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Section 1.

SHIPPING AND SHIPBUILDING SUBSIDIES

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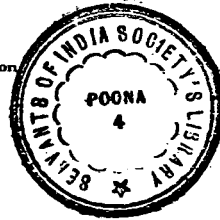
Trade Promotion Series—No. 129

SHIPPING AND SHIPBUILDING SUBSIDIES

A Study of State Aid
to the Shipping and Shipbuilding Industries
in Various Countries of the World

By

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FOREWORD

The first comprehensive report on the subject of Government aid to merchant shipping published by the Bureau of Foreign and Domestic Commerce was Special Agents Series No. 119, which appeared May 1, 1916. That report, by Commercial Agent Grosvenor M. Jones (now chief of the finance and investment division of the bureau), emphasized the ship-construction and navigation subsidy systems of various countries which were operative from about 1880 to 1914. The postal-contract system was considered from about 1860, with mention of earlier contracts. Certain indirect aids to the shipping and shipbuilding industries also were discussed.

On August 1, 1923, the bureau issued a revised report on the subject, by the same author and under the same title and serial number as the 1916 report. The 1923 edition dealt particularly with the effects of the World War on shipping, special emphasis being given to assumption of control of shipping by governments during the war period.

The present study is a restatement of the subject, with important additions. These latter include an analysis of subsidy programs of the principal maritime nations of the world as established for periods of 10 to 25 years by laws enacted between 1923 and 1930; a detailed account of subsidies from the beginning of steam navigation, and of government ownership and operation of steam shipping during a 30-year experimental period from about 1830 to 1860; a statement of economic and political forces which influenced national protection of the shipping and shipbuilding industries of maritime countries; and, finally, a review of coasting-trade restrictions as of 1930, and a statement of maritime-credit provisions recently adopted.

This third report is issued in response to an increasing demand for official information on the subject created by postwar shipping legislation in the United States, particularly the public interest aroused by the merchant marine act of 1928. It has been prepared in the transportation division by Jesse E. Saugstad, special agent, under the supervision of A. Lane Cricher, chief of that division.

FREDERICK M. FEIKER, *Director,*
Bureau of Foreign and Domestic Commerce.

SEPTEMBER, 1931.

SHIPPING AND SHIPBUILDING SUBSIDIES

GENERAL STATEMENT

OCEAN SHIPPING IN WORLD ECONOMICS

International shipping is rooted in the necessity for large-scale exchange of basic commodities between the peoples of the earth. Passenger travel may be curtailed without serious national consequence; interference with the movement of overseas mails may now be mitigated by cable and radio communication and by air transport; stoppage of the transborder movement of finished products would react unfavorably on both the exporting and the importing country; but stoppage of the world flow of basic commodities would have a paralyzing effect on the progress of nations.

Without cargo carriers on the world trade routes the Asiatic would not burn American kerosene in his lamp, nor distant markets consume American wheat; the European could not so cheaply cultivate intensively an unproductive soil; the American could not so cheaply produce a large volume of high-grade steel; the Briton would lack his supply of fresh New Zealand mutton and Argentine beef. It is the carrier of basic commodities in large quantities and at low rates which renders possible the concentration of materials, machines, and men at strategic points where this combination may most efficiently produce an industrial product; it is the refrigerator ship which makes the food products of one area the daily diet of the world.

LIMITATIONS IMPOSED BY NATIONALITY

Nationality determines the political and economic conditions under which a ship operates. The owner of a United States vessel, for example, buys his repairs, part of his labor, part of his supplies, and frequently the ship itself in a nationally protected domestic market. His stock-in-trade is ship's space; this he sells in an unprotected, competitive world market. He looks to the national interest which may be bound up in his business to neutralize any resultant handicap. National interest raises political and naval problems entirely aside from any economic advantages that may accrue to a nation through a national commercial fleet. In the United States such problems become the concern of the Government under the common defense, general welfare, and regulation of commerce clauses of the Constitution. In a similar manner other governments become directly interested in the principal activity of the seas—the carrying trade.

The international character of the shipping industry requires national legislative definition of status and regulation by each na-

tion, governing the ships that are subject to that nation's sovereignty. By commercial treaties and by parallel legislation nations equalize many shipping conditions of an operative nature, but in the final analysis the owner of a ship finds himself restricted in certain directions by national and economic law. He may have positive national advantages over the ships of many nations, but he will invariably find ships of other nationalities which enjoy certain advantages that are not his. Thus he faces a choice of operating his ships under the flag of the foreign nation which offers him the best advantage in the trade wherein he is engaged, or of operating his ships under the flag of his own country in consideration of certain benefits that may thereby accrue.

DEVELOPMENT OF THE COMMON CARRIER

The spirit of intense nationalism that has prevailed in the relationship existing between many governments and their national shipping since the World War has greatly stimulated the principle of granting government credit or loaning public funds in aid of the shipping and shipbuilding industries.

This development is coincident with the refinement of overseas shipping services and the consequent increasing importance of liner services as compared with the pre-war preponderance of tramp operations. The ascendancy of the liner over the tramp has raised the competitive factors of more, larger, faster, and costlier ships, concentration of services, and consequently greater capital requirements.

EFFECT OF THE METAL SHIP

The earlier efforts of national governments in the establishment of national merchant marines centered about the development of the steam-driven metal ship. The factors requiring consideration were those of lack of native ores from which to build metal ships, lack of coal necessary for metal production, and the general lack of experience and capital on the part of the shipping industry in its earlier attempts to engage in liner services.

A century ago shipping was still largely a matter of personal, family, or community venture, involving a relatively small investment in vessels and carrying a relatively high type of cargo suitable for trading or barter. Ships were maritime peddlers that traded their way over the world and returned to home ports after long and indefinite absences. Ships were floating salesrooms as well as delivery vehicles for owners who owned both the cargo and the ships and frequently traveled with them.

Greater community interest in shipping, with the gradual rise of the vessel as a common carrier whose owners depended solely on the vessel's earnings for income on their investment, was a more recent development that broadened gradually into a blanket of tramp tonnage and a skeleton of liner services spread over the face of the globe in search of cargo.

Changes in the freighting trade

With the development of industrial practice came the necessity for large-scale raw-material transportation. Factories the world over became dependent upon the free flow of materials, usually of low

grade and large bulk and unable to sustain high freight charges. The metal ship was at the same time a product of the industrial age and a contributor to industrial development inasmuch as it made possible great carrying capacity per unit of power.

During sailing-ship days cargoes were scattered in many ports. Shipping was a way-freight business so long as it was carried on by small, light-draft sailing vessels and so long as there were no adequate land transportation systems for long hauls of cargo to seaports. With the development of the metal ship and its greater size and carrying capacity and with the development of the railways and their long-distance hauls, came the natural concentration of cargoes in larger ports in great terminals equipped to serve huge vessels of deep draft. The character of the trade became that of concentration of capital, cargo, and ships in enormous volume.

During this process governments looked mainly to port equipment, to schemes for aiding and equalizing construction costs incident to the development of steel-ship building, and to absorption of costs naturally involved in the gradual establishment of liner services essential to fast mail communication. While the aid thus given was more of a technical than of an economic nature, governments nevertheless aided the establishment of the modern liner.

LINER SERVICES AND THEIR CAPITAL REQUIREMENTS

The rapidity of the development of liner services during recent years has been disproportionate to the private capital available, resulting in a large measure of dependence upon government credit or government loans. France, Italy, Sweden, Japan, Spain, the United States, and other countries have officially adopted maritime-credit schemes.

Liner services may be considered both a cause and an effect in stabilizing market conditions. Vast terminal storage facilities, elevators, cooperative marketing practices, and fast-working terminal equipment are placing the producer in a better position to develop regular markets. Tramp shipping is losing importance as the world becomes less influenced by seasonal fluctuations. The result is stabilization and a tendency to employ vessels operating on regular schedules.

The German system prior to the war was that of liner services as extensions of the land and inland-waterway systems to form a continuous line of movement for industrial products from the interior to foreign markets. The two largest shipping organizations in the world, the Hamburg-American Line and the North German Lloyd, were part and parcel of the German cartel system of controlled production and distribution in addition to being members of the usual shipping conferences and the North Atlantic shipping pool.¹

The development of liner services with definite schedules and known tariffs is significant. Service, which has become the watchword of industry, is insisted upon equally in ocean transportation.

SPEED AS A COMPETITIVE FACTOR

No factor in the performance of sea services raises more serious question in the mind of the experienced ship operator than that of

¹ Wiedenfeld, Dr. Kurt: *Cartels and Combines*, p. 11. League of Nations, 1927.

essential speed. He must equal the service provided by competitors and at the same time earn profits for his company. His problem is meeting these conditions with vessels of the proper economical speed.

The requirements of speed, size, and type of vessel for a given trade route are determined principally by the character and volume of the existing and prospective traffic, by port facilities, and by current scientific knowledge of design of hull and type of propulsion. In laying down new ships for a specified trade, the owner draws upon his past experience of that trade and competitive conditions to gauge present and probable future demand for service.

The factors of size and type may be eliminated only in the case of ships that are designed for a special service, for example, fast coastwise or short-run mail and passenger ships or fast carriers of perishable cargo.

In the overseas passenger trades, if the North Atlantic (where somewhat special conditions obtain) be excepted, the advantage of fast ships is open to question, except in so far as increased speed may be secured through efficient operation of the ship. High-speed ships, with their disproportionally high costs, are obliged to distribute these costs to passengers and to freight. In the longer trades, quick 4 or 5 day passages can not be made, and the disadvantage of a day or two on the voyage will not materially affect the traffic. Particularly is this the case in the longer trades in which moves a heavy flow of immigrants to whom the problem of time is of less importance than the cost of their passage. In so far as the speed of the ship may be accelerated without greatly increased cost, or where such an increased cost may be absorbed by higher freight rates or passenger fares in response to demand, faster speed for passenger ships is desirable from a commercial standpoint. If requirements of speed are to be extended beyond this point, the owner must look to some other source of income to absorb the difference in his costs.

EFFECT OF SPEED UPON SIZE

Increasing speed means progressive increase in size and costs, if the ship is to be economically operated. Historically the development of sea speed resulted in the gradual filling of the hull with machinery until ships in the North Atlantic services had barely 5 per cent of their displacement available for commercial purposes. Striving after speed meant higher power, larger engines, more boilers; more boilers meant more weight, more bunker space and coal. The increased weight required more power and this, in turn, larger dimensions, producing a vicious circle in which traveled the naval architect and the marine engineer seeking how and where best to compromise one factor with the other. On their skill depended (and still depends) the effectiveness of the ship in meeting the general objectives of regularity, high speed, safety, and earning power.

In the process of attaining speed yet retaining earning power, ponderous reciprocating engines gave way to large direct turbines; large low-speed direct turbines gave way to small high-speed turbines driving through gears; smaller turbines are competing with internal combustion engines and electric drive; Scotch boilers and coal fuel are giving way to smaller and faster water-tube boilers and oil fuel;

and oil-fuel weight was reduced again by the internal combustion engine.

One authority, in treating the problem of faster cargo-and-passenger steamers for trans-Atlantic service, thus summarizes the results of calculations based on twin-screw steamers to carry 3,740 tons of cargo on 27-foot load draft, length and breadth being increased and block coefficient reduced as speed is increased:

TABLE 1.—RELATION OF SPEED TO SIZE OF VESSELS

[Twin-screw steamers to carry 3,740 tons of cargo on 27-foot load draft]

Item	Ship No. 1	Ship No. 2	Ship No. 3	Ship No. 4
Mean speed on service..... knots.....	18	19	20	21
Length..... feet.....	560	605	650	695
Breadth..... do.....	66	70.5	75	79.5
Depth..... do.....	56	56	56	56
I. H. P. on service.....	16,600	21,250	26,750	33,000
Weight:				
Hull..... tons.....	9,100	10,600	12,130	13,690
Machinery..... do.....	3,150	3,740	4,480	5,250
Coal consumed..... do.....	1,800	2,200	2,640	3,100
Coal margin (20 per cent)..... do.....	360	440	530	620
Reserve feed water..... do.....	200	240	290	340
Fixed stores..... do.....	500	580	660	740
Consumable stores..... do.....	400	440	480	520
Cargo..... do.....	3,740	3,740	3,740	3,740
Load displacement..... do.....	19,250	21,980	24,950	28,000
Less quarter of consumables..... do.....	600	720	855	990
Mean displacement on service..... do.....	18,650	21,260	24,095	27,010
Block coefficient.....	0.680	0.674	0.668	0.662

Source: "The Cost of Speed," by Percy A. Hillhouse, in *Brassey's Naval and Shipping Annual* for 1921-22.

Relation to cargo capacity

In this example the cargo-carrying capacity and freight-earning ability are kept constant. If the speed of the 18-knot ship (No. 1) is increased to 21 knots with no change in dimensions of the hull, the cargo capacity will be reduced to 2,800 tons at 19 knots, 1,625 tons at 20 knots, and to no cargo space at 21 knots, although the power required will be the same as that of ship No. 4. If the block coefficient of the 18-knot ship is reduced and the ship driven at 21 knots by 25,750 horsepower, the cargo capacity will be reduced to 2,650 tons at 19 knots, 1,480 tons at 20 knots, and 320 tons at 21 knots, with an increase of one-third in fuel cost and reduced commercial possibilities, unless fortified by higher passenger rates and freight rates or subsidies.²

The "consumables" item assumes that water ballast on the voyage is added equal to one-half of the weight consumed in order to maintain stability and trim so that at mid-voyage the mean displacement is equal to the starting weight less one-quarter of the weight of fuel stores and fresh water consumed to that point.

² Imperial shipping committee report on the economic size and speed of vessels trading between the United Kingdom and Australia and on the subsidies necessary to maintain speed in excess of the economic speed. 1923.

EFFECT OF SPEED UPON FIRST COSTS

The Imperial Shipping Committee summarizes its findings on first costs of combination cargo-and-passenger vessels in the longer trades designed to use the Suez Canal as follows:

TABLE 2.—RELATION OF SPEED TO FIRST COSTS OF VESSELS

Ship	Dimensions, feet	Gross tonnage	Average speed, knots	Ratio of first cost	Ratio of operating costs	Dead-weight ton capacity
A.....	580 by 66 by 49.....	15,500	16	100	100	3,500
B.....	600 by 72 by 50.....	18,500	18	125	130	(¹) Nil.
C.....	635 by 74.5 by 51.....	21,500	20	160	180	Nil.
D.....	760 by 87.6 by 60.6.....	30,704	25	250	290	Nil.

¹ Not stated.

On this basis, increasing the speed from 16 knots to 18 will increase the first costs by 25 per cent and the operating cost by 30 per cent. An increase from 16 knots to 20 will result in a 60 per cent increase in first cost and an 80 per cent increase in operating cost, with a decrease in cargo capacity from 3,500 tons to no cargo capacity if equipped for a full complement of passengers and with bunkers complete.

Increase on low-grade cargo carrier

The foregoing calculations relate to the high-grade cargo-and-passenger liner. To increase the speed of a 6,000-ton cargo ship from 10 to 11 knots will require the following alterations: Finer block coefficient; 39 per cent increase in indicated horsepower, with a consequent increase in machinery weight of 100 tons; increase in dimensions to offset these conditions and to maintain carrying capacity; and a 60-ton increase in weight due to increase in dimensions.

The result will be to increase the cost of the ship by 16 shillings (\$3.89) per dead-weight ton in British yards—4 shillings (\$0.97) being added to the cost per dead-weight ton of the hull and 12 shillings (\$2.92) per ton for the increased power. It is estimated that on this type of hull a reduction in block coefficient of 0.02 will cause a loss of 200 tons in dead weight and thereby increase the cost by about 6 shillings (\$1.46) per ton.

Depth, the cheapest dimension of a ship, increases its cost in inverse ratio to the draft—the less draft the more costly the hull. In the type of ship here referred to, 1 foot less draft will increase the cost 3 to 4 shillings (\$0.73 to \$0.97) per dead-weight ton.³

NEED FOR FINANCIAL ASSISTANCE

Many factors contribute to the inability of the shipping industry to finance its own development. World economic conditions for more than a decade have been completely upset. Shipping during the war period was demoralized and disrupted, suffered huge material loss in tonnage, and was operated largely under centralized Government

³ Fairplay, July 4, 1929, p. 38.

control. Upon attempting to reestablish normal trade relations, the industry faced at the same time lack of modern tonnage and increased demand for fast service.

In addition to the economic upheaval, which was felt first by the shipping industry, there is the changed face of the world—new political divisions, new Governments, and new official regulations affecting shipping. The result is that war-time destruction, a construction holiday, new political world set-up, and the attention received by the shipping industry as a factor in the war have combined to bring it before Government consideration generally.

Shipping is an international business. An international business can not be made a monopoly through governmental edict; for governments can establish absolute control over such an industry only so far as their own nationals are concerned. To offset capital handicaps governments may lend public cash or credit to the shipping or shipbuilding industries at reduced rates of interest. Some governments resorted to this practice with the inception of the postal-contract system, to provide capital for equipping specific lines. Only during the present century has the general principle of revolving loan funds and the lending of government credit with vessel tonnage as security generally been adopted. The various phases of this development are discussed in this study.

SCOPE AND PLAN OF PRESENT STUDY

SOURCES OF INFORMATION

This study is designed as a source book of information on shipping and shipbuilding subsidies by governments of maritime nations.

The material contained in it is based upon official documents and unquestionable technical authority, generally cited in each instance as used. Material on recent developments in other countries has been taken directly from budgets, parliamentary records, and ministerial and departmental reports of the governments concerned and from reports submitted by United States Foreign Service officers abroad.

SCOPE OF THE REPORT

The period covered is 100 years—from the beginning of government interest in steam shipping about 1827–1830 to 1931.

Much interest has been created by the entry since the beginning of the World War of various governments into the field of ownership and operation of commercial ships. While this practice was caused by considerations wholly different from those of a century ago, the results have been similar enough to afford an interesting historic parallel. The operation of steam vessels in the mail service by the British Admiralty, by the postal service of Norway, and by the French Government from about 1830 to 1860 and the transfer of these operations to private capital contain material of sufficient interest to warrant inclusion in the present study.

RECENT CHANGES

The present inquiry is further extended by the inclusion of principal changes in the ship-subsidy programs of governments during the

past decade. The great changes wrought in shipping by the World War brought to an end many laws, agreements, and principles by which governments aided their shipping and shipbuilding industries.

The reestablishment of such principles and the addition of new ones, the reenactment of laws, and the renewal of operating contracts for periods up to 1945 are largely accomplishments of the 5-year period 1925-1929. The Spanish program rests on the law of 1925, the Italian program on the laws of 1926, and the United States commenced extensive contract operations under the law of 1928. Other nations have taken recent action in behalf of their shipping and shipbuilding industries. Present basic laws in several countries indicate subsidy programs which will remain in force until the decade 1940-1950.

While changes in details will likely take place from time to time during the period of effectiveness of the laws now in force, and while additional aid will likely be granted in special instances in some countries, it is expected that the present system of shipping protectionism will remain basically the same for the next 10 to 15 years, according to recently projected programs.

OMISSIONS

Two factors of historic and current importance in shipping protectionism are not included in this study; these are discriminating duties and the effect of labor conditions on the cost differentials in the construction and operation of vessels in various countries. Any scientific discussion of international labor conditions and their effect upon the shipping and shipbuilding industries is properly the responsibility of another executive department of the United States Government. Some casual discussion of labor conditions is included, however, by way of illustration. Labor conditions have a very real bearing upon basic cost differentials, but it is no purpose of this study to draw comparisons between labor conditions as they exist in various countries.

Discriminating duties are historically a policy which for the purpose of modern commerce reached its end in 1850. The three decades from 1815 to 1845 were the transition period in England, but inasmuch as this study begins near the close of that period no discussion of the subject is included.

Discriminating policies became effective in the Mediterranean in 1227 and in England in 1381;⁴ they reached their height in Great Britain in the acts of 1651 and 1660. Leading economic authority considers the policy the product of an age which assumed that anything could be wrought by king's decree, and that the raising of obstacles and the destruction of a competitor's trade were the best means of extending one's own.⁵ The training of British seamen at a time when every commercial vessel was a potential war vessel was an important, if not the most important, factor in the British policy.

Discriminating duties constitute a powerful maritime weapon, and this form of official stimulation of the employment of national tonnage is still found in some shipping and tariff laws.

⁴ Palgrave: Dictionary of Political Economy, Vol. III, p. 8c.

⁵ Idem, Vol. II, p. 361.

GEOGRAPHIC ARRANGEMENT

Extensive treatment is limited in this study to the principal maritime countries, but many others also are included. The United States is the first discussed; then follow the major foreign maritime nations—France, Germany, Great Britain, Italy, Japan, Netherlands, and Norway, each with at least 3,000,000 gross tons of commercial shipping; then come countries which Lloyd's Register of Shipping credits with less than 3,000,000 gross tons. Lloyd's figures as of July 1, 1931, and certain preceding years appear in Table 3.

TABLE 3.—THE WORLD'S COMMERCIAL FLEET¹

Country	July 1—				
	1913	1920	1925	1930	1931
	Gross tons	Gross tons	Gross tons	Gross tons	Gross tons
Total world fleet¹	46,970,113	57,314,065	64,641,418	69,607,644	70,131,040
Principal maritime countries:²					
Great Britain and Ireland.....	18,696,237	18,330,424	19,440,711	20,438,444	20,302,905
United States.....	5,381,147	15,997,303	15,313,552	13,946,846	13,543,947
Japan.....	1,500,014	2,995,878	3,919,807	4,316,804	4,276,341
Germany.....	5,082,061	672,671	3,073,713	4,229,235	4,254,601
Norway.....	2,457,690	2,219,388	2,080,642	3,668,289	4,065,506
France.....	2,201,164	3,245,194	3,511,984	3,530,879	3,566,227
Italy.....	1,521,942	2,242,393	3,028,661	3,331,226	3,336,673
Netherlands.....	1,308,849	1,793,396	2,600,831	3,086,315	3,118,170
Total	38,150,304	47,496,647	53,569,901	56,548,038	56,463,370
Secondary maritime countries:³					
Australia and New Zealand.....	(*)	649,240	836,958	684,899	681,209
Belgium.....	304,316	415,112	542,583	553,037	547,470
Brazil.....	329,637	497,860	465,643	558,777	498,789
Canada.....	(*)	170,500	1,203,061	1,331,801	1,437,372
Chile.....	139,792	103,788	185,758	193,131	184,298
Denmark.....	762,054	863,411	1,059,346	1,088,006	1,145,257
Greece.....	722,782	530,261	897,878	1,390,899	1,397,782
Portugal.....	120,579	275,665	299,921	265,265	276,357
Russia.....	974,178	534,547	322,257	532,096	603,836
Spain.....	840,995	997,030	1,184,721	1,231,737	1,227,370
Sweden.....	1,047,270	1,072,925	1,301,126	1,623,938	1,704,669
Total	5,241,603	6,050,339	8,299,752	9,453,586	9,704,409
Other countries:⁴					
Argentina.....	214,835	150,023	222,760	323,025	327,980
British India and Ceylon.....	(*)	186,323	197,153	195,378	203,705
Cuba.....	61,536	53,439	61,502	(*)	42,721
Estonia.....	(*)	46,277	72,069	72,069	93,397
Finland.....	166,689	210,829	313,143	313,143	312,097
Latvia.....	(*)	52,712	195,527	195,527	206,686
Mexico.....	40,049	(*)	66,863	48,675	41,820
Panama.....	(*)	(*)	97,566	75,497	131,400
Poland.....	(*)	(*)	(*)	52,088	66,156
Rumania.....	45,408	74,549	67,851	68,650	65,921
Turkey.....	157,298	(*)	132,244	177,199	179,287
Yugoslavia.....	(*)	(*)	167,543	302,481	361,606
All other.....	3,059,060	3,136,056	1,448,466	1,761,668	1,930,465

¹ Includes only commercial vessels of 100 gross tons and upwards.

² Countries possessing fleets of 3,000,000 gross tons or more.

³ Countries possessing fleets of less than 3,000,000 gross tons.

⁴ Separate figures not available; included in "All other countries."

Source: Lloyd's Register of Shipping.

Use of many sources of information has resulted in some degree of inexactness in the statistics given under the different countries in the body of this report, but these discrepancies are in no case large enough to nullify any deductions drawn from the figures as given.

TERMINOLOGY

No fine distinction in meaning is intended by the employment of synonymous terms in this study of shipping and shipbuilding protectionism. The one English term which historically, officially, and accurately covers the subject is "subsidy." "Subvention," "subvencion," and "sovvenzione" are respectively the French, Spanish, and Italian equivalents for the English word "subsidy."

SUBSIDIES

The term "subsidy" is a recognized part of the British fiscal system and as such represents an historic principle. Thus, so far as shipping services are concerned, sessional papers of the British Parliament, committee reports, treasury minutes, and reports of the British Postmaster General, as well as ocean mail contracts themselves, refer to the fixed annual payment for ocean mail services under contract as "subsidy." Noncontract services on a weight basis are not so described. In this sense the term is a convenient method of designating a fixed payment for certain services to the Government. Australia and Canada describe ocean mail services under the general term of "mail subsidies" in their official yearbooks. The term is extended far beyond the scope of shipping in the British Empire.

Since about 1860 the French budgets have covered the appropriations for ocean mail service and colonial services under the French equivalent of subsidy, namely, "subvention."

The Italian system covers all its required sea services under the Italian equivalent term for subsidy, namely, "sovvenzione."

In Funk & Wagnalls Standard Dictionary, 1930 edition, "subsidy" is defined:

Pecuniary aid directly granted by government to an individual or commercial enterprise deemed productive of public benefit. * * *

And in Webster's New International Dictionary, 1927 edition, as:

A grant of funds or property from a government, as of the State or a municipal corporation, to a private person or company to assist in the establishment or support of an enterprise deemed advantageous to the public; in practice subsidies are chiefly granted in aid of transportation enterprises, as to ship, canal, or railroad companies, bounties on sugar being next in importance. A subsidy may be a simple gift or may consist in the payment of an amount in excess of the usual charges for any service, as in carrying the mails, or the funds to aid in establishing or maintaining a service or equipment larger or more powerful than the state of trade would warrant, as the building and keeping in service of vessels designed for use as cruisers and auxiliaries in war.

BOUNTIES

"Bounty" has been generally employed in the text in designating construction and navigation subsidies in order to distinguish these more specific forms of protectionism from the broader principle of service contracts. In connection with ship construction the term "construction bounties" is used to designate ship-construction subsidies in the form of payments by the State to an owner or builder for building a vessel. In the case of "navigation bounties" the term is employed to designate the principle of payment of public funds to ships for sailing the seas while rendering no particular service to

the government concerned. There is no good reason for the use of the word "bounty" except convenience. If the term "bounty" has any different meaning from the word "subsidy," it may be in an implication of generosity conveyed by the payment of public funds no part of which goes for the payment for services rendered to the State. The implication of generosity, however, should be closely scrutinized, since frequently such payments are in fact refunds of taxes or duties previously collected from the grantee by the State.

The word "bounty" in a general sense conveys the idea of promoting in some way the general public interest. In the United States bounties would find their justification in the general-welfare clause of the Constitution. Payment of bounties is an old method by which governments have induced men to build ships and go to sea. England in the time of Queen Elizabeth paid bounties generally to home-built ships and for many years to the fisheries. Colbert, under Louis XIV, established a system of French shipping bounties (primes) and the enrollment of the maritime population (inscription maritime), and France still gives bounties to the fishing industry. The United States, from its beginning as a Nation to the end of the Civil War, gave bounties to vessels and men engaged in the herring, cod, and mackerel fisheries as a nursery for the Navy. By 1880, however, the bounty system everywhere had either lapsed or become of little moment in comparison with subsidies to passenger ships.

CONTRACT SERVICES

The term "contract services" has been generally used in connection with postal services, colonial services, or services required in the national interest. In some instances the word "compensation" could more accurately be employed as a measure of service in regions inaccessible to other forms of transportation or where competition is sufficiently strong to insure that public tenders will represent the cost of the service. Ocean contract services of all descriptions, however, require scheduled sailings, and the requirement of regularity is not always measurable in terms of money. It is customary, therefore, under nearly all circumstances to include in a contract a sum in excess of the actual cost of the service in consideration of the fundamental requirements of mail service—dependability and regularity.

The term "contract service" when used in this text may cover any of several forms of agreement entered into between a person or corporation and a national government for sea services for the purpose of carrying the public mails, transporting government personnel and troops, maintaining regular communication with colonies, and other services. "Ocean mail contract" and "postal contract" are employed without differentiation of meaning.

No distinction has been drawn between the payment of public funds and the granting of concessions which are beneficial to the shipping and shipbuilding industries; in other words, no direct or indirect classification is used. The subject of shipping and shipbuilding subsidies has suffered from too great an attempt to obscure its real meaning by euphemisms and from an attempt at too meticulous classification and too great precision of language. The result has been popular misunderstanding and the suspicion born thereof.

COASTING TRADE

In the sense of shipping protectionism the terms "coastal trade," "coasting trade," "coastwise trade," "intercoastal trade," and "cabotage" are all somewhat synonymous variations in terminology of the principle that a country may restrict trade between or within ports of its own sovereignty to vessels of its own nationality. The principle applies to ports of one geographic entity or may be extended to include ports of a number of geographic entities separated by stretches of open sea but under a single sovereignty. The latter application of the principle may also be termed "colonial trade."

TONNAGE

The unit of measurement of vessel tonnage as expressed in the text of this report is generally the gross ton, although in some instances net tonnage and dead-weight tonnage figures appear.

Gross tonnage.—Gross tonnage is the capacity of the spaces within the hull of a vessel and of the closed-in spaces above deck available for cargo, stores, passengers, or crew, with certain exceptions, expressed in tons of 100 cubic feet. This term is an indication of size and is used primarily to designate passenger or combination passenger-and-cargo vessels. Gross tonnage has no fixed or exact relationship to a vessel's commercial possibilities or earning capacity.

Net tonnage.—Net or register tonnage is what remains after deducting from the gross tonnage the spaces occupied by the propelling machinery and fuel, crew's quarters, master's cabin, and navigation spaces. It is the usual basis for tonnage dues and port charges; in other words, in taxing a vessel such taxes are based upon the revenue-earning spaces.

Dead-weight tonnage.—Cargo vessels carry both gross ton and net or register ton classification; but since the business of a cargo vessel is to move goods in volume the unit of measurement commercially employed for cargo vessels is the dead-weight ton. Dead-weight tonnage is the lifting capacity of the ship. It is the number of tons of 2,240 pounds of fuel, water, stores, cargo, and passengers that a vessel is designed to carry with safety. It is the basis for quotation as to cost of construction, sale, and charter and as such is the measure of potential revenue capacity of vessels.

TRADES AND TRADE ROUTES

The terms "trades" and "trade routes" are used somewhat synonymously in discussions of sea services. In mediaeval English the word "trade" meant a path, connected with the word "tread." Its application to sea services was apparently introduced into England in the 14th century from the Hanseatic use of the term in nautical language for "the course or track of a ship." Thus "trade" was used in a transport sense before it began to connote commerce or to designate a number of entities of a certain business or craft. Routes followed by sailing ships became known from their geographic termini, as the "China trade," "India trade," and so on. In the modern sense the specialized commodity services of ships are designated in terms which may have commercial or commodity meanings as well

as geographic meaning; thus the term "banana trade" refers to services, principally between the shores of the United States and Caribbean regions, by vessels especially designed to carry bananas, "nitrate trade" or "nitrate range" to services between the west coast of South America and other regions by vessels engaged in carrying nitrates. The principal trade route between North America and Europe is referred to as the "North Atlantic trade." The essence of meaning in these terms lies more nearly in the transport factor than in commercial exchange as such.

THE UNITED STATES

ECONOMIC DEVELOPMENT AND SHIPPING

The real significance of a merchant marine under the flag of the United States is not limited to any one factor—the supply of necessary tonnage, low freight rates, delivery of national products, and like needs—nor does the national-defense factor alone make imperative a powerful commercial fleet. It is a problem that involves both the actual place now occupied by the United States in world trade and consideration for the future; through force of circumstances quite apart from directed effort the nation may be called upon to assume an even more important rôle in international economics.

The present position of the shipping and shipbuilding industries of the United States is to a great degree the result, not of orderly economic progress, but of an international military emergency that provided the essential excess demand for vessel tonnage on the one hand and upset the established trade balance of the world on the other. How far these conditions may have accelerated the activity of the United States toward permanent commercial ships in the foreign trade can not accurately be measured.

NATURAL CONDITIONS AFFECTING WATER TRAFFIC

COAST LINE

No nation has so extensive a mainland coast line in so high a state of development as has the United States, nor so many ports of great natural advantages and of such strategic distribution for the accommodation of water-borne commerce.

The general coast line on the Atlantic is 1,888 miles long, the Gulf coast 1,629, and the Pacific coast 1,366, a total of 4,883 statute miles. (The actual length of tidal shore line, including offshore islands, is four times as great.¹) Adding an approximately equal distance as a water connection between Texas or Florida and California will give 10,000 statute miles, or between 8,000 and 9,000 nautical miles, as the net extent of water routes required to serve the continental coast line of the United States. Connecting sea routes with non-contiguous territory of 7,000 nautical miles to the Pacific Islands and the Philippines, more than 3,000 miles of open coast line to and including Alaska, and 1,500 miles to the Caribbean Islands result in a total of 21,000 to 23,000 miles of sea routes required to connect the continental coastal regions with each other and with the non-contiguous territories of the nation if the Philippine Islands be included.

Further, the boundary between the United States and Canada (not including Alaska) has a length of 3,980 miles, 2,195 miles of

¹ U. S. Geological Survey Bulletin No. 689, p. 220.

which are through water. The shore line on the Great Lakes is about 3,000 miles, and the shore line of Lake Michigan, which is entirely within the United States, is 1,304 statute miles.

The building of the Panama Canal reduced the distance between continental United States ports on the Atlantic and on the Pacific coasts by 7,000 to 8,000 miles. As the route distance between Portland, Me., and Portland, Oreg., is 6,138 nautical miles via the Panama Canal and 13,787 nautical miles by way of Magellan Strait, the sailing distance is reduced by more than half, thus making a vessel twice as effective in point of sea time, for a vessel may now make a round voyage between Atlantic and Pacific ports by way of the canal in the time required to make the trip in one direction via Magellan Strait. Besides increasing freight earnings through more frequent trips, a vessel may have such earnings potentially increased by its smaller bunker requirements for the shorter voyage, thus releasing more space for cargo. Moreover, the shortened distance and consequent reduction of time have created new types of traffic—cargo of a perishable nature which could not be carried around Cape Horn and other sorts which could not bear the higher freight charges of the longer distance.

OCEAN AND LAKE PORTS

On the continental coast line of the United States there are some 50 seaports. Of these, 15 or 20 are primary ports, with a controlling depth of water of 30 to 40 feet or more and with heavy concentration of railroad service, thus creating the favorable condition of concentration of cargo at strategic points from and to which it may be economically lifted by large seagoing ships.²

On the shores of the Great Lakes are situated seven principal industrial cities, including Chicago, the railroad center of the United States, and the port of Duluth-Superior, which, in point of bulk of water-borne cargo, ranks next after the port of New York, due to the Great Lakes ore movement. The Great Lakes have as yet only minor connection with sea-borne commerce; but when it is considered that the bulk-freight movement on the Great Lakes exceeds the total foreign and intercoastal cargo movement of the United States by some 25 per cent, that the ore movement alone represents 45 per cent of this total, and that this movement is limited to a 7-month season, the importance of the Great Lakes in the industrial and economic scheme is obvious.

Except for the Great Lakes region, the entire territorial connections outlined are not limited to seasonal navigation. Indeed, the natural flow of commerce is enhanced both by seasonal movement caused by climatic conditions and by regional products in universal demand. Thus fruits and vegetables move north, mineral oils, lumber, canned goods, and food products move from the Pacific to the Atlantic, manufacturers of iron and steel, machinery, automobiles, and tobacco move from the Atlantic to the Pacific—to mention only a few examples.

² Corps of Engineers, U. S. Army, and United States Shipping Board: Miscellaneous Series No. 1, Port and Terminal Charges at United States Ports.

WATER-BORNE COMMERCE

For a number of years the water-borne domestic traffic of the United States—under which designation is included all traffic coming within the meaning of the coastal laws—has averaged twice as large in volume as the water-borne foreign trade and has been 40 to 60 per cent greater in value. For 1929 the total commerce in Atlantic, Gulf, and Pacific ports, exclusive of intraport traffic, was 358,526,018 short tons valued at \$21,122,368,445; of which 251,174,333 short tons of a value of \$12,561,033,821 were credited to domestic commerce and 107,351,685 tons of a value of \$8,561,334,624 were credited to foreign commerce.³ These figures are exclusive of the Great Lakes workings.

That portion of the domestic trade which is represented by the intercoastal movement was 9,043,772 long tons in the calendar year 1930, of which 6,502,267 tons moved from the Pacific coast to the Gulf and Atlantic coasts and 2,541,505 tons moved from Atlantic and Gulf ports to the Pacific coast.⁴ Domestic trade between continental United States and noncontiguous territory (including the Philippines) approximated 7,600,000 tons in 1930. This accounts for 16,600,000 long tons of cargo in the intercoastal and noncontiguous territorial trades moving in ocean-going ships, or more than 40 per cent of the cargo volume carried by United States vessels in the foreign trade.

In the calendar year 1930 the total volume of water-borne imports into the United States (including the Great Lakes foreign movement) was 47,562,000 long tons, 52 per cent of which was carried in American vessels; the total volume of exports from the United States (including the Great Lakes foreign movement) was 49,731,000 tons, of which 30 per cent was carried in American vessels.⁵ On a value basis 34.1 per cent of water-borne imports valued at \$2,635,096,567 and 35.3 per cent of water-borne exports valued at \$3,136,300,783 were carried in American ships. In 1929 American ships carried 49 per cent of the imports and 31 per cent of the exports by volume and 31.7 per cent of the imports and 34.4 per cent of the exports by value.

UNITED STATES SHIPPING IN THE FOREIGN TRADE

FACTORS IN PRE-WAR DEVELOPMENT

World industrial development in its modern sense received its principal stimulus during the half century which ended as the World War began. This period witnessed the beginning of mass production, made possible by the evolving of effective steel and machinery processes and of effective methods of transportation of basic raw materials and finished products at low cost. The result was, broadly, that some countries with well-developed natural resources and limited domestic markets found foreign outlets for their finished products

³ Water-borne Commerce of the United States for the calendar year 1929; report of the Chief of Engineers, U. S. Army, 1930, p. 1.

⁴ U. S. Shipping Board, Bureau of Research, Report No. 295, Water-borne Traffic for Calendar Year 1930.

⁵ U. S. Shipping Board, Bureau of Research, Report No. 275, Calendar Year 1930.

and depended increasingly upon imported raw materials and food and became increasingly dependent upon ships, while other countries developed their natural resources with resultant increase of domestic markets and increase of exports of raw materials.

During the 40-year period ended in 1910 the national wealth of the United States increased sixfold, the railway mileage fourfold, Lake Superior iron-ore production sixfold, and coal production tenfold. During the same period the value of the water-borne foreign trade of the United States increased threefold, resting principally on agricultural exports, of which cotton ranked first.

The commercial fleet of the United States increased from 4,195,000 tons in 1870 to 7,386,000 tons in 1910. The fleet engaged in the coasting trade increased from 2,678,000 tons to 6,594,000 tons, while the fleet registered for foreign trade declined from 1,517,000 tons to 792,000 tons. Registered vessels carried 35.6 per cent (value basis) of the water-borne foreign commerce of the United States in 1870 and 8.7 per cent in 1910.

The value of the water-borne foreign commerce carried in United States vessels in 1870 was \$352,000,000, and in 1910 \$259,000,000; stated otherwise, in 1910 tonnage amounting to but 54 per cent of the total tonnage registered for foreign trade in 1870 carried cargoes that were 74 per cent of the value of the 1870 cargoes, which is accounted for by the development of the metal ship and its greater efficiency or by a larger share of merchandise of higher value carried by ships under United States registry.

Growth of the United States commercial fleet during this period was entirely out of line with the enormous expansion of world commerce; the American fleet increased in tonnage, but the requirements of the country's own domestic commerce were such that the greater part of the increase entered the coastal and Great Lakes trades and not the foreign trade. This period of internal development began when the steel ship was still an experiment, when the American steel industry did not exist, and when the transition from wooden sailing ships to steel steamers was setting in. During this era of internal expansion the foreign trade of the United States was maintained largely because of the vast natural resources and the virtual monopoly of cereals, meats, cotton, petroleum products, etc., which other countries needed and purchased but carried away in vessels of their own nationalities.

THE POSTWAR SITUATION

TONNAGE SUPPLY AND DEMAND

The great economic handicap that has existed in international shipping since the World War is not lack of cargo to be carried, but too great a supply of vessel tonnage in the world market with which to carry it. Until recently cargo volume, whether considered on a world basis or on the basis of volume in the foreign trade of the United States, has increased rather than decreased, furnishing increasing employment for ships. During the period from 1914 to 1930 the potential ocean-going power-driven commercial fleet of the world made a net gain of 20,000,000 gross tons, or almost 50 per cent, to balance which world trade must be increased by 30 to

40 per cent over the pre-war volume; but as the Chamber of Shipping of the United Kingdom points out in its annual report for 1929-30:

World trade has in fact increased only 10 per cent on pre-war figures. World tonnage has continued to expand at the normal pre-war rate; trade has not. Tonnage under flags other than the British has been created in excess of the normal pre-war rate. There is therefore a great excess of supply over demand, resulting not only in idle tonnage but in the equally serious problem of under-employment of tonnage in movement. Greater speed resulting in more voyages per annum has increased the amount of tonnage available.

Vessel tonnage seeks employment, irrespective of ownership or nationality. Thus, despite the fact that the great preponderance of additional tonnage under the United States flag upon completion of the war-construction program was owned by the United States Government, this tonnage sought commercial employment. So long as the ships of other nationalities remained under the control of their respective governments or were diverted into other channels of trade, the ships under United States registry entered heavily into the carriage of foreign trade; as the ocean-freight market declined, a portion of this tonnage sought employment in the coastal trades. Upon saturation of the coastal-tonnage market and the return of foreign shipping, released from government control, to normal activities, the freight market in the overseas trade fell to a point where employment was unprofitable. The situation became especially acute for owners who had purchased tonnage on the high war market. Further, the return of foreign shipping to commercial operation meant the return of experience to established trades, whereas United States shipping had few established routes and little experience in the foreign trade. The result was a preponderance of United States tonnage seeking employment against a declining freight market and an increasing competition. The problem became principally that of the establishment of trades in which employment for this excess tonnage might be found.

Not only the return of shipping into trades from which it had been diverted during hostilities, but also new tonnage constructed since the war and during recent years, have had a marked influence in world shipping. The newer tonnage has provoked even keener competition, is of high efficiency and low unit cost, and has tended to hasten obsolescence of older vessels.

PRESENT-DAY SPEED REQUIREMENTS

A further problem of United States shipping engaged in foreign trade is the providing of service comparable with that offered by vessels of other nationalities. No single factor in this problem is more important than the speed of ocean vessels and the relationship between speed and costs. Quite apart from economic necessity and the perishable nature of cargo are considerations looking to competition, efficient tonnage, and the dictates of organized traffic demand.

Human cargo in the form of passengers, negotiating cargo in the form of mails, perishable cargo, and valuable cargo carrying high insurance rates require fast transportation in line with the modern trend toward faster and more frequent communication generally. They are in categories quite apart from the great bulk of ocean com-

merce—basic materials such as ores, coal, grain, and other commodities of comparatively low value whose freedom of movement depends upon low cost of carriage.

The speed of freight vessels is tempered by the ability of the cargo carried to bear increased costs. Increased speed means increased costs and these costs must eventually be passed on to the goods transported. The great bulk of United States foreign water-borne trade is carried in the 10½-knot ship, and in this class the American vessel compares favorably with similar foreign vessels in essential character of ship and in general competency of operation. The newer cargo vessels, recently constructed abroad, appear to be more efficient in unit costs of construction and operation.

When consideration is given to the higher classes of liner services the competitive situation for United States ships appears more unfavorable. The widening gap between the qualities of foreign competitive new liner tonnage and the older United States ships in the foreign trade, the fact that the United States Government has a direct owner-interest in a representative portion of this tonnage, the public interest involved in disposing of the Government owned and operated tonnage and its transfer to private hands—these and other attendant conditions constitute reasons for consideration of a public-aid program with the object of making possible the continued employment of United States commercial vessels in the essential foreign-trade routes, and development of new tonnage to assure a degree of permanency of operation.

Movement of mail

Historically the movement of the mails constitutes the first influence toward increase of speed in power-driven ships.⁶ The importance of reduction in time in the overseas-mail service lay principally in the fact that letters then were the only medium (except the personal interview) for transacting overseas business and ships provided the only means of communication between areas separated by water.

Negotiation of business between areas separated by water is today carried on largely, if not principally, through electric communication—telegraph, cable, telephone, and radio. Cables of a total length of 370,000 miles now girdle the globe. This has naturally in principle reduced the relative value of overseas mails as a factor in negotiating international business.

Two classes of mail are not yet affected by electric communication—(1) documents of title covering shipments of goods and (2) the parcel post in international trade. Since the principal trade regions of the world offer more frequent opportunities for dispatching cargo than for dispatching mail, the mail services covering these trades must be sufficiently fast to pick up shipping documents upon their completion after the sailing of the cargo, pass the cargo carrier, and land the mail at its destination in sufficient time to have it worked and delivered prior to the arrival of the cargo ship.

⁶The early elimination of time is illustrated by a statement contained in an official British paper (Parliamentary Papers, Vol. XCV, 1852-53, Paper No. 195, "Contract Packets") to the effect that the time required for a round-voyage trip from England to the United States prior to 1840 ranged from 45 to 105 days, whereas the time had been reduced through the Cunard subsidized mail service to an average period of 24 days.

Air mail competition

Ocean mail services per se face the probability of decreasing utility in principle, due to developments in aviation—a mode of transport eminently suited to the carriage of first-class mail and the delivery of shipping documents. While this has no immediate effect on the trans-Atlantic or trans-Pacific movement, it is already felt in shorter routes and in regions where air services parallel sea services. A typical example of air-mail service and of Government aid in its furtherance is to be found in the trans-Mediterranean French services. British development of air services includes a weekly mail service to India by way of Egypt. A similar development by the United States is the circumnavigation of South America by air mail and passenger services excepting a short gap between Santos, Brazil, and Buenos Aires, Argentina. These services mark the first appearance of a new type of competitor in the world's subsidized ocean trade routes. At present British ocean mail for the Far East, India, and Australia is transported by rail across continental Europe to British subsidized ships calling at Marseille or Toulon.

Movement of cargo

From a commercial standpoint, the question of speed as applied to the cargo ship tends naturally to become self-adjusting. Extra cost of speed in a cargo ship must be borne by the cargo, unless the trade is so arranged that the ship may increase its revenue by more frequent passages and increased annual tonnage capacity. Type of cargo and the character of cargo-handling equipment in ports have a bearing on the time a ship can spend at sea.

Ships do not earn revenues while tied to docks. They earn revenue only when at sea. Therefore, any development tending to increase the proportional amount of the ship's time at sea will tend to offset the capital and operating charges that accrue against a ship when it is in port.

In a general sense, however, regularity and frequency of sailing are of more importance to cargo than speed alone. The increasing preponderance of the liner during the postwar period supplies the best evidence as to the value of this type of service. On the endless belt of the liner stream may be shipped small parcels of cargo at regular intervals, which relieves both the seller and the buyer from carrying large warehouse stocks, with consequent tie-up of capital and risk of loss from depreciation and market fluctuation. In fact, the liner becomes a portable warehouse in a sense similar to the delivery system of chain stores, whereby the stock of goods is constantly in transit, thereby producing even distribution and less disturbance to markets. Seasonal peak loads are limited to the tramp ship, which normally supplies the extra tonnage necessary for extra seasonal movement.

A postwar development is the great number of high-speed large-size cargo liners which have been built for European owners. These vessels have been most potent factors in the promotion of faster and larger cargo vessels in the United States.

The time element

Increased speed in liner services must be considered closely in its relation to actual time saved in business days. If a liner is scheduled

to arrive at its destination on Wednesday morning, there is no advantage in arriving Tuesday evening or night if the ship can not enter the port and commence discharging cargo until the following business day. While every liner should carry sufficient excess of power to enable it to make up time lost through weather or port conditions, there is no point in steaming at the speed limit unless it results in a saving of working time in port.

A hypothetical example: Suppose liner "A," capable of sustaining an average sea speed of 14 knots, sails at midnight on Tuesday and is scheduled to arrive at its destination on Wednesday morning, 8 days later, over a course of approximately 2,450 miles. If the speed of the ship were increased to 15 knots, the passage would take 12 hours less and the ship would arrive Tuesday evening. This would be of no advantage unless the ship could enter and commence discharge of cargo, while the cost of construction and operation of the vessel would be increased. If the speed were increased to 16 knots in this instance, an entire day would be saved; if increased to 17 knots no advantage above a 1-day saving will result, while 18-knot speed will save two days in passage. On the other hand, a competitive ship, "B," capable of 15 knots could complete its loading and sail Wednesday noon, 12 hours later than the 14-knot ship, yet arrive at the same time as "A." In this case ship "B" will have the advantage of an extra half day's work prior to sailing.

Daytime port calls, arriving and departing time of mail and passenger trains, tides, and other factors produce varying effects on speed requirements. Simple increase of speed of ships means nothing unless a definite objective is attained; and this objective must be considered in the light of increased construction and operating costs.

PRESENT-DAY SHIPBUILDING COSTS

Completion of the Government's ship-construction program in 1922 and the return of shipyards to private work immediately lent gravity to the problem of competitive building costs. Construction costs vary with speed, dimensions, type, and equipment. For this reason no general comparison will cover all types of ships. Competitive bids for specified services provide about the only sure guide, though investigations and technical discussions provide evidence of the trend.

One authoritative analysis of postwar ship-construction costs⁷ distributed the cost of constructing a first-class passenger and cargo steamer in the British market roughly as 60 per cent to materials and equipment, 32 per cent to labor, and 8 per cent to general overhead. The cost of the hull is distributed as 60.5 per cent to materials and equipment, 33.3 per cent to labor, and 6.2 per cent to overhead such as administration, power, and taxes. The engine and boiler costs are distributed 59 per cent to materials, 28.8 per cent to labor, including administrative expense, and 12.2 per cent to overhead items of power, maintenance of plant, taxes, etc. The postwar proportionate cost of the hull to the total cost of hull and machinery is 67.5 per cent.

⁷ Report of Balfour Committee on Industry and Trade: Part II, Survey of Industries, pp. 139-143.

This general classification of materials and equipment is based upon the cost of raw and finished materials as received by the shipbuilding industry. Raw materials include steel and iron plates, angles, castings, forgings, steel ingots, tubes, and pipes. Finished machinery includes windlasses, steering gears, pumps, and refrigerators, while among subsidiary finished articles received are nautical instruments, cabin furniture and upholstery, gauges, cocks, valves, paints, and antifouling compositions.

In a statement on conditions in the shipbuilding industry of the United States in 1928^a the National Council of American Shipbuilders distributes the cost of a 10,000-dead-weight-ton freight steamer as 50.2 per cent to materials and 39.94 to labor. For a motor vessel, the council substantiates the proportions given in the British report, 60 per cent to materials and 31.2 per cent to labor. In these instances material costs do not include freight charges, which are carried at about 4.6 per cent of the total cost of the ship.

Material and labor cost differentials

In the principal shipbuilding markets of the world material costs do not vary sufficiently to be made a clear example of cost differentials. According to the National Council of American Shipbuilders, shipbuilding materials in the United States and Great Britain cost nearly the same in 1925, lumber, copper, brass, canvas, and boiler tubes in the British market averaging higher and paint, chain cable, rope, propellers, linoleum, plates, shapes, and bars averaging slightly lower than United States prices.

Labor rates vary greatly among European markets themselves and in their relationship to the labor market of the United States. In a comparative list of 35 labor ratings covering hourly wages of first-class mechanics employed in shipbuilding in the United States and Great Britain, the average hourly rates in the United States and British yards prevailing in November and December, 1927, were as 65 cents is to 28 cents, the British average rate therefore being 43 per cent of the United States rate. Since this is not a weighted average, it does not represent true costs, but refers only to the average wages of ratings employed in shipbuilding.

Overhead charges vary greatly. According to the National Council of American Shipbuilders, the overhead charges in British shipyards average 46 per cent of the overhead charges of shipyards in the United States on specified types of construction.

Calculation of construction-cost differentials

Construction-cost differentials between ships of different nationalities are based upon the cost to the constructor and vary in turn with the national conditions which govern in each country. A process by which cost differentials between nationalities may be roughly determined can be made clear by a simple example. In this case the market value of the ship is known. The distribution of costs is based upon the above-cited cost distribution for a passenger ship,

^a Testimony before the Committee on Merchant Marine and Fisheries of the House of Representatives, Feb. 29, 1928.

which will not give a true result for the vessel under consideration but will serve to illustrate the method.

In the spring of 1929 a 7,500 to 8,000 dead-weight ton, 2-deck, 10-knot cargo steamer was quoted at £9 10s. (\$46.23) per dead-weight ton in British yards, laid down for completion in 10 months. Such a ship would cost, therefore, from \$345,000 to \$370,000 when completed in British yards.

On the basis of the British cost distribution of 60 per cent to materials, 32 per cent to labor, and 8 per cent to overhead, the cost of a 7,500-ton ship would be \$210,000 for materials, \$110,000 for labor, and \$25,000 for overhead. If the ship were built in the United States, the material costs may be left the same, \$210,000, but the labor cost would be increased to \$250,000 and the overhead to \$55,000, a total cost of \$515,000 for the ship. The resulting excess between British and the United States costs, \$170,000, is equal to 50 per cent of the total cost in British yards. Moreover, on the excess of \$170,000 the owner will be obliged to carry annual capital charges, to cover insurance, depreciation, and interest, amounting to 15 per cent, or \$25,500, for the first year.

On an 8,000-dead-weight-ton vessel this annual cost will be increased by about \$1,200, or a total sum of \$26,700 as the excess capital charge on the construction-cost differential during the first year of operation. This places a handicap of approximately \$3.33 per dead-weight ton for construction-cost capital differentials for an 8,000-ton ship during the first year.

Spread not so wide on higher-type vessels

These calculations apply to the ordinary type of cargo ship. The National Council of American Shipbuilders is authority for the statement that on the higher types of vessels, such as high-class passenger and combination cargo-and-passenger vessels, where less-standardized design and practice may be employed, the cost differential between British and American yards will become less.

In the only United States standardized shipyard practice comparable to the British example cited, that of Great Lakes shipbuilding, costs in 1929 ranged perhaps from \$68 to \$70 per ton against an approximate \$46 to \$50 per ton for low-grade standard British cargo steamers.

United States and British examples are cited because labor rates of the two countries are the most nearly comparable.

PRESENT-DAY OPERATING COSTS

Operating costs of cargo vessels are broadly classified into two groups, one chargeable against the cargo and the other chargeable strictly against the vessel itself. The principal items of cargo expense are stevedoring, port and entry charges, commissions, fees, and brokerage. These charges usually are dependent upon the custom of the port and will therefore, with very few exceptions, be the same for all vessels (regardless of nationality) which use the port.

Vessel-expense items consist principally of wages, food, stores and equipment, fuel, and repairs. Of these, fuel, stores, and supplies, and, in most instances, repairs are fairly similar on all ships ever

if they vary in different ports. In the case of United States vessels, "repairs" is a protected item in that a vessel is required to pay a 50 per cent import duty on repairs made in foreign ports unless done by reason of damage sustained by stress of weather or for the safety of the ship.⁹ The largest item of vessel expense while at sea is fuel, which may vary from 30 per cent of the total daily sea expense for a motor ship up to 43 per cent for a steam-driven vessel. The fuel item averages down to a range of 19 to 23 per cent of the total voyage expense account.

The second vessel expense is that of wages, which may average from 15 to 18 per cent of the total voyage expense; and the food, stores, and equipment expense will run from 7 to 8 per cent of this total.¹⁰

All these items affect freight rates and thereby a vessel's ability to meet competition.

Wage differentials

The greatest differential between the vessel-operation expense of United States ships and ships of other nationalities is that of wages. Cost of repairs, stores, and fuel may differ in various parts of the world, but if so, they are the same to all ships of all nationalities.

Wages are based upon the national standard of living and are high or low in agreement with that standard. National legislation or regulation usually prescribes the number and ratings of the crew according to type and trade of vessel. Generally officers are required to be citizens of the nation whose flag the vessel flies.

Taking a United States cargo ship as an example it is found that the crew wages represent from 15 to 18 per cent of the total voyage expenses, depending upon the size of the vessel, the type of propulsion, and required personnel for the ship's operation. All officers must be United States citizens. The crew does not necessarily represent full citizenship (by 1932 two-thirds must be citizens on all ocean mail ships under the act of 1928) but does represent full manning and wage scale, and this is reflected in an operating sense in somewhat the same manner as labor costs are represented in the original cost of the ship.

As illustrating operating-cost differentials, a cargo ship of 8,000 to 9,000 dead-weight tons under the United States flag will have a wage cost of approximately \$100 a day, or \$3,100 a month, whereas for the nearest competitor, a British ship, this item will be \$65 a day, or about \$2,015 a month. Ships of other nationalities have proportionally lower wage costs.

Ordinarily a cargo vessel does not employ a full crew 12 months in the year, but for possibly 2 months the ship will be in port with a reduced crew. On the other hand, except in extensive lay-up the officers usually are carried permanently on the ship. Therefore, for purposes of calculation, it is estimated that the annual pay roll for the type of vessel under consideration here will approximate eleven times the monthly pay roll, resulting in a total for the United States ship of \$34,100 and for a comparable British ship of \$22,165, a differ-

⁹ Tariff act of 1922, sec. 466, reaffirmed in the tariff act of 1930.

¹⁰ These averages are based upon the operating records of vessels of the Merchant Fleet Corporation.

ence of \$12,035. This difference is equal to 35 per cent of the total wages cost of the United States ship or 55 per cent of the wages cost of the British vessel.

Subsistence costs

Subsistence costs on United States ships are relatively larger than similar costs on ships of foreign nationality. On the typical American vessel under consideration the subsistence allowance will approximate \$0.60 per man per day, while on a British ship the subsistence cost will be about \$0.40 per man per day, making daily costs of \$21 and \$14 and monthly costs of \$630 and \$420, respectively. On the basis of an 11-month year this will result in an annual subsistence differential of \$2,310.

Assuming that the above wages and subsistence differentials are fairly representative for the type of vessel under consideration, there will be a total operating-cost differential of \$14,345 annually to be borne by the United States ship for these two items alone. This works out as an extra cost amounting to \$1.75 per dead-weight ton per year for the 8,000-ton ship.

RELATION OF COST DIFFERENTIALS TO NET EARNINGS

The figures given on page 24 show a construction-cost or capital-charge differential of \$3.33 per dead-weight ton for certain types of cargo vessels built in the United States.

A capital differential of \$3.33 plus the operating differential of \$1.75 shown above will theoretically amount to \$5.08 per dead-weight ton per year which an 8,000-ton cargo vessel under United States registry has as a handicap with its nearest competitor under foreign registry. This cost will be less if in calculating the capital charges an interest rate of 5 per cent (instead of the 6 per cent rate used) be employed, and will in any event annually be reduced by depreciation of the vessel and by smaller insurance charges up to a certain age of the ship.

THE AMERICAN COMMERCIAL FLEET

GROWTH OF THE MERCHANT MARINE

Measured in terms of commercial-vessel tonnage, the United States at the beginning of the World War was the third maritime nation, being surpassed by Great Britain and Germany. At the end of the war and upon completion of the war-construction program in 1922 the United States was second in world position as regards vessel tonnage of national registry. This was the result, first, of the elimination of Germany's pre-war merchant marine, part of which was acquired by the United States; and, secondly, of a net gain in the American fleet of 10,500,000 gross tons by construction, change of registry, requisition, and purchase. Between 1914 and 1922 the American coasting fleet increased from 6,719,000 gross tons to 7,613,000 and the registered foreign-trade fleet from 1,076,000 gross tons to 10,725,000.

In 1930 the United States commercial fleet aggregated 15,947,000 gross tons, this total including registered and enrolled steam and

motor vessels, sailing ships, canal boats, and barges, but excluding licensed tonnage.

As illustrating the growth of the United States merchant marine, the annual enrollment of vessels of all types for coasting service and registry records of the American foreign-trade fleet are presented in Table 4.

TABLE 4.—GROWTH OF THE AMERICAN COMMERCIAL FLEET

Year ending June 30—	Total com- mercial fleet ¹	Enrolled (coastal trade)			Registered (foreign trade)		
		Total coast- ing-trade fleet ¹	Power- driven ves- sels	Sailing ves- sel- and barges	Total fore- ign-trade fleet ¹	Power- driven vessels	Sailing ves- sels and barges
	<i>Gross tons</i>	<i>Gross tons</i>	<i>Gross tons</i>	<i>Gross tons</i>	<i>Gross tons</i>	<i>Gross tons</i>	<i>Gross tons</i>
1850.....	3,485,266	1,899,555	481,005	1,418,560	1,585,711	44,942	1,540,769
1855.....	5,150,867	2,615,731	655,240	1,960,491	2,535,136	115,045	2,420,091
1860.....	5,299,175	2,752,938	770,641	1,982,297	2,546,237	97,206	2,449,041
1865.....	5,056,676	3,454,093	969,131	2,484,962	1,802,543	98,008	1,504,575
1870.....	4,194,740	2,677,940	873,522	1,798,418	1,516,800	192,544	1,324,256
1875.....	4,792,217	3,238,390	871,806	2,366,584	1,553,827	191,689	1,362,138
1880.....	4,002,163	2,649,353	1,058,587	1,590,766	1,352,810	146,604	1,206,206
1885.....	4,184,572	2,896,573	1,289,995	1,606,578	1,287,999	186,406	1,101,593
1890.....	4,338,579	3,391,884	1,639,643	1,752,241	1,946,695	197,630	749,065
1895.....	4,543,291	3,705,104	1,936,204	1,768,900	838,187	252,045	586,142
1900.....	5,066,263	4,239,569	2,289,825	1,949,744	826,694	341,342	485,352
1905.....	6,346,315	5,391,802	3,100,263	2,291,539	954,513	601,180	353,333
1910.....	7,376,553	6,593,728	4,272,521	2,321,207	791,825	556,977	234,848
1911.....	7,513,491	6,640,820	4,410,608	2,230,215	872,671	585,730	286,941
1912.....	7,584,787	6,652,656	4,473,201	2,177,455	932,101	619,706	312,395
1913.....	7,754,116	6,726,340	4,573,156	2,153,144	1,027,776	671,148	356,628
1914.....	7,795,126	6,718,974	4,607,041	2,111,933	1,076,152	724,874	351,278
1915.....	8,256,268	6,384,725	4,495,051	1,859,674	1,871,543	1,349,846	521,697
1916.....	8,338,761	6,147,046	4,371,381	1,775,665	2,191,715	1,599,661	592,054
1917.....	8,742,697	6,296,288	4,476,928	1,819,369	2,446,399	1,857,734	588,665
1918.....	9,796,599	6,192,893	4,355,615	1,837,278	3,603,706	3,015,781	587,925
1919.....	12,778,537	6,108,811	4,319,144	1,789,667	6,669,726	5,994,205	675,521
1920.....	16,193,903	6,265,308	4,528,116	1,742,192	9,928,595	9,194,922	733,673
1921.....	18,153,976	7,072,286	5,172,999	1,899,287	11,061,690	10,466,339	615,351
1922.....	18,337,895	7,613,305	5,608,897	2,004,408	10,724,500	10,268,003	456,497
1923.....	18,160,438	9,087,375	7,083,863	2,003,512	9,073,063	8,631,665	441,398
1924.....	17,617,366	8,820,545	6,837,433	1,983,112	8,796,821	8,371,185	425,636
1925.....	17,281,553	9,126,581	7,112,001	2,014,580	8,154,972	7,755,852	399,120
1926.....	17,189,786	9,463,927	7,312,435	2,151,492	7,725,850	7,319,536	406,323
1927.....	16,764,942	9,447,893	7,431,817	2,016,066	7,317,059	6,966,180	350,879
1928.....	16,561,844	9,621,451	7,616,852	2,004,499	6,940,393	6,621,315	319,078
1929.....	16,355,712	9,443,292	7,459,847	1,983,445	6,912,420	6,592,123	320,297
1930.....	15,946,857	9,643,982	7,625,331	2,018,651	6,302,875	6,021,669	281,206
1931.....	15,786,945	10,204,591	8,069,680	2,134,911	5,582,354	5,347,388	234,966

¹ Includes commercial vessels and barges of 100 gross tons and upwards.

Source: U. S. Bureau of Navigation: Merchant Marine Statistics, 1930.

THE COASTAL FLEET

The coastal trade has been the principal factor in United States commercial shipping. The coastwise fleet came into being when the Nation was a thin strip of territory along the Atlantic seaboard and the sea offered the only means of communication. Following the settlement of the Oregon territory and the discovery of gold in California the coastal steam fleet was subsidized from the Atlantic coast to Panama and from Panama to California and north,¹¹ and furnished the only means of regular communication between the Atlantic and the Pacific prior to completion of a transcontinental railway. The coastal fleet has consistently kept pace with territorial expansion and commercial development.

¹¹ See discussion of coastal legislation on p. 74.

Viewed from many angles—the necessity for communication between component parts of the Nation, Government protection in the public interest, employment of private capital in shipping, employment of power-driven fleets, potential naval auxiliary—the coastal fleet's importance to the Nation is indisputable; its extension commercially and geographically has raised it to international significance.

POTENTIAL SEA POWER OF COASTAL FLEET

Coastal power-driven tonnage figures are not a true indication of potential seagoing tonnage. The 1930 total shown in Table 4 should be reduced by 2,532,596 gross tons credited to the northern lakes and by 123,689 gross tons of river tonnage, thus bringing the power-driven coastal tonnage down to 4,969,046 gross tons. A portion of this tonnage is unsuitable for the overseas trades.

Nevertheless on July 1, 1931, of forty-four 14-knot United States vessels, twenty-nine were in the coastal service; nineteen out of the thirty-one 15-knot vessels, ten out of thirty-two 16-knot vessels, five out of six 17-knot, and seven out of twenty-two 18-knot vessels. There were three 19-knot vessels, two of which were in the coastal trade; one 21-knot vessel and one 22-knot vessel, and both were in the coastal trade.¹²

The coastal tonnage includes some of the most modern fleets under national documentation.

THE FOREIGN-TRADE FLEET

Between July 1, 1914, and June 30, 1917—the period of the World War before the United States actively participated and began its great expenditures on merchant shipping—through change in registry laws and the revival of steel-ship building, the American power-driven fleet in the foreign trade increased from 725,000 gross tons to 1,858,000 gross tons. The high freight rates for trans-Atlantic cargoes were already beginning to attract steamers to Europe from the coasting trade and the foreign trade of the Gulf of Mexico and the Caribbean Sea.

Many of the cargo steamers in the coasting trade of the United States were readily adaptable to trans-Atlantic voyages. In fact, the American merchant fleet in 1914 included 430 ocean steel steamers, each over 1,000 gross tons and aggregating 1,600,000 tons, and in 1917 this fleet had increased to 660 such steamers, of 2,700,000 gross tons. To these were added 100 German steamers, of 638,000 gross tons, seized when the United States declared war.

As the war progressed the 1,900,000 gross tons of steel steamers building or under contract on July 1, 1917—half for American ship-owners, half for foreign owners—which had been requisitioned by the Shipping Board, approached completion and 980,000 gross tons were registered and in operation by July 1, 1918, and 22 steamers of 96,000 gross tons had been completed under original Government contracts.

¹² U. S. Bureau of Navigation: American Documented Seagoing Merchant Vessels of 500 Gross Tons and Over, July 1, 1931.

ORIGIN OF INCREASES AND DECREASES

The war-time expansion of the American merchant marine has already been indicated in Table 4; but the origin of increases and the cause of certain offsetting decreases covering the war period and ending with the completion of the Government construction program are of interest. The following figures, from Government Aid to Merchant Shipping,¹³ relate to the total commercial tonnage and not to the foreign-trade fleet alone:

Origin of increase:	Gross tons
Built in United States.....	12, 652, 000
Foreign-built registered.....	1, 154, 000
Enemy ships seized.....	492, 000
Bought from United States Government.....	85, 000
Total.....	<u>14, 383, 000</u>
Cause of decrease:	
Lost and abandoned.....	1, 749, 000
Sold to foreigners.....	976, 000
Sunk by enemy.....	383, 000
Sold to United States Government.....	360, 000
Exempt tonnage.....	328, 000
Total.....	<u>3, 796, 000</u>
Balance, increase as of 1922.....	10, 597, 000

The enemy ships seized amounted to 638,000 gross tons, but in the tabulation only 492,000 gross tons are included in the American merchant fleet, as part of the tonnage was allotted to the Army and Navy and part had been sold to foreigners. The decrease of 328,000 gross tons of exempt tonnage is due to the requirements of law by which, for example, canal boats in trade with Canada are required to carry customhouse documents, which are not required of the same boats when employed solely on the canals of New York State, and, too, certain types of vessels when wholly employed in harbors are exempt from documents which they must carry on longer trips. The item does not indicate an actual loss of these smaller craft, but indicates their restricted operations in 1922. The total balance accounted for is 54,000 more than the difference between the 1914 and 1922 gross tonnage as given in Table 4.

EMPLOYMENT OF THE FLEET

The commercial shipping of the United States falls naturally into two divisions—that engaged in the foreign trade in competition with the shipping of foreign nations and that engaged in the coasting trade, reserved under the coastal laws for American vessels, which in turn comprises the shipping of the Great Lakes, the trade along or between the Atlantic, Pacific, and Gulf seaboard and between these regions and noncontiguous territories, and the various river systems of the United States.

¹³ Jones, Grosvenor M.: Government Aid to Merchant Shipping, issued as Special Agents Series No. 119 by the Bureau of Foreign and Domestic Commerce, Department of Commerce, Washington, D. C.

Tonnage employed in the coasting trade of the United States seaboard and river systems was less up to the year which ended June 30, 1920, than it had been immediately before the war. Much of this tonnage was structurally adapted to transoceanic voyages, and, in fact, was so engaged during the war and during the period of high freight rates which followed the armistice. The power-driven coastal fleet did not begin to return to its normal employment until the depression in rates in 1920-21, but by 1922 was 1,000,000 tons above the 1914 figure. On June 30, 1930, the power-driven shipping documented for these trades showed an increase of more than 3,000,000 tons, or 70 per cent, over the pre-war tonnage. Decreases in sailing vessels brought the gain for the coasting fleet as a whole down to about 45 per cent.

United States shipping in the foreign trade reached its peak in 1921, when 11,081,690 gross tons found employment, an increase of 8,635,000 gross tons since the United States' entry into the war in 1917. Employment of United States ships in the foreign trade steadily declined during the following decade and on June 30, 1931, was 6,295,935 gross tons, a decrease of 4,785,755 tons from the 1921 peak but an increase of 5,219,783 tons over the shipping so engaged in 1914.

. OWNERSHIP OF THE FLEET

The vessel tonnage of American ownership now engaged in the United States foreign trade divides itself into two groups—that owned by the United States Government and that privately owned. Privately owned tonnage again divides itself into vessels under United States registry and vessels owned and operated by American interests under foreign registry. The fleets operated under private ownership also divide themselves into common carriers and industrial carriers—that is, carriers of products the property of their owners.

Government-owned fleet.—Up to June 30, 1931, the United States Government, through the United States Shipping Board, had acquired 2,546 vessels, tugs, barges, and hulls of an aggregate dead-weight tonnage of 14,671,520; 1,929 vessel units of 10,295,030 dead-weight tons had been sold; 89 vessel units of 464,167 dead-weight tons had been lost; 101 vessel units of 505,085 dead-weight tons had been transferred to other Government departments; 18 units of 65,409 dead-weight tons had been scrapped; and 409 vessels of 3,341,829 dead-weight tons were still owned by the Government.

In 1923 Government-owned tonnage engaged in the foreign trade amounted to 2,300,000 gross tons; on January 1, 1931, it was less than 1,000,000 gross tons; and on June 30, 1931, 914,741 gross tons.

Privately owned fleet.—Not until the second quarter of 1929 did the amount of privately owned tonnage in the foreign trade equal or exceed that owned by the Government, based upon the unit of steel ocean-going ships of at least 1,000 gross tons. Privately owned tonnage actively engaged in the foreign trade in 1923 was 600,000 gross tons; by January 1, 1931, it had increased to more than 2,500,000 gross tons; on June 30, 1931, it stood at 2,332,360 gross tons.

Considering only commercial vessels of 1,000 gross tons and over, 44 per cent of the total privately owned tonnage of United States

registry is owned by industrial or importing entities operating in specialized services such as the petroleum, steel, and fruit trades. Among the petroleum companies which own fleets 12 account for 1,816,276 gross tons; 3 other fleets which are primarily industrial aggregate 339,442 gross tons. The fleet of each of these 15 companies exceeds 50,000 gross tons, and their total represents two-thirds of the total United States industrial tonnage. On June 30, 1931, 1,297,795 gross tons, or 40 per cent of the seagoing industrial tonnage under United States documentation, was engaged in the foreign trade.

AMERICAN INTEREST IN SHIPS OF FOREIGN REGISTRY

American-owned ships.—One other aspect of the situation with respect to private American shipping interests deserves consideration. This relates to the American ownership and operation of vessels under foreign registry. As of June 30, 1931, there were 440 American-owned vessels of foreign registry with a total tonnage of 2,295,140 gross tons^{13a}—a tonnage practically equal to the total tonnage of United States registered vessels owned and operated in the foreign trade by private interests.

Foreign-owned ships.—Postwar American loans to Europe have included a number of loans to shipping and affiliated industries, some privately negotiated and some guaranteed by the governments concerned. Those guaranteed by foreign governments were in respect of subsidized shipping lines, the borrowers being authorized to use part of their subsidy moneys for repayment of the loans. A list of foreign shipping securities floated in the United States during the period 1922-1930 is presented in Table 5.

TABLE 5.—FOREIGN SHIPPING AND ASSOCIATED ISSUES PUBLICLY OFFERED OR TAKEN IN THE UNITED STATES, 1922-1930

Nationality and issuer	Date of issue	Par value of flotation in United States currency	Interest, per cent	Term, years	Yield to maturity, per cent	Remarks
Germany: Hamburg-American Line.	1925	\$6,500,000	6.50	3-15	6.50-6.62	Free of German taxes.
North German Lloyd.	1927	20,000,000	6	20	6.65	American shares, \$69 per share. Initial dividend \$3.41 per American share, Apr. 6, 1929; \$3.43 per share Apr. 10, 1930.
Do.....	1928	12,075,000				
"Hansa" Steamship Line.	1929	5,000,000	6	10	6.98	
France: French National Mail Steamship Lines (Société des Services Contractuels des Messageries Maritimes).	1924	10,000,000	7	25	7.80	Guaranteed by French Government.
Do.....	1927	5,500,000	6	25		Taken by United States market as share of \$9,500,000 loan placed in Canada, which in turn was part of a \$11,000,000 loan taken jointly in the Netherlands and Canada.
Cie. Générale Transatlantique.	1927	2,500,000	6.50	24		Share taken by United States market of \$4,500,000 loan placed in Canada.

^{13a} U. S. Shipping Board, Bureau of Research, Special Report 1940, July 17, 1931.

TABLE 5.—FOREIGN SHIPPING AND ASSOCIATED ISSUES PUBLICLY OFFERED OR TAKEN IN THE UNITED STATES, 1922-1930—Continued

Nationality and issuer	Date of issue	Par value of flotation in United States currency	Interest, per cent	Term, years	Yield to maturity, per cent	Remarks
France—Continued.						
French National Mail Steamship Lines (Société des Services Contractuels des Messageries Maritimes).	1927	\$1,500,000	6	25	-----	Taken by United States market as reissue of \$1,500,000 taken in the Netherlands market, which again was part of \$11,000,000 loan jointly taken in the Netherlands and Canada.
Cie. Générale Transatlantique.	1928	3,500,000	-----	-----	-----	
Italy:						
Italian Credit Consortium in behalf of Italian shipping companies.	1927	12,000,000	7	10-20	7.40-7.50	Part of \$20,000,000 loan, the remainder being taken by Morgan, Grenfell & Co., the Hambros Bank, Rothschild & Sons, and Baring Bros., London.
Lloyd Sabaudo.	1926	2,400,000	7	4-15	7-7.45	
Great Britain:						
Cunard Steamship Co.	1925	7,500,000	5	2	5.00	
Do.	1927	2,500,000	4.50	2	4.50	
Denmark:						
United Steamship Co. (Det Forenede).	1922	5,000,000	6	15	6.50	
Burmeister & Wain	1925	2,000,000	6	15	6.50	
Czechoslovakia:						
Brunner Turbine & Equipment Co.	1925	4,000,000	7.50	30	7.90	
Netherlands:						
Holland America Line.	1922	7,360,000	6	25	6.30-6.90	
Canada:						
Canada Steamship Lines (Ltd.).	1926	9,000,000	6	15	6.30	\$3,800,000 for refunding
Do.	1922	4,500,000	7	30	7.38	Offered also in Canada through Bank of Montreal and Royal Bank of Canada, Montreal, and Canadian Bank of Commerce, Dominion Securities Corp., and A. E. Ames & Co. (Ltd.), Toronto. Entire issue unconditionally guaranteed as to principal and interest by the Dominion Government.
Canadian National (West Indies) Steamships (Ltd.).	1930	9,400,000	5	25	5.00	

Source: Handbook on American Underwriting of Foreign Securities, by Ralph A. Young (Trade Promotion Series No. 104); American Underwriting of Foreign Securities in 1930 (Trade Information Bulletin No. 746). Both publications issued by the Bureau of Foreign and Domestic Commerce, Washington.

It is evident, therefore, that on the basis of capital investment in ocean shipping the position of the United States is stronger than the tonnage of vessels of American registry alone would indicate. (See also p. 398.)

THE WAR AND THE MERCHANT MARINE

THE PRE-WAR SHIPPING POSITION

The economic changes wrought in international trade relationships by the outbreak of war in Europe in 1914 had far-reaching and immediate consequences. In the United States one of the first results was the enactment of legislation¹⁴ which ended the virtual monopoly

¹⁴ Beginning with the period of the World War, the next 15 years produced much legislation having as its object the establishing and maintaining of United States shipping in the overseas trades through public aid. For a political history of shipping legislation during this time see Alexander R. Smith's report to the United States Shipping Board on attempts made to obtain aid for American ships.

enjoyed by the United States shipbuilding industry in constructing all tonnage that was to operate under United States registry. The United States, alone among maritime nations, had previously refused registry to home-owned foreign-built ships which desired to engage in its foreign trade, except under conditions that made such operation practically impossible. The coastal navigation had, of course, since 1817 been restricted to vessels built in the United States.

So long as wooden ships were used the United States shipbuilding industry remained in a dominant world position; the excellent workmanship of the softwood construction matched all foreign construction and was usually considered lower in price. With the adoption of the metal ship, however, the United States shipbuilding industry found itself under the handicap of lack of materials, while the British shipbuilding industry, with its iron and steel supplies, won to first place and maintained undisputed leadership until the German shipbuilding industry brought out record-breaking ships in the last decade of the nineteenth century. By this time the United States steel industry had begun its large expansion and the question of materials was solved—but the demand for ships had been reduced to a minimum.

During the entire period of the development of European shipbuilding technique, however, United States shipowners were practically prohibited from taking advantage of the European market for steel and iron steamer tonnage for service in the oversea trades. In the meantime, Great Britain opened its register to ships wherever built, and other nations followed this policy in order to maintain their shipping until their own shipbuilding industries were developed.

AMERICAN CAPITAL IN FOREIGN-BUILT TONNAGE

The result of this condition was that United States capital was invested in foreign-built tonnage to such an extent that as early as 1901, following the purchase of the Leyland Line by J. P. Morgan, 136 ships of 672,456 gross tons were owned or controlled by United States capital and operated under British, Belgian, and Norwegian registry¹⁵—a fact unique in commercial maritime history, as this amount of tonnage nearly equalled the entire steel and iron tonnage of Norway (768,594 tons) and of Spain (733,021 tons) and exceeded the commercial fleet of Italy (657,981 tons) and of Japan (524,125 tons).

United States capital thus sought the most advantageous placement in respect of pecuniary returns and thereby contributed to the maritime strength of the countries in which this American-owned tonnage was registered. Pecuniary control of tonnage, however, did not carry with it national protection; in time of war the tonnage so registered out of the United States might or might not become subject to capture and would certainly become subject to war-insurance premiums. Even had foreign-built ships been eligible to United States registry, it is questionable whether their owners would have availed themselves of the opportunity in times of peace, due to the high cost of maintaining officers and crews on American ships as compared with foreign ships.

¹⁵ Annual Report, U. S. Commissioner of Navigation, 1901, p. 34.

ADMITTANCE OF FOREIGN SHIPS TO UNITED STATES REGISTRY

LAW OF AUGUST 18, 1914

The Panama Canal act of August 24, 1912¹⁶—the first step in the direction of a free-ship policy—had provided for the admittance to United States registry of foreign-built ships not more than 5 years old for service in the foreign trade but not in the coastwise trades. No ships had in fact been admitted under the provisions of the act; but the law still remained operative, and thus it was that the position of the United States as a neutral country at the outbreak of the war in Europe in 1914 became a large asset to ship-owners whose capital was invested in vessels under registry of the nations at war.

Within three weeks following the outbreak of hostilities the ship registry act of August 18, 1914, was enacted, repealing the 5-year age limit on ships eligible to registry under the Panama Canal act of 1912, and providing that foreign-built vessels owned by United States citizens should be eligible to American registry for foreign trade and for trade between the United States and the Philippines, Guam, and Tutuila. The act further empowered the President to suspend, by Executive order, at his discretion, laws which prescribed that watch officers on vessels of United States registry must be United States citizens. The President was further authorized to suspend laws relating to survey, inspection, and measurement. Accordingly, successive Executive orders were issued which permitted foreign citizens to command and to serve in various official capacities, and the last of these orders, issued in 1920, expired in 1923.

The general naturalization law of the United States requires the lapse of seven years after the notice of intention to become an American citizen has been filed before citizenship is granted; but a law enacted early in the history of the Republic, when British impressment of seamen on American ships was practiced, provides that a seaman from the time of declaring his intention to become an American citizen shall be entitled to protection as such, and that three years afterwards he shall be eligible to be an officer of an American ship.

The ship registry act of August 18, 1914, was followed by the law of March 4, 1915, empowering American consuls to issue provisional registers to ships bought abroad by American citizens, thus confirming a practice involved in the ship registry act of 1914 and carrying out a recommendation made by President Arthur more than 30 years previously.

RESULTS OF SHIP-REGISTRY ENACTMENT

The results of the registry act of August 18, 1914, were immediate. Up to June 30, 1915, the American merchant fleet was increased from this source by 143 vessels of 523,000 gross tons, of which 109 vessels of 479,000 gross tons were ocean steamers.

¹⁶ From this point on the discussion of the war program and immediate post-war developments is largely a restatement, with modifications, of the material contained in the 1923 edition of Government Aid to Merchant Shipping (Special Agents Series No. 119), pp. 427 to 455, followed by an original account of developments since 1923.

During the fiscal year 1916 additions to the American fleet from this source were nearly 70,000 gross tons and in 1917, 67,000 gross tons; so that by the time the United States entered the war the ship registry act had added to the American merchant marine 650,000 gross tons, most of which tonnage was of types especially serviceable for the conduct of the war.

Soon after the 1914 law was passed the British Government declined to permit transfers of British ships to foreign flags except by its special consent in each particular case. This course was adopted in turn by the other belligerents and by neutral powers. In the meantime the sales of American ships to foreigners, which in 1915 had been only 18,000 gross tons, increased to 102,000 gross tons in 1916 and to 197,000 gross tons in 1917, when in February an Executive order under the shipping act of September 7, 1916, prohibited both the transfer of American ships to aliens and their charter by aliens without the consent of the Shipping Board. While the sales of American ships to foreigners during these three years reduced the American merchant fleet by 318,000 gross tons, the prices received were increasing, and as a rule the moneys were invested in other ships or in the building of new ships.

LAW OF OCTOBER 6, 1917

War legislation concerning ship registry had thus far carefully reserved the coasting trade of the United States to vessels built in the United States and under the American flag. A law approved October 6, 1917, permitted vessels of foreign registry and foreign-built ships admitted to American registry under the ship registry act to engage in the coasting trade (except trade with Alaska) during the war and for a period of 120 days thereafter under permits issued by the United States Shipping Board. The act was passed at a time when the necessity of providing food and munitions for the Allies was urgent, and its general purpose was to facilitate the cooperation of American and Canadian ships to this end.

Before the statutory period had elapsed Congress (by sec. 22 of the merchant marine act of 1920, generally known as the Jones law) provided that all foreign-built vessels admitted to registry and owned by citizens of the United States on February 1, 1920, and all foreign-built vessels owned by the United States Government on June 5, 1920, when sold to American citizens may engage in the coasting trade so long as they continued in such ownership. The foreign-built shipping thus rendered eligible to engage in the domestic trade amounted to nearly 1,000,000 gross tons. This section 22 repealed that portion of the October 6, 1917, law which related to coastal trade.

REQUIREMENTS OF SEAMEN'S ACT OF 1915

The seamen's act of March 4, 1915, had been before Congress in one form or another for 20 years. It was prompted in part by the recollection of earlier abuses and cruelty on sailing ships and the traffic in seamen. With the disappearance of the sailing ship, however, these abuses were disappearing also.

Originally the bill was to apply only to American ships; but its advocates were convinced that the result of its passage in that form

would further handicap American ships in competition with others, and it had been recast so that its main provisions applied to foreign as well as to American ships. This necessitated notice of the abrogation of treaties binding nations quite generally to assist, in their own ports, in the arrest of deserters from foreign ships. The abrogation of treaties became effective on July 1, 1916, when the war was entering its third year, when the perils of the sea were increasing, and when the attractions of prosperous America and high wages on American ships naturally led to desertions from foreign ships. Seamen of the Allied nations as a rule stood by their ships, but through desertions from neutral ships and admission of alien officers under the ship registry bill the proportion of Americans in the crews of American ships fell from 48 per cent before the war to 43 per cent in 1916 and 1917. During 1918 American ships engaged in transporting troops and most of the American trans-Atlantic ships entering the war zone were manned by Naval Reserves and enlisted men of the Navy.

The provision of the seamen's act that increasing percentages of the crew in each department of the ship should be able to understand the language of the officers had little effect in the Atlantic service, as the officers and crews of practically all European ships are of the nation and speak the language of the ship's flag. It offered embarrassment to some American ships on account of the large foreign element in their crews. Its particular effect, however, was to give Japanese ships in American trade an advantage in that their officers and crews are all Japanese subjects, while the practice of ships of other nations in trade with Asia is to employ Asiatics in the steward's department and the fireroom, while the officers are European.

The provision of the bill requiring an increasing percentage of the deck department of ships to be men who had served three years in that capacity at sea operated particularly to the disadvantage of American ships during war conditions. The requirement under no conditions would have been severe on foreign ships, and it was rendered easier by the submarine destruction of ocean tonnage of practically all nations, releasing seamen for employment. American tonnage, on the contrary, was expanding steadily under the Government's appropriations (see p. 38), and it became increasingly difficult to find men, especially Americans, with three years of sea experience. The able-seamen requirement was in effect suspended during the war, and American ships were manned, as stated, with enlisted men in the Navy or in the Naval Reserve and later by young Americans recruited by the Shipping Board.

PROPOSED REGULATION OF OCEAN COMMERCE

SHIPPING ACT OF 1916

Discussions in Congress on foreign shipping rings and conferences which began in April, 1911, resulted in 1916 in passage of the shipping act of September 7. The House Committee on the Merchant Marine and Fisheries was directed to study the methods of American and foreign steamship lines, their connections with one another and with railroads, the granting of rebates and subsidies, and the

effect of pools, combinations, and working agreements upon the commerce and ocean freight rates of the United States. The purpose of the investigation was to frame legislation for the regulation of foreign commerce by sea in a manner analogous to the regulation of United States railroads by the Interstate Commerce Commission. In fact, when the committee made in 1914 the report on which the 1916 legislation was based its fundamental recommendation was that navigation companies, firms, or lines engaged in the foreign trade of the United States be brought under the supervision of the Interstate Commerce Commission as regards the regulation of rates, the approval of contracts entered into with other water carriers, with shippers, or with American railroads and other transportation agencies, and such other conditions of water transportation as affect the interests of shippers.

"The committee had under consideration," the report stated, "the recommendation of a separate commission for this purpose; but it believed that in view of the close relations existing between rail and water transportation it would be best to intrust the supervisory control to the Interstate Commerce Commission." That commission, however, declined to undertake the work proposed, so an independent commission or board was established.

INCEPTION OF THE SHIPPING BOARD

As originally prepared, the principal provisions of the act of September 7, 1916, prohibited deferred rebates and other practices regarded as discriminatory; required common carriers by water to file with the board copies of their agreements fixing freights or fares, and required the board's approval before such agreements became valid; prohibited preferential fares and freights; authorized the board to investigate complaints against steamship companies and also the laws, regulations, and practices of any foreign government which so operate that vessels of the United States are not accorded equal privileges in foreign trade with the vessels of such foreign countries. It also authorized the board to investigate the cost of building ships in the United States and abroad, methods of classification of ships, the subject of marine insurance, ship mortgages, and the navigation laws, with a view to legislation to develop the American merchant marine.

When the time came for Congress to act upon the recommendations of the committee, the war had completely changed the aspect of the world. The people of the United States were much concerned with preparedness for war and cared little for the regulation of ocean commerce, which was becoming more and more subject to the régime of blockade and to the perils of war. The strength which Great Britain and France were deriving from their long-established lines of subsidized communications with their oversea dominions was manifest, and the value of merchant shipping as an auxiliary to both the naval and the military forces of the allied nations was not overlooked by the United States Congress. The bill to establish the Shipping Board failed to pass the Sixty-third Congress, and when finally approved on September 7, 1916, the early lessons of the war were embodied in the declarations of the purposes which by its title

the bill was designed to serve, and its original purpose was wholly subordinated.

GOVERNMENT OWNERSHIP AND OPERATION

The outlay of the United States Government upon ship construction and operation from the inception of appropriations to be expended through the United States Shipping Board up to June 30, 1931, was \$3,694,855,792; \$79,648,869 had been returned to the United States Treasury, leaving a remainder of \$3,615,206,923 as the net cost of the program of the United States Government for the 16-year period, less the value of Government property, various special funds, bills receivable, collectible notes, and other assets. This cost does not include expenditures by other Government departments, such as certain sums paid under postal contracts prior to the passage of the merchant marine act of 1928.

BEGINNING OF GOVERNMENT OWNERSHIP

The vital feature of the shipping act of September 7, 1916, was the authority it conferred upon the Shipping Board to have constructed in American yards (preferably) or elsewhere and to purchase, lease, or charter merchant vessels suitable for use as naval auxiliaries or Army transports or for other naval and military purposes and to make necessary alterations or repairs.

On section 5 of the law was built up the system of Government merchant-ship building, owning, and operating. This section was based not on the commerce clause of the Constitution but on the authority bestowed on Congress to provide for the national defense. The operations of the board were restricted to merchant vessels suitable for military or naval use. This restriction, however, was one of principle rather than of substance, for the war was demonstrating that virtually all merchant ships were not only suitable but, in the case of some nations, indispensable for the prosecution of the war. In fact, not long after this date France requisitioned its entire merchant fleet.

OPERATING CORPORATION AUTHORIZED

The act of 1916, however, further sought to avoid, at least in form, the radical change involved in Government ownership. Section 11 authorized the Shipping Board to organize, under the laws of the District of Columbia, a corporation for the purchase, construction, lease, charter, maintenance, and operation of merchant vessels, with capital stock of not to exceed \$50,000,000, of which the Shipping Board, in behalf of the Government of the United States, was to own at least a majority of the shares.¹⁷ The sale of \$50,000,000 worth of Panama Canal bonds was authorized to provide the funds for the purpose, and the net proceeds of sales, charters, and leases of ships by the Shipping Board were to be added to these funds and permanently appropriated to the board to carry out the policy of Government building and operation of merchant ships available for naval and military purposes.

¹⁷ The United States Shipping Board Emergency Fleet Corporation, capitalised at \$50,000,000, was incorporated in accordance with this provision. All the stock, except qualifying shares of trustees, is owned by the Shipping Board.

The change in American policy thus foreshadowed came to little, however, until the United States entered the war on April 6, 1917. The Shipping Board was not actually functioning until in 1917. The appropriation of \$50,000,000 for the building of ships at a time when American shipyards had building contracts for a merchant tonnage far beyond their capacity could bring but scant results. What was needed in the United States was more shipbuilding capacity, and this was being provided by the investment of private capital in the extension of existing yards and the establishment of new ones. The part taken by the Shipping Board in war-time ship construction will be discussed later. (See p. 44.)

BROAD POWERS UNDER MERCHANT MARINE ACT OF 1920

The provisions of the merchant marine act of 1920 reflect the conditions and conflicting interests of the time of its consideration by Congress from its introduction in November, 1919, to its passage in June, 1920. The country had become habituated to the Government ownership and operation of means of communication by sea and land and through the air, and the political sentiment in favor of that theory was strengthened for the time being by high ocean freight rates and the profits of shipping.

The merchant marine act of 1920 gave to the Shipping Board one of the most comprehensive grants of power ever bestowed in times of peace upon an administrative agency of the Government of the United States. Besides broad functions relating to the acquisition and operation of ships by the Government, general regulation of all commercial shipping came within its purview.

The board also was authorized to exercise some supervision over the regulation of shipping by other branches of the Government and particularly to make regulations, not in conflict with law, affecting shipping in foreign trade in order to meet conditions unfavorable to American shipping arising from foreign laws or regulations or the practices of owners, agents, or masters of foreign ships.

The act repealed the authority bestowed upon the President during the war to requisition shipyards and ships, to prescribe charter rates and freight rates, to direct priority in the use of terminal facilities, to suspend the 8-hour law on Government contracts, and other less comprehensive grants of power. In most cases these grants were terminable at fixed dates after the declaration of peace, but as the United States and Germany were not at peace at the time, although hostilities long had ceased, the revocation of war powers was specifically provided in the act of 1920.

GOVERNMENT OPERATION OF SHIPS

The merchant marine act of 1920 gave ample powers to the Shipping Board for the continued operation of the fleet by the Government. It directed the board to determine as promptly as possible what steamship lines were desirable for the promotion, development, expansion, and maintenance of the foreign and coasting trade of the United States and an adequate postal service, and the types of ships and the sailing intervals needed for regular, adequate, certain, and

permanent service. This being done, the board was authorized to sell or charter its ships to private persons who would undertake, on the board's conditions, to maintain such lines. If, however, no American citizen would enter into the undertaking, then the board should itself operate such lines until the business had so developed that the ships could be sold on satisfactory terms or until it had appeared (within a reasonable time) that the lines could not be made self-sustaining. Section 7 of the act also required the Shipping Board to maintain its steamship lines then in operation "until, in the opinion of the board, the maintenance thereof is unbusinesslike and against the public interest."

Broadly the problem was to find employment for a greatly increased fleet under United States registry. Since there were few, if any, pre-war foreign routes served by United States vessels which had been depleted as to tonnage during the war, there were no previously established routes as possible markets for the tonnage. Consequently the establishment of new routes became the first problem to be solved.

DESIGNATED ROUTES

The Shipping Board's conception of the steamship lines which ought to be maintained to comply with the requirements of the merchant marine act, 1920, was set forth in general terms in a circular letter of April 28, 1923, inviting American shipowners to offer bids for the purchase of the Government's passenger and cargo steamers. The types of steamers, frequency of sailings, specific terminals, and other particulars were to be competitive elements entering into the estimation of the comparative worth of the bids to the Government. The call for bids covered 18 general routes to be maintained from ports of the United States to ports elsewhere in the world as follows:

- | | |
|---------------------------------|----------------------------------------------------------------------------------------|
| 1. North Atlantic..... | United Kingdom (Great Britain and Ireland). |
| 2. Gulf and South Atlantic..... | Do. |
| 3. North Atlantic..... | Continental Europe north of Bordeaux. |
| 4. Gulf and South Atlantic..... | Do. |
| 5. North Atlantic..... | Continental Europe south of Bordeaux, including all Mediterranean and Black Sea ports. |
| 6. Gulf and South Atlantic..... | Do. |
| 7. Atlantic coast and Gulf..... | East coast of South America. |
| 8. ....do..... | Orient and Philippines. |
| 9. ....do..... | India and Netherland East Indies. |
| 10. ....do..... | Australia. |
| 11. ....do..... | South and East Africa. |
| 12. ....do..... | West Africa. |
| 13. Pacific coast..... | East coast of South America. |
| 14. ....do..... | West coast of South America. |
| 15. North Pacific..... | Orient and Philippines. |
| 16. South Pacific..... | Do. |
| 17. Pacific coast..... | Europe. |
| 18. ....do..... | Australia. |

CONTROL OF TERMINAL FACILITIES

The law of 1920 not alone contemplated the continued operation of the Government fleet by the Shipping Board; it also transferred to the board the control of the terminal facilities built or acquired

by the Government for military and naval purposes during the war, including the Hoboken piers of the two German steamship lines. Later, by act of January 1, 1921, the board was directed to take possession of and control, maintain, and develop all docks, piers, warehouses, terminal facilities, riparian rights, etc., acquired by the Government under war legislation, the transfer of naval and military terminals to take place at the discretion of the President. In the Shipping Board was also vested the power to investigate the whole range of subjects involved in terminal facilities, including connections between steamships and railroads, harbor improvements, and location of docks and piers. These studies were to be pursued in cooperation with the War Department, Interstate Commerce Commission, and local authorities which had hitherto been the medium through which the Federal and local Governments came in contact with the general problems of transportation.

LIQUIDATION OF GOVERNMENT FLEET

When the merchant marine bill of 1920 was first being shaped in July, 1919, the Shipping Board fleet comprised 3,827,000 gross tons; in July, 1920, shortly after the final passage and approval of the act, it comprised 6,903,000 gross tons; and in July, 1921, it reached its maximum of 7,993,000 gross tons, or double the Government tonnage at the time the subject of the disposal of the Government's fleet first began to command the serious consideration of Congress. The great expenditures made by the United States on shipbuilding and the size of the Shipping Board fleet in comparison with the United States fleet of ocean steamers before the war made the question of the disposal of the Government ships more difficult here than elsewhere.

In fixing prices for its ships the Shipping Board was required to take into consideration the prevailing domestic and foreign market price, the available supply and demand, existing freight rates, and the likelihood of their maintenance, the cost of constructing vessels of similar types under current conditions as well as the cost of the construction or purchase price of the vessels to be sold (about \$3,000,000,000), and any other factors that would influence a prudent, solvent business man in the sale of similar property which he is not forced to sell. Completion of payment of purchase price and interest could not be deferred beyond 15 years. The sale of ships to foreigners was restricted to vessels which the board on investigation should deem "unnecessary to the promotion and maintenance of an efficient merchant marine," and which after diligent effort the board had been unable to sell to an American. In sales to foreigners the period of deferred payments was reduced to 10 years and an interest rate of 5½ per cent was prescribed.

The sale of any considerable portion of the Government fleet on cash terms was recognized by all as impossible, and the interest of the Government in the statutory prescriptions concerning mortgages on ships thus became of great consequence. The difficulties surrounding legislation on this subject, in view of the mobile nature of shipping and the comparative ease with which it can depart out of jurisdiction, are familiar. After much discussion a chapter of eight printed pages on mortgages was embodied in the merchant marine act, 1920.

The act also authorized the Shipping Board to sell its property in land, buildings, etc., as well as its ships. The net proceeds of all sales were to be applied, first, to working capital needed for operating the fleet; second, to a construction-loan fund (see p. 70); and, third, to an insurance fund (see below) to cover the Government's marine plant afloat and ashore. Any surplus remaining after these reservations had been provided for was to be turned into the United States Treasury. After July 1, 1921, the act retained the construction-loan and insurance funds but required the Shipping Board to apply to Congress for an appropriation for its working capital.

By June 30, 1931, 1,983 vessels and hulls had been disposed of for a total sale price of some \$281,000,000. The remaining fleet at about this time had an inventory value of some \$67,250,000.

MARINE INSURANCE FUND

Marine insurance on both hulls and cargoes is an important and inevitable factor in shipping and foreign trade. Before the war the marine risks on American ships and cargoes were placed to a very large extent in British and other foreign marine-insurance companies which had facilities for the distribution of such risks among many insurers. The United States Supreme Court has held that the regulation of insurance is not a regulation of commerce under the commerce clause of the Constitution, and Congress therefore is debarred from legislating on the subject. War-risk insurance was based on the authority the Constitution gives to Congress to provide for the national defense.

The antitrust laws of the United States and laws enacted by the various States governing the scope and action of insurance companies, however, made difficult the cooperation of American marine-insurance companies after the fashion common among foreign companies. The merchant marine act, 1920, therefore declared that the antitrust laws should not be construed as declaring illegal associations formed for the purpose of transacting marine insurance and reinsurance in the United States and in foreign countries and for reinsuring or otherwise apportioning among their membership the risks undertaken by such associations or any of their component members.

MODEL LAW OF DISTRICT OF COLUMBIA

While Congress may not regulate insurance, a marine insurance law for the District of Columbia was passed which was designed as a model for the legislatures of the several States. This action followed investigations under the shipping act of 1916 (sec. 12), which authorized the Shipping Board to examine into the subject of marine insurance, the number of companies in the United States (domestic and foreign) engaging in marine insurance, the extent of the insurance on hulls and cargoes placed or written in the United States, and the extent of reinsurance of American maritime risks in foreign companies and to ascertain what steps were necessary to develop an ample marine-insurance system as an aid in the development of United States commercial shipping. Under this authority a Shipping Board committee investigated marine insurance and recommended among other things hull insurance at a low cost.

It was proposed to organize a nonprofit corporation in the District of Columbia through Federal legislation, which corporation would offer hull insurance on ships of American registry at actual cost. The purchaser of a Shipping Board vessel would be required to insure the Government's equity in the nonprofit corporation but would be free to insure his own interest where he pleased. The Shipping Board would insure all Government-owned vessels in this new company in order to give it the stability which comes from a wide spread of business. The company would be given a guaranty fund by the Government amounting to not less than \$10,000,000.

RELATIONS WITH AMERICAN BUREAU OF SHIPPING

The rates of insurance of hulls and cargoes depend in large measure on the class awarded to vessels by the ship survey and classification societies, of which up to 1920 the British Lloyd's Register and the French Bureau Veritas were the most widely known. These classification societies naturally maintain close relations with their respective Governments. The growth of American shipping during and subsequent to the war brought into great prominence and activity the corresponding American classification society, the American Bureau of Shipping, and the merchant marine act, 1920, provided for Government representation upon its executive committee and directed Government departments to recognize it as their agency.

FUNCTIONS ENLARGED BY LAW OF 1928

Section 501 of the merchant marine act of 1928 considerably enlarged the scope of the Shipping Board's insurance functions. While theretofore the board's insurance reserve had been devoted to ships of its own fleet, it now, by virtue of the new act, could insure the legal or equitable interest of the United States in any vessel constructed or in process of construction and in any plants or property in the possession or under the authority of the board. The policy established had been to confine the proportion insured in the board's fund on ships sold for unrestricted service to the amount of the mortgage and on ships sold for restricted services to the amount of the Government's equitable interest therein, with a graduated scale, reducing the amount in the fund each year so as to encourage the use of the private American insurance market for the balance of the required insurance.¹⁸

Under the provisions of section 501 the Shipping Board created an insurance fund, from transferred liquidation receipts, amounting to \$3,500,000. Premiums totaling \$700,000 were collected before the end of the fiscal year 1929. Charges against this fund during the year for claims and losses paid and for administration expenses totaled \$428,000, leaving a balance of \$3,772,000 in this fund as of June 30, 1929.

As of January 1, 1930, the marine-insurance reserve, amounting at that time to \$5,245,196, used to cover vessels owned by and operated for account of the Shipping Board, was combined with the insurance fund created under section 501 of the merchant marine act of 1928, creating a general insurance fund used for covering the Government's

¹⁸ United States Shipping Board: Fourteenth Annual Report, p. 6.

equity in vessels sold as well as those still owned and operated for account of the board, which fund on June 30, 1931, had an unexpended balance of approximately \$8,840,000.

DEVELOPMENT OF AMERICAN SHIPBUILDING

POSITION BEFORE 1917

The world outlook was somewhat overcast when the American fiscal year opened July 1, 1914, with a discouraging prospect for American shipbuilding. On that date the shipyards of the American seaboard were building or had under contract only 104,000 tons of steel vessels and the Great Lakes yards only 39,000 tons. The discouraging outlook was confirmed when the year ended on June 30, 1915, as the steel ships completed and documented aggregated only 131,000 gross tons and the entire merchant output, steel and wood, was only 225,000 gross tons—the lowest in 17 years.

From this time on American shipbuilding advanced at an accelerated pace. This growth appears at a glance in the following statement of the steel merchant tonnage under construction or contract at the beginning of the fiscal years 1914 to 1917:

TABLE 6.—MERCHANT SHIPPING UNDER CONSTRUCTION OR CONTRACT IN AMERICAN SHIPYARDS JULY 1, 1914-1917

July 1—	Seaboard	Great Lakes	Total merchant construction
1914.....	<i>Gross tons</i> 104,000	<i>Gross tons</i> 39,000	<i>Gross tons</i> 143,000
1915.....	294,000	16,000	310,000
1916.....	997,000	228,000	1,225,000
1917.....	1,608,000	293,000	1,896,000

PROGRESS DUE TO PRIVATE CAPITAL

In the summer of 1915 American shipbuilders were inviting and allied and neutral shipowners were proposing the building in American yards of ships for foreign flags, and such contracts were being entered into in the latter part of that fiscal year, especially by Norwegian shipowners whose vessels in ordinary times had been built in England. During the late summer and early autumn of 1916 the Cunard Steamship Co., the French steamship companies, and other foreign companies made extensive contracts with American shipbuilders, whose yards were already working to capacity on the orders of American shipowners.

Up to April, 1917, the rapid progress of American shipbuilding was largely the result of the initiative of private shipowners, American and foreign. The great expenditures which the United States Government was to make on shipbuilding had not yet entered into the situation.

GOVERNMENT WAR AND POSTWAR CONSTRUCTION

APPROPRIATIONS FOR CONSTRUCTION AND PURCHASE OF SHIPS

War losses of merchant shipping during April, 1917, reached a total of 866,600 gross tons, and the shipbuilding task intrusted to

the United States upon its entry into the conflict was as vital and difficult as any performed by any nation during the war. By the urgent deficiency act of June 15, 1917, Congress authorized the following expenditures by the Shipping Board:

1. For the construction of ships on order of the President during the period of the war to meet the necessities of the Government and giving priority to such orders over all other shipbuilding contracts, \$500,000,000;
2. For purchasing, requisitioning, or otherwise acquiring plants, materials, charters, ships constructed or in course of construction, and expediting the construction of such ships, \$250,000,000.

These amounts were increased by the urgent deficiency act of October 6, 1917, to \$1,234,000,000 and \$515,000,000, respectively, and an additional \$150,000,000 was provided for the purchase of other ships and \$35,000,000 for the purchase, establishment, or enlargement of shipbuilding plants.

By the act of July 1, 1918, the general authorization for construction of ships was increased to \$2,884,000,000, the appropriation for shipbuilding plants was increased to \$87,000,000, an item of \$60,000,000 to operate ships other than those of the Army and Navy was voted, together with \$20,000,000 to acquire transportation facilities for shipyard employees, \$55,000,000 for construction of ships abroad, and \$6,250,000 for recruiting and training officers and men for American merchant vessels.

These figures in themselves convey only partially the magnitude of the operations contemplated. It has been authoritatively stated:¹⁹ "The total value of all ocean-going ships in the world before the war was not more than some £300,000,000" (\$1,450,000,000). This statement covered the 8,000 steamers by which the sea communications of the world were maintained. Between June 15, 1917, and July 1, 1918, expenditures authorized by Congress for construction of commercial ships reached \$2,884,000,000, or twice the value of the total seagoing commercial fleet of the world prior to the war.

REQUISITIONING OF SHIPS

When the appropriations for the building of merchant ships by the Government became available on July 1, 1917, American shipyards were building or had under contract 1,896,000 gross tons of steel merchant ships, virtually all ocean steamers. The work in hand was thus greater than the full capacity of the yards for an entire year, and there was no opportunity to build merchant ships for the Government until new shipbuilding plants had been erected or established plants had been expanded. The Shipping Board accordingly, under Executive order, requisitioned all the steel tonnage thus building and the contracts for construction.

On August 3, 1917, the Shipping Board requisitioned 431 steamers of 3,074,000 dead-weight tons then under construction; 185 steamers of 1,534,000 dead-weight tons were for United States owners, 163 steamers of 989,000 dead-weight tons were for British registry for

¹⁹ Salter, J. A., chairman of the Allied Maritime Transport Executive. "Allied Shipping Control," Economic and Social History of the World War, British series, Carnegie Endowment for International Peace, p. 7.

the Cunard Co., 34 vessels of 234,000 dead-weight tons were for French owners, 38 vessels of 249,000 dead-weight tons were for Norwegian owners, and 11 ships of about 68,000 dead-weight tons were for Italian, Danish, Russian, and Japanese owners. Up to the time of the armistice 282 of these requisitioned steel steamers of 1,829,000 dead-weight tons had been completed and delivered to the Shipping Board, and under its own contracts the board had completed 113 steel steamers of 644,000 dead-weight tons.

COMPLETION OF GOVERNMENT PROGRAM

For the reasons indicated, the Government program of shipbuilding up to the Armistice of November 11, 1918, had not made full headway except as ships partially built for other owners had been completed and as shipbuilding contracts for such construction had been executed. The Government appropriations for merchant shipbuilding had been greater than the value of the world's entire merchant tonnage in 1914, and the Shipping Board's construction program contemplated the building (including the requisitioned ships) of 2,160 steamers of some 10,000,000 gross tons (equivalent to half the British tonnage of that type in 1914) and also a fleet of 1,600,000 gross tons of wooden steamers, tugs, etc.

The Government's shipbuilding program of 1917 was cut down about 25 per cent following the armistice, and when the merchant marine act of 1920 was under discussion almost 40 per cent of the remaining program was uncompleted. The provisions of the 1920 act for future construction, however, were quite explicit. The Shipping Board was granted full power and authority to complete or conclude any construction work begun under war legislation, "if, in its opinion, the completion or conclusion thereof is for the best interests of the United States."

The decisions reached may be indicated concisely in the following table, summarized from the report of the United States Shipping Board for the year ended June 30, 1922, showing the original program of ship construction, the cancellation after the armistice, and the ships delivered to the board up to May, 1922, when the program was completed.

TABLE 7.—STATUS OF UNITED STATES SHIPPING BOARD'S CONSTRUCTION PROGRAM, 1922

Class of vessel	Original program		Canceled		Delivered	
	Number of vessels	Dead-weight tons	Number of vessels	Dead-weight tons	Number of vessels	Dead-weight tons
Requisitioned steel.....	419	2,963,406	35	276,140	384	2,687,266
Contract steel.....	1,741	11,914,670	432	2,986,975	1,309	8,927,695
Contract wood.....	1,017	2,052,200	428	1,166,950	589	1,885,250
Contract composite.....	60	175,000	32	112,000	18	63,000
Contract concrete.....	43	302,000	31	228,500	12	73,500
Total.....	3,270	18,407,276	958	4,770,565	2,312	13,636,711

Source: Sixth Annual Report, U. S. Shipping Board, p. 259.

The construction program was completed May 9, 1922, except one cargo steamer of 9,400 tons suspended. The delivery according to calendar years was as follows: 1917 (August-December), 50 vessels of 305,215 dead-weight tons; 1918 (calendar year), 533 vessels of 3,025,806 dead-weight tons; 1919, 1,180 vessels of 6,384,423 dead-weight tons; 1920, 473 vessels of 3,129,567 dead-weight tons; 1921, 72 vessels of 743,300 dead-weight tons; 1922 (January-May), 3 vessels of 39,000 dead-weight tons; in all, 2,311 vessels of 13,627,311 dead-weight tons.

SHIPBUILDING RESULTS SUMMARIZED

The results obtained through the Government construction program can be measured more closely by comparison with the world's maximum pre-war output in 1913, when 3,330,000 gross tons were launched. During the fiscal year ended June 30, 1917, before the program was begun, 664,000 gross tons of merchant ships were built in American yards and were ready for trade. During the first year of the Government program, ended June 30, 1918, the American output rose to 1,300,000 gross tons, and during the second year, ended June 30, 1919, the American output reached 3,326,000 gross tons—virtually the pre-war maximum output of the whole world. For the year ended June 30, 1920, the output was 3,880,000 gross tons, and for June alone it attained 400,000 gross tons, the object aimed at in April, 1917.

These results were obtained by employing wood and concrete as well as steel for hulls and by confining construction to a few types of cargo ships and multiplying the output from uniform plans and drawings, as Great Britain had done with its 12 types of "standard ships." The British standard ship comprised 42 per cent of the British output early in 1918 and 76 per cent at the close, when that calendar year's production was 1,580,000 gross tons as compared with the American output of 2,200,000 gross tons. The British Government, however, according to available records, apparently considered the standard ships so built as entirely war material.

In respect of the reasons for and results of the Shipping Board's construction program, the British chairman of the Allied Maritime Transport Executive stated:

The most notable and important effort at shipbuilding, however, was not Great Britain's but America's. Before the war shipbuilding in North America was almost insignificant, her output in 1913 being only 276,000 tons as compared with Great Britain's 2,000,000. She had neither the plant nor the experience to enable increased building to be rapidly improvised. She was, however, in other respects in a particularly favorable position to develop her building resources when new ships were most required. She entered the war just when the intensive submarine campaign was at the height of its success and when merchant ships were the first necessity of the allied cause. Her resources in men and materials were the first necessity of the allied cause. Her resources in men and materials were untouched and incomparable. She was the greatest steel-producing country in the world, and, though she had not devoted her efforts to shipbuilding, she had resources and experience in mechanical work which made it easier for her to turn to this new work than it would have been for any other country.

The European Allies had sacrificed everything in the earlier years of the war to what were then the predominant necessities, the recruiting of the armies, the increase of the navies, and the manufacture of munitions, and had committed their resources too far to render a big effort in shipbuilding possible.

Now, in the fourth year, merchant ships ranked for the first time as equal and perhaps superior in importance. This presented an opportunity for a specific, appropriate, and decisive contribution by America. It was only in the following year, 1918, that the need for combatants again took an even more important place, and that it became clear that America's supreme contribution would after all be in men and not in ships. For the time the case for an immense effort in shipbuilding was decisive. * * *

In April, 1917, when America declared war, there were only 37 steel-ship yards (with 162 slipways) and 24 wooden-ship yards (with 72 slipways). All these yards were full, 70 per cent being engaged with naval orders and the remainder with ships on order by private merchants or allied or neutral Governments. By the armistice there were 223 yards with 1,099 ways, of which 40 per cent were for the building of steel ships. In 1914 America produced only 276,000 gross tons of merchant ships. Toward the end of 1918 she was producing 3,000,000 gross tons. In 1919 her total production equaled her program of 6,000,000 tons dead weight (or about 4,000,000 tons gross).

POSTAL CONTRACT SERVICES

Extension of steamship services between the Atlantic and Pacific coasts of the United States and between these coasts and foreign countries by means of ocean-mail contracts²⁰ may be considered broadly as taking place during four periods:

First period: From 1845 to 1858, based principally on the laws of March 3, 1845, and March 3, 1847.

Second period: From 1864 to 1877, based on the law of May 28, 1864.

Third period: From 1891 to 1920, based on the ocean mail act of March 3, 1891.

Fourth period: Beginning with merchant marine act of May 22, 1928.

PERIOD FROM 1845 TO 1858

Historically the period from 1845 to 1858 is of greatest interest.²¹ It was then that the rising tide of immigration into the United States first assumed definite shape; that the experimental operation of steamers by the Governments of France, Great Britain, and Norway came to an end through transition to private control; that the metal ship first made its general appearance—a development which became a most potent force in the decline of the American merchant marine and in the rise of the British fleet. In addition, settlement of the northwest-boundary question, the Mexican War, and the California gold discovery gave powerful impetus to the establishment of communications with the Pacific coast by other means than sailing vessels on the long voyage around South America.

TRANSATLANTIC SERVICES

Entry of British mail-contract steamers into the trans-Atlantic service brought the question of trans-Atlantic mails between the

²⁰A lengthy discussion and contemporary comment on the mail-subsidy system in the United States appear at pp. 321 to 397 of the "Report to the United States Shipping Board on Attempts Made to Obtain Aid for American Ships from Earliest Times to the Year 1926," by Alexander R. Smith, issued in 1926 by the U. S. Shipping Board.

²¹For thorough and complete official reports on the mail-subsidy situation as it existed at the height of the first period, reference may be had to Senate committee report No. 287, Thirty-second Congress, first session. This report was made by Senator Thomas J. Rusk, of Texas, for the Committee on the Post Office and Post Roads. House of Representatives Executive Document No. 91, Thirty-second Congress, first session, is a report by the Secretary of the Navy transmitting information in respect of mail steamers, their cost and operations.

United States and continental Europe sharply to the official attention of governmental authorities. So far as speed was concerned, the clipper ships of United States registry at this time were generally considered the fastest means of ocean transportation. The early steamers made no better passage time than the fast clippers; but carriage of the transoceanic mails gave rise to requirements of dependability and regularity which could not be met by sailing vessels.

British steamers soon carried all the trans-Atlantic mails, with the result that continental mails were transmitted through the British post office and transshipped in British ports. At the same time the mails were largely open to inspection by the postal authorities, a practice which was ended by international agreement following the inauguration of United States trans-Atlantic lines. Mail rates were extremely high.

GERMAN INFLUENCE ON ORIGINAL MAIL CONTRACTS

The effect of German emigration on the establishment of the first trans-Atlantic steamer line under United States registry and the subsequent effect of the failure of this line upon the establishment of the North German Lloyd are too important not to be considered in some detail.

The Cunard mail service from Liverpool to Boston was on a 14-day schedule. The Bremen post office was obliged to employ the Cunard Line, inasmuch as sailing vessels between Bremen and the United States required an average of 27 days. Thus mail and express between the Continent and the United States had to pass through England to be forwarded on British ships. Transshipment at Liverpool was troublesome and greatly increased mail and freight rates that were already high.

As an example of the virtual monopoly on the carriage of mail created by the British mail-steamer services, the Postmaster General of the United States on March 9, 1846, reported to the United States Senate that a letter weighing one-half ounce dispatched from Boston to Bremen by the Cunard Line was charged 42 $\frac{2}{3}$ cents, while an ordinary sized newspaper was charged 61 cents. The Postmaster General felt that such rates would prohibit intercourse between the United States and the Continent.

In 1845 approximately 30,000 Germans migrated to the United States. The Postmaster General asserted that German immigration would and should mean a considerable commercial intercourse between Germany and the United States, and in considering mail contracts for Europe, under authorization by Congress, he insisted upon direct sailings to Bremen by way of Cowes despite the preferences of bidders to terminate their services at French ports.

The Bremen Senate, fully awake to the possibilities of Bremen as a port of entry, sent C. T. Gevekoht to the United States, commissioned to cooperate with the United States authorities in organizing a direct steamship service with the Continent. On behalf of the Bremen Senate, Mr. Gevekoht offered to exempt the United States contract ships from all port and tonnage charges and duties to which other vessels were subject in Bremen; to exempt from duties and charges all bunker coal which was to be stored there for use

of the contract ships; and, finally, to arrange with the Bremen postal authorities for especially favorable terms in the handling and forwarding of United States mails to continental destinations "without customary molestation or examination."

FIRST TRANS-ATLANTIC CONTRACT

By a law of March 3, 1845, the Congress of the United States authorized the Postmaster General to advertise for bids to provide for the transportation of the mails between the United States and foreign countries. On February 16, 1846, Edward Mills, of New York, submitted a proposal to build four vessels of equal or greater tonnage and speed than the Cunard ships then on the Liverpool-Boston run and to operate them from New York to Bremen and Havre by way of Cowes, on a semimonthly basis from New York and alternately on a monthly basis to Havre and Bremen. The two vessels which were to maintain monthly sailings between New York and Bremen were to receive a subsidy of \$100,000 each per year, while the two vessels which were to maintain monthly services between New York and Havre were to receive subsidies of \$75,000 per year per ship, a total of \$350,000 annually for the four vessels for the carriage of the mails between the United States and continental Europe.

The Mills bid was accepted. The original contract with Mr. Mills was dated June 19, 1846, for a term of five years from March 1, 1847, but was not placed in execution until April 19, 1847. In the meanwhile the contract had been assigned to the specially organized Ocean Steam Navigation Co., and this company had executed a new contract as of February 2, 1847. The Ocean Steam Navigation Co. therefore became the first United States steamship company to engage in transoceanic mail-contract services.

German Government support of Ocean Co.

Details of the execution of the first contract are not at hand. Apparently Mr. Mills's bid was predicated upon the belief that the contract with the United States Government would enable him to raise the necessary capital with which to build the contract vessels. At least no advances were made by the Government to aid in the construction of the vessels, as was later the case with the Collins Line. (See p. 52.)

Upon the failure of Mr. Mills to raise the necessary capital with which to build his vessels, the representative of the Bremen Senate, who was still in the United States, suggested to the Bremen Senate that the necessary \$300,000 be raised in Germany.²² Bremen, with the aid of the German States, raised \$289,000, which was divided among reliable business houses in the United States to be used for subscription to stock in the newly-formed Ocean Co.

²² Official information on this transaction is lacking, but the details as given are based upon statements made in two unofficial publications, "Seventy Years of North German Lloyd, 1857-1927," a financial history of the North German Lloyd published in the interests of the company, and Dr. Erich Murken's "Die grossen transatlantischen Linienreederei-Verbände, Pools und Interesseengemeinschaften." Doctor Murken served for many years as assistant to Albert Ballin, general director of the Hamburg-American Line. Doctor Murken states that the Bremen and Prussian Governments participated to the extent of \$100,000 in the capitalization of the Ocean Steam Navigation Co.

The United States agents were instructed to pay the German Governments 6 per cent out of any dividends received. No interest was required if dividends were not earned. In addition to the Government funds private subscriptions were taken until a sum of \$534,000 was reached. Thereupon Mr. Mills's interest was purchased for \$50,000 and the company reorganized.

The *Washington* sailed on its first voyage from New York June 2, 1847, arriving at Bremerhaven June 19; the second vessel, the *Hermann*, sailed on March 21, 1848. The two steamers were not economical of operation and used up the available funds, thus preventing the construction of the second two vessels. The German Governments again, under the leadership of Bremen, attempted to raise further funds but failed, due to the revolution of 1848.

In 1852 the mail contracts were renewed for another 5-year period, and, despite high operating costs, the company enjoyed some prosperous years, paying dividends of 7 to 10 per cent. The year 1858 ended this service, as the contract was not renewed by the United States Government. The directors of the Ocean Steam Navigation Co. suggested liquidation, to which the German Governments agreed. The two vessels were sold June 17, 1858, to California interests for service in the Pacific.

A Forerunner of the North German Lloyd

The end of the first trans-Atlantic mail steamer line under United States registry was coincidental with the organization of the North German Lloyd, and the German influence and experience in and with the United States line were potent factors in the establishment of the German company. The following statement summarizes the effect of the steamer operations.²³

The Bremen merchant fleet owed very much to Bremen-American shipping. This line had started several improvements which were a benefit to all ships. The dredging of the Weser had made progress, the railway from Bremen to Hannover had been completed more quickly (it was opened on December 12, 1847), and, most important of all, Bremerhaven had, at great expense, received adequate harbors for ocean steamers.

So it happened that, when the Ocean Steam Navigation Co. dissolved in 1856-57 and Bremen merchants resolved to organize their own Bremen-New York line as a substitute, they found their road already paved. In his *Memoirs* Duckwitz writes that the Ocean Steam Navigation Co. "had blazed the trail for a later enterprise; the experience they had gained had taught their successors what to do and what not to do to achieve better results." The stream of passengers and freight was already headed for Bremen. Mail conditions were regulated, mail contracts with this line had been closed in all directions, so that through this line, even though it was now given up, the foundation had been laid on which others could continue to build.

After 10 years of activity the American company, in which German interests were centered, had ceased to exist but had become the forerunner of the great Bremen shipping company, the North German Lloyd.

THE COLLINS LINE

The first steamships to equal and exceed the record made by the British Cunarders were the ships of the Collins Line, built in the United States and operated under United States registry. The Collins Line had its inception in a Government mail contract (1847),

²³ *Seventy Years of North German Lloyd, 1857-1927, p. 17.*

the ships being built after the contract was concluded and after funds had been advanced by the Government for that purpose. Thus both the construction and operation of the ships of the Collins Line were dependent upon mail-contract subsidies.

E. K. Collins had been a bidder in connection with the Bremen service which became the Ocean Steam Navigation Co. However, his bid specified Liverpool as the outward terminal, and, since the policy of the Post Office Department at that time seemed to be the establishment of direct services to the Continent, the Collins bid was not considered.

The original Collins bid was made on March 6, 1846. It covered sailings twice a month between New York and Liverpool during eight months of the year and monthly sailings during four months, for an annual payment of \$385,000.²⁴ The bidder proposed to build five 1,000-horsepower vessels of not less than 2,000 tons each, four to be completed in 18 months.

On March 3, 1847, the Collins bid was accepted by act of Congress in the following language: "That from and immediately after the passage of this act it shall be the duty of the Secretary of the Navy to accept, on the part of the Government of the United States, the proposals of E. K. Collins and his associates, of the city of New York, submitted to the Postmaster General, and dated at Washington, March 6, 1846, for the transportation of the United States mail between New York and Liverpool." Originally payment was to be at the rate of \$19,250 per round voyage between New York and Liverpool for 20 voyages annually, but by act of Congress of July 21, 1852, this was raised to \$33,000 per round voyage for 26 voyages annually, or a total of \$858,000 per annum. By the same law Congress reserved the power to terminate the increased compensation at any time after December 31, 1854, upon six months' notice.

Construction advances

Following the original act of March 3, 1847, Congress authorized advances for the construction of vessels. Various sums advanced at sundry times amounted in the aggregate to \$385,000, repayable in 10 annual payments deducted from amounts due the contractors under a 10-year contract.²⁵ No interest was charged on these advances for nearly two years.

Only four of the five vessels proposed were built. These were the *Atlantic*, of 2,845 tons, which entered service April, 1850; the *Pacific*, of 2,707 tons, which entered service May, 1850; the *Arctic*, of 2,856 tons, which entered service October, 1850, and the *Baltic*, of 2,723 tons, which entered service November, 1850. Improvements in machinery, changes while under construction, and expensive passenger accommodations increased the cost, until the aggregate for the four ships reached \$2,944,143—an average of almost \$265 per gross ton, a third to a half again as expensive as the ships of the competing Cunard Co.

The Cunard Co.'s virtual monopoly had resulted in trans-Atlantic freight rates of about \$35 per ton. The entry of the Collins Line

²⁴ Veto message to House of Representatives, President Franklin Pierce, Mar. 3, 1855.

²⁵ H. Doc. No. 281, July 14, 1854.

created a rate war which brought freight rates down to less than \$20 per ton. The Collins steamers excelled the Cunard steamers in speed and obtained the greater portion of the passenger traffic thereby; in 1852 the Collins Line carried 50 per cent more passengers to New York and 30 per cent more passengers to Liverpool than its competitors, its ships crossing in less than 10 days. During 1852 the average time saved by the Collins ships in crossing was 14 hours, a margin which proved important enough to induce the Cunard Co. to build two more ships, which were unsuccessful in maintaining the speed records set by the Collins vessels.

The Collins Line remained in operation eight years. Bad luck, the dramatic loss of two ships with large loss of life, and other adverse factors brought the Collins operations to an end in 1858.

President's veto message

On March 3, 1855, President Pierce filed with the House of Representatives his veto message in disapproval of a bill that had been passed by Congress to continue the increased compensation which the line was then receiving. This message contains a brief outline of the Collins operations and the Government's contribution to the venture and states that from the beginning of the operation of the line to the close of the fiscal year 1854, \$2,620,900 was paid to the Collins Line by the United States Government, while postal receipts for the same period were \$734,000, showing a subsidy of \$1,886,000. The total sum paid therefore amounted to about 90 per cent of the cost of the vessels (\$2,944,143).

The main argument of the President's message was that the compensation paid to the Collins Line was sufficient; that if the increased compensation were continued permanently the public interests would not be properly protected; that, generally, the privileges bestowed upon the contractors were without corresponding advantages to the Government.

A significant paragraph in the message, and one that indicates a source of opposition to the trans-Atlantic subsidies, was the following:

To provide for making a donation of such magnitude and to give the arrangement the character of permanence which this bill proposes would be to deprive commercial enterprise of the benefits of free competition and to establish a monopoly in violation of the soundest principles of public policy and of doubtful compatibility with the Constitution.

ATLANTIC-TO-PACIFIC SERVICES

The establishment of mail steamer services from New York to Panama and from Panama to the Oregon territory provides one of perhaps the only two instances in the history of the United States (the other being the movement to Alaska a half century later) where the central Government was actually faced with the condition of large numbers of citizens taking up residence in regions with which there was no safe and reasonably rapid communication except by sea. This condition has repeatedly been encountered by foreign governments in connection with emigration of large numbers of their populations to national colonies or to regions where the national interests

involved demanded that adequate communications be maintained between the home country and the newly established community.

The extraordinary migration caused by the discoveries of gold in California and the consequent growth of settlement and business in that region gave rise to an increased demand for services for conveyance of passengers, mails, and merchandise. Sailing ships made record passages around South America and various steamships entered the Panama trade, but the requirements of regularity and dependability appeared to demand the stability of Government contract services.

NEW YORK-NEW ORLEANS-CHAGRES LINE

The contract for the Atlantic portion of the first intercoastal service was concluded on April 20, 1847, to continue in force for five years. It provided for the establishment of a line of steamships not less than 1,500 tons, to be built under supervision of the Navy Department and to be powered with 1,000-horsepower engines; a vessel of not less than 600 tons might be built. Two of the vessels were required to be completed by March 1, 1848, and the entire line was to be in operation by October 1, 1849. The business of the ships was to transport the mails between New York and New Orleans twice a month, touching at Charleston, Savannah, and Habana; and between Habana and Chagres twice a month. This contract was originally concluded with A. G. Sloo and by him transferred to the citizens of New York on August 17, 1847. The annual compensation for this service was \$290,000.

Difficulty was encountered in connection with the acceptance of the vessels, the Navy Department holding that they were not up to specifications. Thus the first ship built, the *Ohio*, was placed on the line in September, 1849, but because it was not coppered as stipulated was not accepted by the Navy Department until January, 1850. The first ship to be accepted was the *Georgia*, in January, 1850. The third vessel, the *Falcon*, tendered as a temporary vessel, was accepted, but nevertheless initiated the mail service in December, 1848. The line was paid the full contract price for the service upon an opinion rendered by the United States Attorney General based upon performance of mail service rather than completion of vessel equipment.

Revenues and operating costs

The company was known as the United States Mail Steamship Company and by 1852 was operating a fleet of nine steamships, only two of which met contract specifications. The voyage accounts of the fleet show that the principal ship, the *Georgia*, was under command of Lieutenant D. D. Porter, who rose to fame as Admiral Porter, and that the cost of the vessel was \$464,487. During April-September, 1852, the *Georgia* consumed 7,363 tons of coal costing \$44,178; consumed provisions to the value of \$74,237; incurred a wage bill of \$16,651, approximately \$2,800 monthly, and repairs of \$11,862; a total of \$146,928. The *Georgia's* earnings were: 3,213 passengers carried

valued at \$3,227,492 at a rate of nine-tenths of 1 per cent, or \$29,047; a total revenue of \$157,117. The *Falcon* earned \$141,000 during the same period at an operating expense of \$76,000. The entire fleet for the 6-month period earned \$836,879, at an expense, including insurance but not including capital charges of interest and depreciation, of \$746,326. To revenue for the half year should be added one-half of the annual mail pay, of \$145,000, making a total revenue of \$981,879. There was, therefore, a gross profit of \$235,553. If depreciation and interest charges of 12 per cent are applied to the cost of the fleet (approximately \$2,806,000), a capital charge of about \$168,000 results, thus leaving a net profit of the entire operation of \$67,553 for the half year.

LINE BETWEEN PANAMA AND OREGON

The Pacific extension of the intercoastal mail line became known variously as Aspinwall's Line and the Pacific Mail Line. Contract for this service was concluded with Arnold Harris, of Arkansas, on November 16, 1847, and transferred to William H. Aspinwall and associates, of New York, November 19, 1847. The contract provided for monthly mail services between Panama and Oregon by at least three steamers, two of not less than 1,000 tons and one of not less than 600 tons, for an annual compensation of \$199,000. The steamers were to be approved or rejected before leaving the port of New York. The service was considered as beginning in October, 1848, for a period of 10 years, and included the delivery and taking of mails at San Diego, San Francisco, Monterey, and Astoria. Following this arrangement the assignee and his associates applied to Congress for additional compensation, and by a law of March 3, 1851, the Postmaster General was authorized to increase the trips of the Pacific line to semimonthly sailings and to increase the compensation to not more than \$348,250.

The total cost of the fleet placed in the Pacific service was \$1,555,069. The cost of steamers placed in service on both the Atlantic and the Pacific by the contracting companies was \$5,124,777. Against this the Government advanced, in various amounts and at various times, a sum equal to one year's mail pay under the original contracts, so that a total of \$489,000 was advanced to the two companies.

Up to the middle of 1852 compensation paid for the services from New York to Oregon amounted to \$1,607,087, while the receipts from postage over the same route were \$930,478.²⁷

Completion of Panama Railway

The principal result of the establishment of the intercoastal lines by way of Panama was the saving in time. Mail was transported from New York to San Francisco in 26 days before completion of the Panama Railway. Five hundred troops were sent to California by this route and reached their destination in 35 days, while a similar operation by Cape Horn probably would have required many months. (The transport *Leavington* required seven months and one day from

²⁷ *Idem*, p. 13.

New York to San Francisco.) The possibility of reduction in time in concentrating the small numbers of the United States military forces was therefore considered as adding materially to their efficiency.

Establishment of the steamer services proved a great stimulus to the completion of the Panama Railroad. The overland route across the isthmus had had such an evil reputation for fevers and tropical diseases that migration and commerce generally moved around Cape Horn, but when the gold rush to California began the time element became so important that many of the gold seekers used the Panama land route despite its hardships.

The Panama Railroad had been in process of promotion since 1828, the last concessionaire failing in 1848. Following this failure the assignees of the Pacific mail contract, headed by William H. Aspinwall, obtained a franchise for the construction and on April 7, 1849, the Panama Railroad was incorporated with a capitalization of \$1,000,000, afterwards increased to \$5,000,000.²⁸ The railroad was completed in 1855 and proved a boon to contracting steamship companies. One of the subscribers to shares in the venture was the Royal Mail Steam Packet Co.. (See p. 247.)

WEST INDIES SERVICE

On May 10, 1851, a contract was concluded between the Postmaster General and M. C. Mordecai, of Charleston, S. C., for the transportation of mails between Charleston and Habana by way of Savannah and Key West. This contract provided for services twice a month each way for an annual compensation of \$50,000.

END OF FIRST PERIOD

Almost from the very inception of the mail-contract system in the United States opposition arose against it in Congress. The principal organized objection to the mail-contract system may be traced to the sailing-ship interests, which believed that the competition set up by Government-subsidized steamer lines would prove ruinous to their operations. To this charge the subsidy advocates in Congress replied that if the United States Government did not promote steam communications the natural force of the development of the steamship would displace the sailing ship. However, in the years immediately preceding the Civil War the growing objections to the mail-contract system by encouragement of steamer lines would in all probability have been offset by the increased interest in steam navigation by the shipping communities had not other factors developed.

The lines to the West Indies, to Panama, and to Oregon were not subjected to foreign competition as were the trans-Atlantic lines and, having, under the restrictions imposed by the coastal laws, a virtual monopoly on the carriage of passengers and goods between ports of the United States, although not between such ports to or from Panama, were able to survive the loss of the difference between previous subsidies and mail pay.

²⁸ Long, W. Rodney: *Railways of Central America and the West Indies*, p. 123. Issued as Trade Promotion Series No. 5 by the Bureau of Foreign and Domestic Commerce, Washington, D. C.

LAWS COVERING FIRST MAIL-SUBSIDY PERIOD

The acts of Congress authorizing the development or ending of the first period of mail contracts by ocean steamers are as follows:

July 2, 1845: Authorized Postmaster General to conclude contracts for carriage of mails by sea to foreign countries.

March 3, 1847: Ordered Secretary of the Navy to accept Collins proposals.

July 10, 1848: Further authorization for Secretary of Navy.

March 3, 1851: Regulations for Postmaster General.

July 21, 1852: Increased services and compensation with restrictions.

July 5, 1854: Further restrictions.

March 3, 1855: Reduction in amount of appropriations.

June 14, 1858: Abrogation of the 10-year clause in mail contracts.

October 14, 1859: Provided for notice of complete abrogation of contracts.

SUBSIDY PAYMENTS DURING FIRST PERIOD

Meeker's History of Shipping Subsidies gives the total expenditures for postal subsidies during the first subsidy period as:

TABLE 8.—TOTAL UNITED STATES EXPENDITURES FOR POSTAL SUBSIDIES, 1847-1858

Line	Period	Amount	Line	Period	Amount
New York-Bremen.....	1847-1857	\$2,000,000	New York-Panama.....	1848-1858	\$2,900,000
New York-Havre.....	1852-1857	750,000	Astoria-Panama.....	1848-1858	3,750,000
New York-Liverpool.....	1850-1858	4,500,000	Charleston-Habana.....	1848-1858	500,000
			Total.....		14,400,000

PERIOD FROM 1864 TO 1877

The second mail-contract period resulted in the extension of steamer services under United States registry to South America and to China and Japan. The latter service was provided by the Pacific Mail Steamship Co., which company remained in existence until 1925, with a temporary suspension of service following the enactment of the seamen's law of 1915.

SERVICE TO BRAZIL

Ocean-mail steamship service between the United States and Brazil was established under an act of Congress approved by President Lincoln on May 28, 1864. This law authorized the Postmaster General to unite with the Imperial Post Office of Brazil in the establishment of monthly direct mail services by means of steamers of not less than 2,000 tons, touching at St. Thomas and at Bahia, Pernambuco, or other Brazilian ports considered necessary. It was provided that the expense was to be divided between the two countries and that the portion of the United States should not exceed \$150,000 annually for 12 round voyages.

The same law provided for the letting of the contract by public bidding, and that both Governments should accept the same proposal

but subject to separate contracts, each Government to be responsible for its own contract only. Vessel equipment tendered for performance of the contract was made subject to the approval of the Secretary of the Navy. The contribution of the Brazilian Government to the annual compensation of the contractor was \$100,000.

The contract ran for 10 years and expired on September 30, 1875.²⁹ Various presidential messages recommended consideration of continuation of mail-contract steamer services to Brazil, and in 1879 some agitation took place in Congress in favor of such services but without result. Brazil entered into another contract with the United States & Brazil Steamship Co. for a period of 10 years on a monthly basis, paying the contractor \$110,000 to \$120,000 annually.³⁰ Following this period the line was discontinued in 1893.

SERVICE TO CHINA AND JAPAN

On February 17, 1865, Congress authorized the Postmaster General to invite proposals for the conveyance of mails between San Francisco and China (touching at Honolulu) and Japan, with a monthly service by vessels of at least 3,000 tons and subject to approval by the Secretary of the Navy. Expenditure for this purpose could not exceed \$500,000 annually, and the contract was limited to United States citizens. The contract concluded with the Pacific Mail Steamship Co. was for 10 years from January 1, 1867.

The requirement for calls at Honolulu was withdrawn two years later in favor of a branch line to be operated by the contractor between the Japanese port of call and Shanghai. At the same time proposals were invited for direct monthly services between San Francisco and Honolulu, with 1,000-ton vessels. The annual expenditure was limited to \$75,000 and the contract awarded to the California, Oregon & Mexican Line for a period of 10 years.

In 1872 the Pacific Mail Steamship Co. proposed a semimonthly service to China and Japan in the form of a monthly service alternating with the service already established. This was authorized to become effective October 1, 1873, for an additional annual sum of \$500,000, making a total of \$1,000,000 for the China services of this company.

Under the original contract the Pacific Mail built four wooden side-wheelers, luxuriously fitted out but obsolete in design. Later some iron steamers were added. Under the additional contract the company built the *City of Peking* and the *City of Tokio*, 5,000 gross ton vessels. Before these vessels were completed, however, the second contract was abrogated by the law of March 3, 1875.³¹

OTHER PROPOSED SERVICES

On July 27, 1868, the President approved an act which gave a 15-year monopoly to the Commercial Navigation Co. of New York

²⁹ President Grant's Seventh Annual Message to Congress, Dec. 7, 1875.

³⁰ Speech of Representative Nathan Cole, of Missouri, in the House on Senate amendment, February, 1879.

³¹ Forty-third Congress, first session: S. Rept. No. 286, Committee on Commerce report on resolution of the Legislature of California, remonstrating against granting additional subsidy to the Pacific Mail Steamship Co.

Forty-third Congress, second session: S. Rept. No. 874, Committee of the Judiciary.

Forty-third Congress, first session: H. Misc. Doc. No. 255, Committee on Appropriations.

for the conveyance of mails weekly or semiweekly from New York to Queenstown, Southampton, and Bremen. The company was to build seven iron vessels and was to receive inland and sea postage up to an amount of \$400,000, after which only sea postage was to be paid up to \$600,000 annually.

The Postmaster General refused to conclude the contract, considering it against the best interests of the mail service to reduce the outward European mails from four sailings a week to two. A contract for carrying the mails four times a week for these postage rates was offered the company, but this was not taken.

Two other lines were proposed, one from New Orleans to Cuba and one to Australia, neither of which was instituted.

LAWS COVERING SECOND MAIL-SUBSIDY PERIOD

The following acts of Congress relate to the second period of American ocean-mail contracts:

- May 28, 1864: Authorized Brazilian contract.
- February 17, 1865: Authorized China and Japan services.
- February 18, 1867: Special provisions relating to services.
- March 2, 1867: Provisions of services.
- July 27, 1868: Authorized mail conveyance monopoly to Commercial Navigation Co., New York.
- June 1, 1872: Authorized semimonthly schedules in the China service, and doubled annual payments to Pacific Mail Steamship Co.
- March 3, 1875: Complete abrogation of second Pacific Mail Steamship Co. contract.

SUBSIDY PAYMENTS DURING SECOND PERIOD

The total expenditures on the contracts in force during the period 1864 to 1877 approximated \$6,500,000, of which \$1,500,000 went to the Brazil Line, \$4,580,000 to the Pacific Mail Steamship Co., and \$425,000 to the Honolulu service.

PERIOD FROM 1891 TO 1920

In the decade from 1890 to 1900 the United States became a colonial power. Events in 1892-93 resulted later in the annexation of Hawaii; the Spanish-American War led to the acquisition of the Philippines and Porto Rico in 1899.

Coincidentally with these developments there was much agitation in favor of encouragement of shipping; the United States for the first time became conscious of its political position in world affairs and the growing necessity for overseas contact by ships for political as well as for purely commercial reasons. It is interesting to observe that when these necessities became obvious the only form of direct aid in the establishment of overseas communications taken by the Government was the policy adopted by all other governments in the maintenance of overseas communications with communities of political affiliation with the home country, namely, the ocean mail contract.

During 1890 and 1891 Congress had under consideration two distinct types of aid to shipping. One was of a general bounty nature—the granting of payments to vessels for work done or mileage sailed,

a direct aid to shipping as an industry. This policy failed of adoption. The other proposed policy was the establishment of communications through vessels of United States registry, thus indirectly aiding the establishment of shipping lines of required performance and regularity.

OCEAN MAIL ACT TO 1891

The policy adopted by Congress rested on the ocean mail act of March 3, 1891. This piece of legislation, with modifications, remained on the statute books until repealed by section 414 of the law of May 22, 1928. The ocean mail act of March 3, 1891, authorized the Postmaster General to conclude contracts for not less than 5 nor more than 10 years for the conveyance of mails by sea between the United States and foreign countries, Canada excepted.

The law was designed primarily for the promotion of ocean mail services, it being stipulated that the letting of mail contracts should be in a manner to "best subserve and promote the postal and commercial interests of the United States, the mail service on such lines to be equitably distributed among the Atlantic, Mexican Gulf, and Pacific ports." Penalty clauses for nonperformance and reduction in payments for reduction in voyages were included, and the law specifically provided (sec. 5) that contract vessels should not receive any other subsidy or bounty from the United States Treasury.

The ocean mail act of March 3, 1891, contemplated four classes or types of vessels, with different rates of compensation for each class.³² Thus ships of the first class, comprising iron or steel screw steamers of not less than 8,000 gross tons, capable of maintaining a speed of 20 knots, were allowed \$4 per mile on the outward voyage; those of class two, iron or steel vessels of at least 5,000 gross tons, capable of maintaining 16 knots, were allowed \$2 per mile on the outward voyage; those of class three, iron or steel steamers of not less than 2,500 gross tons, capable of maintaining a speed of 14 knots, were allowed \$1 per mile on the outward voyage; and those of class four, iron or steel or wooden steamers of not less than 1,500 gross tons, capable of maintaining a speed of 12 knots an hour, were allowed \$0.66 $\frac{2}{3}$ per mile on the outward voyage. All vessels of the first three categories were subject to approval by the Secretary of the Navy before being employed under mail contracts and were required to be suitable for mounting and working at least four 6-inch guns.

Later, by a law of March 3, 1917, the provisions of the ocean mail act of March 3, 1891, were enlarged to include vessels of at least 35,000 gross tons and of 30 knots speed, payment of \$8 per mile on each outward voyage being authorized.

ROUTES ESTABLISHED UNDER 1891 LAW

On July 15, 1891, the Post Office Department invited proposals on 53 lines—10 to Great Britain and the Continent, 27 to South America, 3 to China and Japan, 4 to Australia and the Pacific islands, 7 to the West Indies, and 2 to Mexico. However, bids were received and contracts awarded for only 11 routes, as follows:

³² The bill proposing the act of Mar. 3, 1891, carried mileage allowances one-third higher than those finally enacted, namely, \$6, \$3, \$1.50, and \$1, respectively, for the various vessel classes.

TABLE 9.—FIRST MAIL CONTRACTS AWARDED UNDER LAW OF 1891

Route No.	Effective date of contract	Termini	Life of contract, years
30	Apr. 26, 1893	Galveston-La Guaira	5
36	Mar. 1, 1892	New York-La Guaira	10
42	Feb. 1, 1892	New York-Colon	10
44	Do.	San Francisco-Panama	10
47	Do.	San Francisco-Hong Kong	10
57	Oct. 12, 1895	New York-Southampton	10
58	Do.	New York-Antwerp	10
64	Dec. 10, 1892	New York-Buenos Aires	10
67	Dec. 1, 1892	New York-Rio de Janeiro	5
69	Nov. 1, 1892	New York-Turpan	5
70	Do.	New York-Habana	5

In 1894 only four of these contracts were in force, namely, routes 36, 57, 69, and 70, and only three routes were in operation. Service on route 57, New York to Southampton, had not yet been instituted, but began in 1895.

The report of the Post Office Department for 1899 shows five routes in operation, the new one being No. 74, Boston and Philadelphia to Jamaica, which began service January 1, 1899. Service on the other four routes, which had been interrupted by the war in April, 1898, was resumed in October, 1898. However, "on route 36 the service has been resumed only partially, as one of the steamers has been purchased by the Government and the company has not yet been able to replace it. Consequently, only two trips a month are now being made on route 36, instead of three trips as required by the contract."

In 1902 the contract on route 36, New York to La Guaira, expired and was replaced by two contracts, namely, route 36, New York to Cabello, Venezuela, every two weeks by third-class vessels, for 10 years; route 37, New York to Maracaibo, Venezuela, once every two weeks in vessels of the fourth class, for 10 years. The contracts on routes 69 and 70 also expired in 1902 and new contracts were awarded commencing November 1, 1902—on route 69 for 10 years and on route 70 for 5 years.

One new contract was awarded in 1905, making a total of eight routes in operation.

In 1907 route 75, San Francisco to Sydney, New South Wales, suspended performance, but in 1912 a 10-year contract was entered into for service in 16-knot vessels from San Francisco to Australia, thus reestablishing on the Pacific a regular mail service under the American flag. Contracts to Mexican ports via Habana and to Venezuela which expired in 1912 were renewed for 10 years.

In 1913 only six contracts under the provisions of the ocean mail act of 1891 were in force, as follows:

Route 36: New York to Puerto Cabello, Venezuela, once every two weeks, in vessels of 14 knots.

Route 37: New York to Maracaibo, Venezuela, once every two weeks, in vessels of 12 knots.

Route 57: New York to Southampton, England, 52 trips per year, in vessels of 20 knots.

Route 69: New York to Vera Cruz, Mexico, 52 trips per year, in vessels of 15 knots.

Route 74: Boston to Port Antonio, Jamaica, 52 trips per year, and from Philadelphia to Port Antonio, 52 trips per year, in vessels of 12 knots.

Route 80: San Francisco to Sydney, Australia, 13 trips per year, in vessels of 16 knots.

CONTRACT PAYMENTS UNDER 1891 LAW

The total contract payments made under the provisions of the ocean mail act of 1891 are shown in Table 10.

TABLE 10.—PAYMENTS ON CONTRACTS UNDER LAW OF 1891

Fiscal year ending June 30—	Total pay- ments ¹	American Line, New York to Ant- werp and Southamp- ton	Oceanic Co., San Fran- cisco to Sydney	New York & Cuba Mail Co., New York to Vera Cruz	Red D Line to Venezuela	
					New York to Puerto Cabello	New York to Mara- caibo
1892.....	\$82,075		\$55,000		\$27,075	
1893.....	222,355		56,000	\$85,068	81,287	
1894.....	453,854	\$188,720	56,000	130,104	79,030	
1895.....	484,392	220,258	55,000	130,104	79,030	
1896.....	777,162	512,028	56,000	130,104	79,030	
1897.....	1,104,072	757,680	135,000	130,104	81,288	
1898.....	882,606	580,800	136,000	102,582	63,224	
1899.....	752,146	485,674	136,000	87,570	42,902	
1900.....	967,574	647,278	136,000	130,104	54,192	
1901.....	845,862	528,538	133,272	127,602	56,450	
1902.....	1,144,299	662,184	283,203	130,104	53,528	\$15,280
1903.....	1,176,343	660,672	283,203	130,104	63,315	39,049
1904.....	1,209,617	690,483	283,203	132,606	60,890	42,445
1905.....	1,200,637	662,688	299,862	130,629	63,315	44,143
1906.....	1,252,563	762,638	249,885	130,884	63,315	45,841
1907.....	1,062,838	691,224	133,272	130,884	63,315	44,143
1908.....	970,488	737,016	(²)	130,884	58,445	44,143
1909.....	955,556	737,536	(²)	130,884	42,993	44,143
1910.....	912,103	676,480	(²)	133,401	63,173	39,049
1911.....	884,648	646,472	(²)	130,884	63,149	44,143
1912.....	829,217	570,672	(²)	150,884	63,210	44,451
1913.....	1,059,126	626,650	201,916	124,288	62,972	43,300
1914.....	1,071,092	673,998	201,916	97,566	62,972	34,640
1915.....	1,096,210	714,178	201,916	69,690	65,394	45,032
1916.....	1,090,918	665,952	248,512	74,336	60,550	41,568
1917.....	1,069,254	639,342	279,576	60,158	55,706	34,472
1918.....	907,412	509,692	248,512	55,752	60,550	32,906
1919.....	317,989	(³)	170,852	72,013	38,752	36,372
1920.....	533,828	198,288	186,384	60,398	63,134	35,724
1921.....	469,008	150,524	170,852	60,298	50,862	36,372
1922.....	242,136		186,384	55,752		
1923.....	288,968		270,384	18,584		
Total.....	¹ 26,316,448	15,597,766	4,854,104	3,284,325	1,813,038	787,216

¹ Does not include the following payments on contracts which had lapsed prior to 1921: (a) From San Francisco to Tahiti, by the Oceanic Steamship Co. from 1902 to 1912, the payments aggregating \$421,566 for the whole period; (b) from New York to Habana, by the New York & Cuba Mail Steamship Co. from 1903 to 1913, the payments aggregating \$1,423,074 for the whole period; (c) from Boston and Philadelphia to Jamaica by the American Mail Steamship Co. from 1909 to 1914, the payments aggregating \$1,469,841 for the whole period. Inclusion of these sums brings the total to \$29,630,929.

² Discontinued and resumed.

³ Steamers taken over by the Navy Department.

RESULTS OF 1891 ENACTMENT

The ocean mail act of 1891 has not generally been considered a great stimulant to United States shipping. It is noticeable that only a few contracts were even bid upon. The law nevertheless did specifically result in the construction of two famous trans-Atlantic liners (the *St. Louis* and the *St. Paul*) and assisted materially in the establishment of the American Line.

When the law was passed on March 3, 1891, the British Inman Line, owner of the *City of New York* and the *City of Paris*, applied for their transfer to United States registry in order to make the ships eligible for mail pay, and offered, as an inducement, to build two more vessels in United States shipyards. Upon the death of Mr. Inman, the Inman Line was offered to the International Navigation Co., operating steamers between Philadelphia and Antwerp under the Belgian flag. By act of Congress of March 10, 1891, Congress granted registry to the *City of New York* and the *City of Paris*, and the International Navigation Co. ordered two new steamers, later named the *St. Louis* and the *St. Paul*, from William Cramp & Sons, Philadelphia.

The American Line's famous fleet

The British-built *City of New York* and *City of Paris* were the first twin-screw ships in the trans-Atlantic trade; they were driven by two sets of triple-expansion engines developing 18,400 i. h. p., with 9 boilers carrying 150 pounds working pressure; both entered service in time to profit by trans-Atlantic travel to the Paris Exposition in 1889. The *City of New York* was the first ship to make the run from Sandy Hook to Queenstown in less than 6 days, doing the passage in 5 days 19 hours 57 minutes in 1892. Later, the *City of Paris*, with its superior speed, did the westward passage from Queenstown to Sandy Hook in 5 days 14 hours 24 minutes.

Launching of the *St. Louis* November 12, 1894, attracted national attention, as this ship was the largest vessel constructed on the American Continent up to that time. The *St. Paul* was launched April 10, 1895. They were the first trans-Atlantic ships built in the United States since the 3,000-ton *Pennsylvania*, *Indiana*, *Ohio*, and *Illinois* left the ways 20 years previously. American design, American material, and American labor were employed throughout. The ships were built and protected as cruisers and carried bunkers for a cruising radius of 19,000 knots, or 66 days' steaming. The International Navigation Co.'s service became known as the American Line.

This quartet of historically important passenger ships served through the most turbulent period of the North Atlantic passenger-ship competition. That they were able to remain in competition with British and German shipbuilding craftsmanship was due, at least partially, to the provisions of the ocean mail act of 1891, although the general financial background of the company was materially strengthened by the operation of its Red Star Line vessels under Belgian registry.

MERCHANT MARINE ACT OF 1920

Under section 24 of the merchant marine act of June 5, 1920, the United States Shipping Board and the Postmaster General jointly were required to determine reasonable rates of compensation for vessels in commercial or postal service, and the Postmaster General was authorized to enter into contracts, within the limits of appropriations made therefor, for the conveyance of mails at such established rates.

This is the first instance of a broad provision of law by which other than suitable mail services were contemplated. In the words of section 5 of the act: "The board and the Postmaster General in aid of the development of a merchant marine adequate to provide for the maintenance and expansion of the foreign or coastwise trade of the United States and of a satisfactory postal service in connection therewith, shall from time to time determine the just and reasonable rate of compensation to be paid for such service." Section 7 authorized the Postmaster General, notwithstanding the ocean mail act of 1891, to contract for the carrying of the mails over "such lines and at such price as may be agreed upon by the board and the Postmaster General."

CONTRACT PAYMENTS UNDER 1920 LAW

Expenditures under the provisions of the merchant marine act of 1920 are stated in Table 11.

TABLE 11.—PAYMENTS ON CONTRACTS UNDER LAW OF 1920

Year	Total payments	American South African Line	Dollar Steamship Line	Export Steamship Corporation	Grace Steamship Corporation	Munson Steamship Line	Oceanic Steamship Co.
1924.....	\$247,852						\$247,852
1925.....	302,874						302,874
1926.....	451,561			\$25,000		\$123,687	302,874
1927.....	1,669,718	\$55,000	\$406,416	100,000	\$243,546	538,584	326,177
1928.....	1,912,982	65,000	440,284	200,000	307,638	573,888	326,177
1929.....	216,966	15,000	15,000	16,666	12,818	40,992	116,494
Total.....	4,801,953	135,000	861,700	341,666	564,002	1,277,151	1,622,434

The coming into force of the merchant marine act of 1928 (discussed below) accounts for the smaller 1929 payments under the 1920 enactment to be noted in Table 11.

PERIOD FROM 1928 TO JUNE 30, 1931

MERCHANT MARINE ACT OF 1928

By an act of May 22, 1928,³³ Congress authorized the negotiation by the Postmaster General of ocean-mail contracts with shipping lines in the foreign trade for the purpose of carrying overseas mails at rates prescribed under Title IV of the act. The law further provides that the Shipping Board may from time to time make recommendations to Congress in respect of requirements for vessel replacements in the commercial fleet.³⁴

The official processes by which ocean-mail services under the act may be established are, first, certification by the Postmaster General to the Shipping Board of the ocean-mail routes which in his opinion

³³ Like its predecessor, the merchant marine act of 1928 was a broadly drawn law; authorization to the Postmaster General to conclude ocean-mail contracts was but one of its provisions. See p. 70 of this present report.

³⁴ The merchant marine act of 1928 was amended in 1929 to include the word "commerce" as well as "mail" (sec. 402); also to extend mail-contract benefits to Canadian ports (secs. 401, 402, 404).

should be established; second, certification by the Shipping Board as to required vessel equipment for service upon such routes; third, conclusion by the Postmaster General of contracts with United States citizens, under competitive public tender, for ocean services between any ports of the United States and others ports between which foreign vessels may trade, the general principle of public bidding governing.⁸⁸

APPOINTMENT OF INTERDEPARTMENTAL COMMITTEE

Immediately after the act of 1928 became operative the Postmaster General certified to the Shipping Board, as essential ocean-mail routes, 27 itineraries, and the Shipping Board certified the necessary equipment to the Postmaster General. These routes were advertised and bids invited by the Post Office Department. Subsequently 25 contracts were awarded to successful bidders.

In 1929 the President appointed an interdepartmental committee to advise with the Postmaster General in the administration of ocean-mail contract awards. In his letter to the Secretary of Commerce appointing this advisory committee President Hoover stated:

It is the intention of the law that these contracts should be used in such fashion as to upbuild and strengthen the merchant marine both for the present and for the future. The Postmaster General feels that the question involves many problems which affect the merchant marine and upon which it is desirable that he should have the considered advice of other interested branches of the Government.

I am therefore appointing a committee comprising yourself as chairman, with a membership consisting of the Postmaster General, the Secretary of the Navy, and Chairman O'Connor of the Shipping Board—this committee to consider and make recommendations bearing upon this question.

I may mention that it would be desirable to appoint a subcommittee of experts in the various departments for the preparation of detailed material for submission to the committee.

Since formation of the Interdepartmental Mail Contract Committee all applications for ocean-mail-contract certifications and problems arising out of mail contracts have been referred to it for consideration and recommendation.

Before making any recommendation to the Post Office Department for the certification of additional mail-contract routes the Interdepartmental Mail Contract Committee had prepared an analysis of the ocean-borne trade of the United States as of the year 1928, to determine what were the primary movements of traffic in the foreign-trade routes of the nation. This study was completed in October of 1929.⁸⁹ With this definite knowledge of the primary movements of traffic by broad geographic areas, the committee has recommended to the Post Office Department from time to time since October of 1929 the certification of some 21 additional routes, covering which 16 contracts have been awarded (to June 30, 1931) and others are pending.

⁸⁸ The Mississippi Shipping Co., although not the low bidder, was awarded ocean-mail contract No. 35 (New Orleans to Bahia Blanca). This award was pursuant to a resolution (No. 190) passed by both Houses of Congress June 21, 1930.

⁸⁹ Ocean Routes in United States Foreign Trade, issued as Trade Promotion Series No. 96 by the Bureau of Foreign and Domestic Commerce, Washington.

CLASSIFICATION OF VESSELS

In order to determine the amount to be paid to vessels operating under these contracts the vessels are divided into seven size and speed groups, with a maximum compensation authorized for each group, as shown in the following table:

TABLE 12.—VESSEL CLASSIFICATION AND MAXIMUM ALLOWABLE PER MILE PAYMENTS UNDER LAW OF 1928

Class	Minimum speed, knots ¹	Minimum tonnage, gross tons	Maximum payment per mile (outward voyage only) ²	Class	Minimum speed, knots ¹	Minimum tonnage, gross tons	Maximum payment per mile (outward voyage only) ²
1.....	24	20,000	\$12.00	5.....	13	8,000	\$4.00
2.....	20	16,000	10.00	6.....	10	4,000	2.50
3.....	18	12,000	8.00	7.....	10	2,500	1.50
4.....	16	10,000	6.00				

¹ The classification of a vessel may be based upon its speed without regard to its tonnage if the Postmaster General is of opinion that speed is especially important on the particular route on which the vessel is to be employed.

² Additional compensation is authorized for vessels of more than 24 knots speed, such additional compensation being proportional to that authorized for 24-knot vessels. Additional compensation may likewise be made in respect of joint air and ocean services.

PROVISIONS OF OCEAN-MAIL CONTRACTS

The 41 contracts between the Post Office Department and American steamship companies for the transportation of ocean-borne foreign mails have varied requirements providing for permanency of the services undertaken, the construction of new vessels, substitutions for and/or betterments to present equipment. These data are shown in Table 13, which summarizes the salient features of each contract, noting the required schedule of sailings and the approximate gross tonnage and estimated cost of the ships to be constructed.

TABLE 13.—PROVISIONS OF OCEAN MAIL CONTRACTS LET PRIOR TO JUNE 30, 1931

Company	Route	Service required, trips per year	New construction, reconditioning, and/or substitutions ¹	
			Total gross tonnage	Estimated cost
Eastern Steamship Lines (Inc.).....	Boston to Yarmouth.....	158	11,000	\$8,000,000
Do.....	Boston to St. John.....	66		
Do.....	New York to Yarmouth.....	26		
American Scantic Line.....	New York to Copenhagen, Helsingfors, and Leningrad.....	40	40,669	3,013,510
Do.....	New York to Murmansk.....	12		
United States Lines ²	New York to Southampton.....	16-52	106,000	60,000,000
Do.....	New York to Hamburg.....	52		
Do.....	New York to London.....	52		
Export Steamship Corp.....	New York to Mediterranean and Black Sea.....	122	62,000	18,400,000

¹ The requirements included in these estimates are for 2 class 1, 11 class 2, 12 class 3, 14 class 4, and 21 class 5 new vessels. Also 28 class 5 and 7 class 6 vessels to be reconditioned or substituted.

² Performance under contract not undertaken as of June 30, 1931, pending completion of construction program.

³ Contract is for five years. Extension for additional five years conditioned on substitution of two ships.

TABLE 13.—PROVISIONS OF OCEAN MAIL CONTRACTS LET PRIOR TO JUNE 30, 1931—Continued

Company	Route	Service required, trips per year	New construction, re-conditioning, and/or substitutions	
			Total gross tonnage	Estimated cost
Roosevelt Steamship Co. (Inc.) ⁴	Baltimore to Hamburg	52	41,250	\$9,220,000
South Atlantic Steamship Co.	Savannah to Liverpool and Bremen	36	24,000	7,000,000
			15,000	150,000
Munson Steamship Line	New York to Buenos Aires	26		
Grace Steamship Co. ⁴	New York to Valparaiso	52	18,746	7,388,000
Atlantic & Caribbean Steam Nav. Co.	New York to Maracaibo	52	5,300	300,000
Colombian Steamship Co. ⁴	New York to Puerto Colombia	52	15,000	4,500,000
New York & Cuba Mail Steamship Co.	New York to Habana	52	22,000	10,000,000
Do ⁴	New York to Vera Cruz	52	6,678	1,300,000
American Line Steamship Corp. ⁴	New York to Balboa	26	20,526	6,587,225
United Fruit Co. ⁴	New York to Port Limon	52	21,000	10,575,000
American South African Line (Inc.)	New York to Cape Town and Beira	12	16,494	3,900,000
American West African Line	New York to West Africa	20	15,900	900,000
Gulf Mail Steamship Co.	New Orleans to Progreso	36	3,235	75,000
Lykes Brothers Steamship Co.	Galveston to Santo Domingo	76	3,537	100,000
Mississippi Shipping Co.	New Orleans to Bahia Blanca	36-52	19,600	300,000
			10,000	3,900,000
United Fruit Co. ⁴	New Orleans to Puerto Colombia	52	14,400	7,050,000
Tampa Inter-Ocean Steamship Co.	New Orleans to Spain	32	10,000	3,900,000
American West African Line ⁴	New Orleans to West Africa	8	16,494	3,900,000
Tacoma Oriental Steamship Co.	Tacoma to Dairen, Manila	24	10,000	750,000
American Mail Line	Seattle to Manila	26		
States Steamship Co.	Portland to Manila	24	10,600	600,000
Do	Portland to Dairen	12	5,300	300,000
Dollar Steamship Lines	San Francisco to Manila	26		
Do	San Francisco to Colombo	26	92,000	32,000,000
Oceanic & Oriental Navigation Co.	San Francisco to Dairen	14-19	16,000	3,900,000
Do	San Francisco to Saigon	17-21	16,000	3,900,000
Oceanic Steamship Co.	San Francisco to Sydney	17	60,000	25,500,000
Oceanic & Oriental Navigation Co.	Los Angeles to Auckland	12		
Do	Los Angeles to Melbourne	12		
Grace Steamship Co. ⁴	Tacoma to Valparaiso	17	9,000	4,115,019
Pacific Argentine Brazil Line (Inc.)	San Francisco to Buenos Aires	18	23,000	114,000
Panama Mail Steamship Co. ⁴	San Francisco to Puerto Colombia (Habana effective Dec. 31, 1931)	26	18,000	8,230,038
United Fruit Co.	San Francisco to Puerto Armales	52	21,600	10,575,000
New York & Porto Rico Steamship Co. ¹⁰	San Juan to Santo Domingo	52		

¹ Performance under contract not undertaken as of June 30, 1931, pending completion of construction program.

² Original fleet consists of vessels rebuilt for this service.

³ Estimated cost of new tonnage taken from construction loan records.

⁴ Each vessel to be approximately 5,000 gross tons.

⁵ The company substituted a vessel which it already owned for a lower-class vessel.

⁶ The vessel required was building before contract was awarded.

⁷ The new construction required by this contract is dependent upon the earnings of the line.

¹⁰ Contract is for 3 years and 11 months only, beginning Aug. 1, 1928, and ending June 30, 1932.

CONTRACT PAYMENTS UNDER 1928 LAW

The estimated amounts payable by the Post Office Department under these 41 contracts are shown in Table 14. The estimates are based upon the requirements and conditions of the contracts as of June 30, 1931. The effective dates of the contracts, the amounts paid for the fiscal year ended June 30, 1930, the sums to be paid for the fiscal year ending June 30, 1938, and the total expenditures for the 10-year duration of contracts in force as of June 30, 1931, are given. It will be noted that during the current life of these 41 contracts present estimates indicate an outlay by the Post Office Department approaching \$300,000,000.

TABLE 14.—ESTIMATED COST OF OCEAN MAIL SERVICES UNDER CONTRACTS LET PRIOR TO JUNE 30, 1931

Route No.	Line	Effective date of contract	Amount paid for fiscal year ended June 30, 1930	Estimated amount to be paid for fiscal year ending June 30, 1933 ¹	Estimated total for 10-year term of contract
4	Munson Steamship Line.....	Aug. 1, 1928	\$1,225,212	\$1,253,200	\$12,674,140
5	Export Steamship Corp.....	do.....	1,447,460	2,332,713	19,881,084
6	American South African Line.....	Oct. 1, 1928	314,488	322,764	3,050,266
8	Grace Steamship Co.....	Aug. 1, 1928	692,184	1,399,366	12,582,930
10	New York & Porto Rico Steamship Co.....	do.....	47,064	.....	178,488
15	Eastern Steamship Lines.....	Aug. 16, 1928	225,624	299,568	2,756,784
16	American Scantic Line.....	Oct. 1, 1928	534,940	945,504	8,222,328
17	American West African Line.....	do.....	261,265	367,665	3,217,685
18	Atlantic & Caribbean Steam Nav. Co.....	do.....	372,419	410,468	3,969,779
19	Colombian Steamship Co.....	Apr. 1, 1930	66,235	658,710	5,908,005
20	New York & Cuba Mail Steamship Co.....	Oct. 1, 1928	441,192	618,720	5,932,372
21	Do.....	do.....	419,536	419,536	4,195,360
22	Gulf Mail Steamship Co.....	June 1, 1929	22,962	74,060	558,791
23	Lykes Brothers Steamship Co.....	Oct. 1, 1928	271,932	421,499	3,832,217
24	Oceanic Steamship Co.....	do.....	692,886	1,358,130	11,262,756
25	Dollar Steamship Co.....	do.....	1,282,664	1,813,056	15,896,516
26	Admiral Oriental Line.....	do.....	1,070,634	1,427,712	12,880,442
27	Dollar Steamship Co.....	do.....	1,141,296	1,492,464	12,199,336
28	States Steamship Co.....	do.....	399,540	479,448	4,374,813
29	Do.....	do.....	199,810	230,550	2,068,802
30	Oceanic & Oriental Navigation Co.....	do.....	169,740	169,740	1,711,545
31	Do.....	do.....	210,960	210,960	2,109,600
32	American Line Steamship Corp.....	Apr. 1, 1929	370,208	418,496	4,120,576
33	South Atlantic S. S. Co. of Delaware.....	Jan. 1, 1929	364,353	350,055	3,529,615
34	Pacific Argentine-Brazil Line.....	do.....	320,679	303,922	3,042,584
35	Mississippi Shipping Co.....	July 1, 1930	.....	872,984	7,994,236
36	Tacoma Oriental Steamship Co.....	Aug. 1, 1929	.....	427,227	3,924,247
37	Panama Mail Steamship Co.....	July 1, 1930	318,706	1,043,744	9,076,032
38	Grace Steamship Co.....	do.....	.....	270,300	2,709,000
39	United Fruit Co.....	do.....	.....	778,632	7,101,700
40	Do.....	Mar. 21, 1933	.....	742,872	7,042,998
41	Do.....	Mar. 21, 1933	.....	605,904	5,352,152
42	United States Lines.....	Mar. 13, 1933	.....	2,233,464	20,935,516
43	Do.....	Mar. 1, 1931	.....	1,753,008	17,411,232
44	Do.....	Apr. 24, 1930	202,462	1,231,048	11,043,584
45	Tampa Inter-Ocean Steamship Co.....	July 1, 1930	.....	528,360	4,938,847
46	Roosevelt Steamship Co.....	July 1, 1931	.....	1,275,144	12,751,440
47	American West African Line.....	July 1, 1930	.....	145,980	1,441,452
48	Oceanic & Oriental Navigation Co.....	do.....	.....	396,667	3,509,040
49	Do.....	do.....	.....	418,626	3,957,906
50	Eastern Steamship Lines.....	May 1, 1932	.....	308,620	3,086,200
	Total.....		13,066,441	30,804,386	282,426,400

¹ The estimated amounts to be paid for the fiscal year ended June 30, 1933, are used because in that year the 41 contracts included in the table will all have reached their approximate maximum outlay per year.

PENDING CONTRACTS

Besides the 41 services for which ocean-mail contracts under the 1928 act had been let prior to June 30, 1931, there were several which were being operated for the account of the United States Shipping Board. Two of these services, the Mobile Oceanic Line and the American Diamond Line, had already been certified by the Post Office Department to the Shipping Board as essential.

The contract proposed for the Mobile Oceanic Line, east Gulf ports to United Kingdom and continental European ports, contemplated the complete reconstruction of 10 vessels now a part of that company's fleet, increasing their speed to 13 knots and providing refrigerating facilities. It is estimated that the contract will represent an outlay by the Post Office Department of approximately \$8,300,000. The contract contemplated for the American Diamond Line's service, North Atlantic ports to Antwerp and Rotterdam, will

require the construction of five class 5 vessels and will entail an outlay of some \$11,000,000 by the Post Office Department.

In addition to these two services, for which advertisements had been issued inviting bids, there were others for which Post Office contract proposals were pending on June 30, 1931. One of these was the proposal of the Gulf-Pacific Redwood Line for mail-contract service from Puget Sound to Tampico, Mexico. This service had been certified by the Postmaster General, and the advertisements were being prepared. The contract contemplated will require the construction of three vessels and the reconstruction of two and will cost the Post Office Department about \$3,880,000 in mail pay.

RESULTS OF 1928 ENACTMENT

In discussing the activities of the Post Office Department in a national radio address the Postmaster General, to whose jurisdiction is allocated the responsibility of administering ocean mail contracts, stated:²⁷

In 1928 Congress passed a law the purpose of which is to restore our merchant marine to a footing of equality with the commercial fleets of the other great maritime nations. This law, which is known as the Jones-White Act, authorized Government loans to American shipping companies for the construction of fast and modern ships, and it empowered the Post Office Department to enter into long-term contracts with such companies for carrying the mail on important trade routes, the compensation to be based, not upon the volume of mail carried, but upon the size and speed of the vessels used and the length of the route served.

This, of course, is ship subsidy, the purpose of which is to compensate American shipowners for three things: First, the much higher costs of ship construction in this country, by comparison with construction costs in foreign shipyards; second, the higher wages of American seamen; and, third, the subsidies which other nations provide for their own vessels. The direct object of the subsidy paid by our Government to American shipowners is, in other words, to equalize the costs of constructing and operating merchant ships between American and foreign operators, so that ships of the United States can compete for both cargo and passengers on substantially equal terms with other maritime nations. * * *

Under the provisions of the Jones-White Act, the Post Office Department has so far awarded 41 contracts for ocean-mail service on trade routes from American ports. These contracts provide compensation at mileage rates for the transportation of the mails, but they also require the shipping companies to build a large number of new vessels to be placed in service on the respective trade routes. The fleet to be launched under this program will consist of about a hundred fast cargo and passenger ships, the equal of any vessels afloat under foreign flags. It will aggregate about 900,000 gross tons and will cost the shipping companies approximately \$300,000,000. It is being built in American shipyards, by American labor, out of American materials. Twenty-four vessels have been completed under this program and are already in service, while 24 more are on the ways at various shipyards.

During the fiscal year ended June 30, 1930, the department paid out on ocean-mail contracts under the Jones-White Act the sum of \$13,000,000. During the current fiscal year, its ocean-mail payments will reach about \$19,000,000; they will amount to about \$23,000,000 in the fiscal year 1932. Ultimately, the annual payments on ocean-mail contracts will reach a sum not less than \$30,000,000 a year. The aggregate mail pay for the 10-year term covered by the existing 41 contracts will amount to about \$280,000,000.*

²⁷ Postmaster General W. F. Brown, June 6, 1931.

CONSTRUCTION-LOAN FUND

Section 11 of the merchant marine act of 1920 authorized the Shipping Board to set aside during a 5-year period certain funds (not to exceed \$25,000,000) derived from revenues from sales or from securities taken for deferred payments on sales, such funds to be known as a construction-loan fund. On June 6, 1924, Congress enacted amendatory legislation in respect of the administration of this fund, extended the original 5-year period for another five years, and prescribed interest rates of $5\frac{1}{4}$ per cent for any period during which a vessel on which a loan had been advanced might be inactive or under construction and of $4\frac{1}{2}$ per cent during the employment of the vessel in the foreign trade. The benefits of the fund were further extended to the reconditioning of vessels built in the United States and to construction in navy yards as well as in privately-owned shipyards.

By a law of March 4, 1927, the 5-year limit upon the building up of the fund was removed, the authorized amount increased to \$125,000,000, and the fund made revolving. The loan limit under the first two legislative acts was placed at not to exceed two-thirds of the cost of the vessel.

Section 302 of the merchant marine act of 1928 authorizes a further increase in the maximum amount of the construction-loan fund, it being provided that through credits or appropriations the total sum of the fund may be extended to \$250,000,000.

LOAN TERMS

Period of loan.—Loans may be authorized for a period of 20 years. The principal is payable in equal annual payments prescribed by the instruments, unless repayable within 2 years, or the principal may be repaid at any time upon 30 days' written notice to the board.

Rates of interest.—Annual interest rates as originally provided in the 1928 act were: Not less than $5\frac{1}{4}$ per cent on inactive vessels or vessels exclusively operated in the coastwise trade; for vessels in the foreign trade the rate to be the lowest rate of yield to the nearest one-eighth of 1 per cent of any Government obligation bearing a date of issue subsequent to April 6, 1917, except postal-savings bonds, and outstanding at the time the loan was made by the board. The Secretary of the Treasury certifies these rates to the board.

As of February 2, 1931, the foregoing provisions were modified to provide that during any period in which the vessels are operated exclusively in coastwise trade or are inactive the rate of interest shall be fixed by the board, but at not less than $5\frac{1}{4}$ per cent per annum. "During the period in which a vessel is being constructed, equipped, reconditioned, remodeled, or improved and/or during any period in which such a vessel is operated in foreign trade the rate shall be as fixed by the board, but provided, however, that on all contracts hereinafter entered into the interest rates shall be not less than $3\frac{1}{2}$ per cent per annum."

If a vessel securing the benefits of a construction loan be operated exclusively and under enrollment in the coastwise and/or intercoastal trade for more than three months in any calendar year, the board collects the difference between the low rate of interest charged and

5¼ per cent per annum during the period of construction, equipment, reconditioning, remodeling, or improvement.

Loan limit.—Loans may not be authorized for more than 75 per cent of the cost of construction or reconditioning of vessels, the board taking as security a first mortgage on the vessels under the ship-mortgage provisions of the act of 1920. An insurance policy on the vessel in favor of the board is also required.

LOANS AUTHORIZED

Under provisions of the several acts creating the construction-loan fund the Shipping Board authorized, between May 22, 1923, and June 30, 1931, loans to the aggregate of \$145,131,165. The construction of 56 new vessels of 584,310 gross tons had been undertaken, and 19 vessels of 157,407 gross tons had been reconditioned or converted with the aid of the construction loans.

Interest rates charged on vessels in the foreign trade vary from 4¼ to 5¼ per cent for the loans authorized previous to the passage of the 1928 act; for those authorized under the 1928 act before the amendment of February 2, 1931, some interest rates as low as one-fourth of 1 per cent have been charged, although generally above 2½ per cent. Loans authorized subsequent to February 2, 1931, are at the rate of 3½ per cent for vessels engaged in the foreign trade.

Table 15 summarizes all loans made from the construction-loan fund prior to June 30, 1931, noting the borrower, the name of the vessel, type, gross tonnage, cost to the owner, and amount of loan. The table shows the loans approved prior to the act of 1928 and those approved subsequently.

TABLE 15.—LOANS MADE FROM CONSTRUCTION-LOAN FUND TO JUNE 30, 1931
LOANS AUTHORIZED PRIOR TO MAY 22, 1928

Borrower	Name of vessel	Type of vessel	Gross tonnage	Cost to owner	Amount of loan
NEW VESSELS					
American Line Steamship Corporation.	California. 1928	P. and C. ¹	20,325	\$5,948,837	\$2,866,500
Do.	Virginia. 1928	do	20,773	6,791,511	3,309,000
✓ Cherokee Seminole Steamship Corporation.	Algonquin. 1926	do	5,945	1,924,345	952,500
✓ Do.	Cherokee. 1925	do	5,896	1,964,151	1,309,000
✓ Do.	Seminole. 1925	do	5,896	1,964,517	1,309,000
✓ Coamo Steamship Corporation	Coamo. 1925	do	7,057	2,494,954	1,462,500
✓ Eastern Steamship Lines	Boston. 1924	do	4,989	1,953,603	912,500
✓ Do.	New York. 1924	do	4,989	1,888,065	912,500
✓ General Motorship Corporation ²	Cleveland (ex. Twin Ports). 1923	Motor barge	1,460	403,648	200,000
✓ Do ¹	Detroit (ex. Twin Cities). 1923	do	1,460	404,622	200,000
✓ Robt. E. Lee Steamship Co.	Robt. E. Lee. 1925	P. and C. ¹	5,184	1,697,930	1,000,000
New York & Miami Steamship Corporation.	Iroquois. 1927	do	6,209	2,394,749	1,197,000
Do.	Shawnee. 1927	do	6,209	2,398,929	1,199,000
Nova Scotia Steamship Corporation.	Yarmouth. 1927	do	5,043	2,016,056	900,000
Do.	Evangeline. 1927	do	5,043	1,861,829	900,000
Total, new vessels.			106,478	36,067,816	18,629,500

¹ Combined passenger-and-cargo vessels.

² Loan made to Minnesota Atlantic Transit Co.; vessels sold October, 1930.

TABLE 15.—LOANS MADE FROM CONSTRUCTION-LOAN FUND TO JUNE 30, 1931—CON.
LOANS AUTHORIZED SUBSEQUENT TO JONES-WHITE ACT, APPROVED MAY 22, 1928

Borrower	Name of vessel	Type of vessel	Gross tonnage	Cost to owner	Amount of loan
NEW VESSELS					
Agwi Navigation Co.....	Morro Castle 1920	P. and C. 1	11,520	\$4,772,197	\$3,422,182
Do.....	Oriente 1920	do	11,520	4,577,189	3,431,840
American Line Steamship Corporation.	Pennsylvania 1923	do	20,526	6,587,226	4,768,000
American South African Line.	City of New York 1930	do	8,272	1,863,524	1,350,000
Coamo Steamship Corporation.	Borinquen 1927	do	7,114	2,616,419	1,979,810
Dollar Steamship Lines (Inc.)	President Hoover 1927	do	23,000	7,583,333	5,687,500
Do.....	President Coolidge 1927	do	23,000	7,583,333	5,687,500
Eastern Steamship Lines (Inc.)	Hull 350 (St. John) 1921	do	5,500	3,107,480	2,330,610
Do.....	Hull 351 (Acadia) 1922	do	5,500	3,107,480	2,330,610
Export Steamship Corporation.	Excalibur 1920	do	9,359	2,308,338	1,725,000
Do.....	Exochorda 1921	do	9,359	2,308,818	1,725,000
Do.....	Exeter 1921	do	9,359	2,317,648	1,725,000
Do.....	Exambion 1921	do	9,359	2,300,000	1,725,000
Grace Steamship Corporation.	Santa Clara 1922	do	9,640	3,449,267	2,454,750
Do.....	Hull 123 (Santa Lucia) 1923	do	11,500	4,115,019	3,071,264
Do.....	Hull 124 (Santa Elena) 1923	do	11,500	4,115,019	3,071,264
Motor Tankship Corporation.	Pacific Sun 1922	Motor tanker	9,096	1,681,250	1,260,937
Do.....	Chester Sun 1920	do	9,096	1,681,250	1,260,938
Do.....	Western Sun 1920	do	9,100	1,681,250	1,260,937
Do.....	Eastern Sun 1920	do	9,100	1,681,250	1,260,938
Do.....	Northern Sun 1920	do	8,864	1,681,250	1,260,937
Do.....	Southern Sun 1920	do	8,893	1,687,500	1,265,625
Do.....	Hull 133 1921	do	8,900	1,687,500	1,265,625
Do.....	Hull 134 1921	do	8,900	1,687,500	1,265,625
Do.....	Hull 135 1921	do	8,900	1,687,500	1,265,625
Do.....	Hull 136 1921	do	8,900	1,687,500	1,265,625
North Atlantic Steamship Corporation.	Hull 405 (Manhattan) 1924	P. and C. 1	30,500	10,500,000	7,875,000
Oceanic Steamship Co.....	Hull 1440 (Mariposa) 1921	do	18,500	7,800,000	5,850,000
Do.....	Hull 1441 (Montevideo) 1921	do	18,500	7,800,000	5,850,000
Do.....	Hull 1447 (Lurline) 1921	do	18,500	7,850,000	5,887,500
Panama Mail Steamship Co.	Hull 121 (Santa Rosa) 1921	do	11,500	4,115,019	3,071,264
Do.....	Hull 122 (Santa Paula) 1921	do	11,500	4,115,019	3,071,264
Tide Water Associated Transportation Corporation.	Tide Water 1921	Motor tanker	8,777	1,743,939	1,301,025
Do.....	Tide Water Associated 1920	do	8,777	1,746,439	1,301,025
Transatlantic Steamship Corporation. Washington	Hull 406 1923	P. and C. 1	30,500	10,500,000	7,875,000
United Mail Steamship Co.	Hull 344 (Talamanca) 1921	do	7,500	3,525,000	2,568,750
Do.....	Hull 345 (Segovia) 1921	do	7,500	3,525,000	2,568,750
Do.....	Hull 346 (Chiriqui) 1921	do	7,500	3,525,000	2,568,750
Do.....	Hull 1444 (Antigua) 1921	do	7,500	3,525,000	2,568,750
Do.....	Hull 1445 (Quiriqua) 1921	do	7,500	3,525,000	2,568,750
Do.....	Hull 1446 (Veraqua) 1921	do	7,500	3,525,000	2,568,750
Total, new vessels.....			477,832	156,876,457	116,612,720
RECONDITIONED OR CONVERTED VESSELS					
American Tankers Corporation.	Ulysses 1920	Tanker	10,804	581,220	422,155
Baltimore Mail Steamship Co.	Archer 1921	P. and C. 1	8,424	1,767,770	1,308,000
Do.....	Eclipse 1921	do	8,424	1,767,770	1,308,000
Do.....	Independence 1921	do	8,424	1,767,770	1,308,000
Do.....	City of Baltimore (ex. Steadfast) 1921	do	8,424	1,767,770	1,308,000
Do.....	Victorious 1921	do	8,424	1,767,770	1,308,000
Bulk Transportation Co.	H. F. DeBardleben 1923	Bulk cargo	5,020	545,776	396,750
Dollar Steamship Line.	President Adams 1922	P. and C. 1	10,516	468,990	300,000
Do.....	President Garfield 1922	do	10,485	900,064	225,000
Do.....	President Harrison 1922	do	10,504	306,447	225,000
Dollar Steamship Lines (Inc.)	President Fillmore 1920	do	15,575	844,849	580,000
Do.....	President Johnson 1920	do	15,543	604,697	420,000
Export Steamship Corporation.	Exilona 1922	do	5,839	100,170	74,250
Do.....	Exarch 1920	do	5,839	106,945	74,250
Do.....	Exelsior 1920	do	5,847	99,333	74,250

1 Combined passenger and cargo vessels.

2 Vessels under construction. Cost is estimated.

4 Reconditioning or conversion not yet completed. Cost is estimated.

TABLE 15.—LOANS MADE FROM CONSTRUCTION-LOAN FUND TO JUNE 30, 1931—Con.
LOANS AUTHORIZED SUBSEQUENT TO MAY 22, 1928

Borrower	Name of vessel	Type of vessel	Gross tonnage	Cost to owner	Amount of loan
RECONDITIONED OR CONVERTED VESSELS—continued					
Mississippi Shipping Co.....	Schoodic ¹ 1931	P. and C.1.	4,932	\$220,000	\$150,000
Do.....	Salvation Lass ¹ 1931	do	4,985	220,000	150,000
Strachan's Southern Steamship Co.	Floridian 1919	Refrigerated cargo.	4,697	174,108	124,115
Do.....	Georgian 1929	do	4,691	180,970	133,175
Total, reconditioned or converted vessels.			157,407	13,590,119	9,888,945

RECAPITULATION

	Gross tonnage	Cost to owner	Amount of loan
Loans authorized prior to Jones-White act, 15 new vessels.....	106,478	\$36,067,816	\$18,629,500
Loans authorized subsequent to Jones-White act:			
41 new vessels.....	477,832	156,876,457	116,612,720
19 reconditioned or converted vessels.....	157,407	13,590,119	9,888,945
	635,239	170,466,576	126,501,665
Grand total, 75 vessels.....	741,717	206,534,392	145,131,165

¹ Combined passenger and cargo vessels.

² Reconditioning or conversion not yet completed. Cost is estimated.

NAVIGATION BOUNTIES

NAVIGATION BOUNTY BILL OF 1922

A committee appointed by the Shipping Board to review the merchant marine act of 1920 and to suggest amendments and improvements completed its work in June, 1922. Its draft of an amendatory act was reviewed by the committees of the House of Representatives and of the Senate and introduced on June 14, 1922. In form it closely resembled the Hanna-Payne subsidy legislation introduced in Congress in 1898 upon the conclusion of peace with Spain.

The navigation bounty bill of 1922 was introduced at the time when the steel and coal industries of the United States had attained a development far surpassing that elsewhere in the world, when the output of American shipyards had just been larger than the world's pre-war output, and when there were more cargo boats than trade could possibly employ even at great loss. All the conditions which navigation-bounty legislation formerly had undertaken to meet were lacking in the United States in 1922; some of the conditions were the reverse of those which in other days had prompted bounties. It was maintained that the Shipping Board fleet ought to be "balanced," which meant that there were too many and too small cargo vessels and not enough ships of the types and speed which the World War had just shown to be valuable for military and naval subsidiary service.

The general navigation bounty proposed was only one-half the rate of 1 cent per gross ton per 100 nautical miles which had been allowed in the earlier Hanna-Payne bill. The rate of 1 cent was allowed in the bill of 1922 only in the case of a steamer of at least

16 knots speed, or in the case of a small steamer of 1,500 to 2,500 gross tons of the types built on the Great Lakes or of the wooden steamers, to which the same bounty was allowed as to a slow cargo boat of 5,000 gross tons.

The argument for the general navigation bounty was that it would permit private shipowners to operate at a profit vessels which the Shipping Board could operate only at a loss, and thus enable the Government to dispose of its fleet. Furthermore, as in the passage of the merchant marine act of 1920, there was considerable sentiment in favor of the continuance of the policy of Government ownership and operation of the fleet. The merchant marine bill, 1922, passed the House of Representatives, but did not come to a vote in the Senate before Congress adjourned on March 4, 1923.

PREFERENCES AND RESTRICTIONS

RESERVATION OF THE COASTING TRADE

As already has been said, the terms "coastal trade," "coasting trade," "intercoastal trade," and "cabotage," when applied to shipping protectionism, are the somewhat synonymous variations in terminology customarily employed in referring to trade between or within ports of a nation's sovereignty. In international maritime law a much more restricted meaning is attached.

The principle has assumed new importance since the World War wrought territorial changes by which former coastal-trade territories of foreign countries have been broken up into many foreign-trade zones.

ADOPTION OF RESERVATION PRINCIPLE

In the United States the principle of restricting the coastal trade to United States vessels was not adopted by statute until March 1, 1817. Prior to the statutory provision the coastal trade had in fact been restricted to United States vessels by the discriminatory tonnage tax provided on July 20, 1789, by which Congress applied a tax of 6 cents per register ton on American built and owned vessels and 50 cents on foreign built and owned vessels. United States vessels in the coasting trade had to pay this tax once in the year. Foreign vessels had to pay the tax whenever they entered a United States port. This required a foreign vessel to pay the full tonnage tax several times in a coastal voyage that included several ports, and in effect barred foreign ships from the coastal trade.

After the Spanish-American War Congress, by the acts of 1898 and 1899, greatly extended the scope of the American meaning of the words "coasting trade" and their application by bringing navigation between the United States and Porto Rico, Hawaii, and the Philippines within the coasting trade law restricting trade to American ships, and the United States Supreme Court (182 U. S. 392) sustained the law, remarking that it was intended "to place Porto Rico substantially upon the coast of the United States."

Restriction of trade between the United States and the Philippines to vessels of United States registry was repealed before it ever took effect, but the merchant marine act of 1920 (other phases of which have been discussed at pp. 39 and 63) provided that the law restricting to American vessels the trade between American ports should

be extended to the island territories and possessions of the United States wherever it was not already applicable. This section was to come into force on February 1, 1922, or by order of the President after the lapse of the time needed to establish adequate shipping facilities. The Panama Canal Zone was not covered by the act, which was made applicable to trade with the islands of Guam and Tutuila in the Samoan group. The provision is not to be applicable to trade between the United States and the Philippines until the President, after investigation of the local needs and conditions, by proclamation declares that an adequate shipping service has been established and fixes the date when the act is to take effect. The President thus far has not issued this proclamation.

INTERPRETATIONS OF "COASTING TRADE"

The late Eugene Tyler Chamberlain, former United States commissioner of navigation, gave the following analysis of the subject of restriction of coasting trade:

The subject is intricate because with the growth in extent of nations and of empires, and with changes in their policies, the words "coasting trade" have acquired a meaning beyond their narrow geographical sense when states and ships were small. The enlarged meaning of the words has naturally been carried, at least by implication, into treaties by which the relations of nations with one another are determined. Originally, for example, the United States consisted of a narrow fringe along the Atlantic seaboard. With successive accretions of territory the seacoast of the United States has been extended along the Gulf of Mexico and on the Pacific Ocean, and the coasting trade law, reserving to vessels of the United States the trade between the ports of the country, has been applied to each new territory and the coast in turn as the United States assumed permanent sovereignty over it. When Alaska was acquired from Russia by the treaty of March 30, 1867, the Congress, without question, by the act of July 27, 1868, applied the navigation laws and the coasting trade law to the new Territory, although both on the Pacific coast and on the mainland Alaska was separated from the United States by the width of Canada.

THE BRITISH VIEW

*The present British view of the meaning of the words "coasting trade" is set forth as follows in Oppenheim's *Treatise on International Law* (vol. 1, pp. 606-610):

"The meaning of the term 'coasting trade' in commercial treaties must not be confounded with its meaning in international law generally. The meaning of the term in international law becomes apparent through its synonym, cabotage—that is, navigation from cape to cape along the coast combined with trading between the ports of the coast concerned without going out into the open sea. Therefore, trade between Marseille and Nice, between Calais and Havre, between London and Liverpool, and between Dublin and Belfast is coasting trade, but trade between Marseille and Havre and between London and Dublin is not. It is a universally recognized rule of international law that every littoral state can exclude foreign merchantmen from the cabotage within its maritime belt. Cabotage is the contrast to the oversea carrying trade, and has nothing to do with the question of free trade from or to a port on the coast to or from a port abroad. This question is one of commercial policy, and international law does not prevent a state from restricting to vessels of its subjects the export from or the import to its ports or from allowing such export or import under certain conditions only.

"There is no doubt that originally the meaning of 'coasting trade' in commercial treaties was identical with its meaning in international law generally, but there is likewise no doubt that * * * now a much more extended meaning [is given] to the term as used in commercial treaties. Thus, France distinguishes between cabotage petit and grand; whereas petit cabotage is coasting trade between ports in the same sea, grand cabotage is coasting trade between a

French port situated in the Atlantic Ocean and a French port situated in the Mediterranean, and—according to a statute of September 21, 1793—both grand and petit cabotage are exclusively reserved for French vessels. Thus, further, the United States of America has always considered trade between one of her ports in the Atlantic Ocean and one in the Pacific to be coasting trade and has exclusively reserved it for vessels of her own subjects; she considers such trade coasting trade even when the carriage takes place not exclusively by sea around Cape Horn, but partly by sea and partly by land through the Isthmus of Panama.

“Great Britain has taken up a similar attitude. Section 2 of the navigation act of 1849 (12 and 13 Vict., ch. 29) enacted ‘that no goods or passengers shall be carried coastwise from one part of the United Kingdom to another, or from the Isle of Man to the United Kingdom, except in British ships,’ and thereby declared trade between a port of England or Scotland and a port of Ireland or the Isle of Man to be coasting trade exclusively reserved for British ships in spite of the fact that the open sea flows between these ports. And although the navigation act of 1849 is no longer in force, and this country now does admit foreign ships to its coasting trade, it nevertheless still considers all trade between one port of the United Kingdom and another to be coasting trade, as becomes apparent from section 140 of the customs laws consolidation act of July 24, 1876 (39 and 40 Vict., ch. 36). Again, Germany declared by a statute of May 22, 1881, coasting trade to be trade between any two German ports, and reserved it for German vessels, although vessels of such States can be admitted as on their part admit German vessels to their own coasting trade. Thus trade between Koenigsberg on the Baltic and Hamburg on the North Sea is coasting trade.

Extension of original meaning

“These instances are sufficient to demonstrate that an extension of the original meaning of ‘coasting trade’ has really taken place and has found general recognition. A great many commercial treaties have been concluded between such countries as established that extension of meaning and others, and these commercial treaties no doubt make use of the term ‘coasting trade’ in this, its extended meaning. It must therefore be maintained that the term ‘coasting trade’ or ‘cabotage,’ as used in commercial treaties, has acquired the following meaning: Sea trade between any two ports of the same country, whether on the same coast or different coasts, provided always that the different coasts are all of them the coasts of one and the same country as a political and geographical unit in contradistinction to the coasts of colonial dependencies of such country.

“In spite of this established extension of the term ‘coasting trade,’ it did not include colonial trade until nearly the end of the nineteenth century. Indeed, when Russia, by ukase of 1897, enacted that trade between any of her ports should be considered coasting trade and be reserved for Russian vessels, this did not comprise a further extension of the conception of coasting trade. The reason is that Russia, although her territory extends over different parts of the globe, is a political and geographical unit, and there is one stretch of territory only between St. Petersburg and Vladivostok. But when, in 1898 and 1899, the United States of America declared trade between any of her ports and those of Porto Rico, the Philippines, and the Hawaiian Islands to be coasting trade and consequently reserved it exclusively for American vessels, the distinction between coasting trade and oversea or colonial trade fell to the ground. It is submitted that this American extension of the conception of coasting trade as used in her commercial treaties before 1898 is inadmissible and contains a violation of the treaty rights of the other contracting parties. Should these parties consent to the American extension of the meaning of coasting trade, and should other countries follow the American lead and apply the term indiscriminately to trade along their coasts and to their colonial trade, the meaning of ‘coasting trade’ would then become trade between any two ports which are under the sovereignty of the same state. The distinction between coasting trade and colonial trade would then become void, and the last trace of the synonymy between coasting trade and cabotage would have disappeared.”

The divergence in American and British points of view has thus been ably and concisely stated:³⁸

³⁸ H. C. Calvin and E. G. Stuart: *The Merchant Shipping Industry*, p. 212.

The difference between the British and the American points of view on the maritime coasting trade is a good illustration of how economic factors modify official views. Great Britain has little to lose by opening her coasting trade to foreign vessels; the United States has a great deal to lose by such action. As a consequence, Great Britain, with ships all over the world, would like to see the opportunity given to these ships to engage in any trade they may find. The United States, with comparatively few ships in foreign waters, does not care especially about the opportunity for its ships to engage in the limited coasting trade of other countries. The restriction of our large coastwise and intercoastal trade for American ships, however, is perhaps the greatest aid ever given by Congress to our shipping.

Quoting Mr. Chamberlain further:

JURISDICTION OVER TERMINALS

But the words "coasting trade" derive their import not solely from geographical facts now or at the time of ratification of treaties; jurisdiction over terminal ports and its implications also determine their meaning. Some of the steps by which these implications in the words "coasting trade" have superseded the narrow geographical meaning conveyed originally by the word "cabotage," or trade from headland to headland, have been set forth in the quotation above. Indeed, so subordinate is the geographical meaning that nations generally recognize that a ship is not engaged in the coasting trade or cabotage while employed along a coast line under one jurisdiction in discharging or taking on cargo at successive ports if the cargo comes from or is for a foreign port and the trade accordingly is a matter involving the cooperation of two national jurisdictions. Such considerations impelled the United States to apply its system of legislation for the trade between ports on its coasts to its successive acquisitions of territory, including Alaska, which, like Hawaii or Porto Rico, is a political unit with the United States, but surely is no more a geographical unit with it than is either of those islands. The policy was followed under the form of an application of the coasting trade law, of which the commercial and political essence was and is the recognized right to reserve it to national ships. In 1898 the coast of Hawaii was as much a coast of the United States for commercial purposes as was the coast of California; trade originating in California and destined for Hawaii was as much trade between coasts of the United States as was trade originating in California and destined for Alaska or for the State of Washington, and was not improperly in 1900 described and regulated as coasting trade.

For 200 years, including the generation which witnessed the birth of the Republics of the United States of America and of France, Great Britain and Holland had bestowed the trade with all countries lying beyond the Cape of Good Hope and the Strait of Magellan on two great monopolies of their own subjects, the British and Dutch East India Companies, respectively. The restraint put by England on trade with its colonies was one of the causes of the American Revolution, and up to the nineteenth century Great Britain reserved its trade with all its colonies to British ships. As indicated in the extract from Oppenheim, the "open sea" ceased to be an obstacle from the geographical point of view to the extension of the British "coasting trade" before the use of iron and export of coal made Great Britain the world's shipbuilder and its political and commercial interest in trade restrictions gave place in the middle of the nineteenth century to a policy of trade expansion which required it to favor a reduction to the minimum of trades which nations reserved to their own ships between their own coasts. Different nations have not only taken different views of the coasting and colonial trade, but the same nations at different times in their history have taken different views. Jurisdiction over ports is the one durable element through all the mutations in meaning of the words "coasting trade."

THE JAPANESE PROPOSAL

The Geneva conference³⁰ was confronted with these and other questions when it undertook to secure agreement upon a definition of the term "maritime

³⁰The Conference on Communications and Transit, held under the auspices of the League of Nations at Geneva from Nov. 15 to Dec. 9, 1923, at which maritime coasting trade was one of the subjects discussed. See the Geneva Conference and Ocean Shipping, Trade Information Bulletin No. 202, issued by the Bureau of Foreign and Domestic Commerce, Washington.

coasting trade." The Japanese delegation early in the proceedings proposed, if "maritime coasting trade" were not defined by the conference, that the following article be incorporated in the statute on the international régime of maritime ports:

"The transport of passengers or goods between two ports placed under the sovereignty or authority of the same State which is effected across the ocean and which may in practice be assimilated to ocean navigation shall not be regarded as maritime coasting trade within the meaning of the present statute."

This Japanese proposition would have committed unreservedly the Geneva conference to the present British view of the meaning of the phrase "maritime coasting trade" and would in effect have been such a protest as is called for in the quotation above from Oppenheim, a recognized British authority, against the American understanding and application of the phrase.

POSITION OF THE GENEVA CONFERENCE

The committee on maritime ports did not, however, report favorably the Japanese proposition.

The Geneva Conference, then, did not change the previous situation. M. Paul de Rousiers, representing France, had stated at the outset that "It will be very difficult for certain States represented at the conference to sign the convention if a definition is adopted which changes the meaning of the term 'coasting trade' as it was understood in the various countries. Even supposing that all the States represented at the conference signed the convention, it must be remembered that there are States which are not represented at the conference."

The Geneva conference went no further than formally to recognize the anxiety of its committee to apply equality of treatment without regard to flag to all forms of overseas navigation, and expressed a wish that all States, including those not members of the League of Nations, should refrain from "an abusive extension of the scope of the maritime coasting trade," leaving the scope of that trade undefined as before.

EXEMPTION FROM FISCAL CHARGES

WAR-PROFITS TAXES

Two provisions in the merchant marine act of 1920 specially exempted shipowners from certain taxation for 10 years from 1920, the exemption in each case being conditioned on the shipowner's agreement to invest the amount of the exemption received, or more, in the building of new ships.

For the purpose of fixing a shipowner's war-profits and excess-profits taxes the act allowed him to deduct from his net income the profits he made during the year from his ships engaged in foreign trade, but he must invest in building new ships in the United States an amount equal to his tax exemption, and at least two-thirds of the cost of the new ships must be met from the shipowner's ordinary funds. Since 1920 American shipowners have not made war profits and excess profits from their ships in foreign trade, so this tax exemption did not strengthen the position of the American merchant marine in foreign trade.

For the purpose of determining his income tax a shipowner was authorized to deduct from his taxable income the profits he derived from the sale of an American vessel built before January 1, 1914, provided he invested an amount equal to his tax exemption in building new American ships of a type approved by the Shipping Board.

PREFERENTIAL RAILWAY RATES

General supervision of rates, fares, and charges on American railroads in interstate and foreign commerce is vested in the Interstate Commerce Commission, which is empowered in its discretion and on examination to fix joint rates for the export and import trade, of which the railroad proportion may be lower than the railroad rate to or from a terminal seaport. The merchant marine act of 1920 stipulates that such favorable railroad rates for the export or import trade shall be allowed only when the ocean transportation is by an American vessel. If the Shipping Board is satisfied, however, that American ships do not afford adequate facilities for the trade between an American port and a foreign port, it certifies the fact to the Interstate Commerce Commission, which may then allow lower joint rail rates when the ocean transportation is effected by foreign ships. Soon after passage of the law the board made such a certification, and the act was suspended by the commission.

In February, 1924, the Shipping Board certified to the Interstate Commerce Commission that adequate shipping facilities under United States registry then existed in respect of certain trade routes and certain commodities, and as a result the suspension at that time in force was removed by an order of the Interstate Commerce Commission. The trade routes included the United Kingdom and the Continent in the range from Bordeaux north, the east coast of Asia and the Pacific Islands, Australia and the East India Islands, and the ports of Central and South America; the commodities comprised all commodities except wheat.

The Shipping Board and many owners favored enforcement of the measure; United States foreign-trade interests, seaports, and railways serving such ports opposed enforcement. The Shipping Board's contention was that United States ships would profit by the diversion of cargo from or to inland destination to national ships; the opposition contended that sufficient national tonnage was not available to handle the traffic properly. Seaports and railroads protested the enforcement of the law in the belief that it would result in diversion of traffic to certain large ports in the North Atlantic and to Canadian ports.

As a result the Shipping Board withdrew its certification in regard to adequacy of tonnage of United States registry and the Interstate Commerce Commission canceled its order for application of the section.

PRINCIPAL FOREIGN MARITIME COUNTRIES

FRANCE

ECONOMIC DEVELOPMENT AND SHIPPING

The experience of the Government of France in dealing with its national shipping is more nearly complete than that of any other government. France has granted aid to its shipping more extensively and for a longer period than has any other country, and the history of this policy has given rise to more conflicting opinion than may be found in the maritime history of other nations.

Critics of the French system have asserted that the experience of France with construction and navigation bounties did not increase the total tonnage during the earlier years of development of the steam-driven fleet; that ships sailed without cargoes in order to obtain navigation bounties; and that France descended rather than ascended in world position during the period of 1881-1918, when navigation bounties were in force.

These assertions are based upon facts and may be accepted as true. There is, however, no possible way of determining what effect contemporary conditions would have exerted upon French commercial shipping had there been no subsidy policy in force. So far as isolated instances of abuse of the system are concerned, such abuse, while popularly spectacular, did not involve public funds in serious amount and serves merely as an example of the difficulty of safeguarding expenditure of public funds in instances where the extent of the outlay is measured by vessel performance; increase or decrease in tonnage has been given more weight than the suitability of such tonnage to properly serve French commerce. The abuse lay in taking advantage of technical flaws in existing law.

No conclusions can be drawn on the basis of economic results alone when considering a national industry which is so closely allied with the political and military policies of a nation as is commercial shipping in France. The French Government for a century or more has urged a French merchant marine as a national necessity and during this period has extended various forms of aid to that end. The support of the French merchant marine is distinctly a part of the national policy. A representative school of economic thought, in France, as elsewhere, regards the French merchant marine as a national industry somewhat artificially sustained. But whether the policy followed by France be criticized or indorsed, one fact is clear—that the majority of those who speak for the French people are well convinced that a national marine should be maintained and that it has been an advantage to France in the past to do so.

The present discussion will be directed toward some of the public problems considered by the Government of France in determining

public policy; what objective has been sought and what justification for such policy may be found in the results. The treatment of the various types of Government aid, such as postal contract services, navigation and construction bounties, shipping finance, and others, will be considered separately and chronologically.

CONDITIONS AFFECTING WATER TRAFFIC

NATURAL FACTORS

COAST LINE

More than half of the borders of France are on the sea. On the north the English Channel leads to the Atlantic Ocean and the North Sea; on the west lie the Bay of Biscay and the open Atlantic; on the south is the Mediterranean. Access to the world by water is a problem that has never caused concern in France. On this coastline, nearly 2,000 miles in length, are 37 ports of varying importance and development.

The extent of the coasts and the large number of ports aided the development of French sea-borne traffic during sailing-ship days. Shortening a sailing voyage by a few hundred miles was important to this class of vessel in that it gave a definite advantage in competing with vessels of its own type. Further, sailing vessels were of relatively small cargo capacity, were easily filled, could enter ports of limited depth of water, required only modest port equipment, could conveniently call at several ports to complete loading and discharging, and consequently fitted admirably into the distribution scheme for French products. French exports, produced in small quantities in many interior districts, found their way to the sea-board to this type of ship through the large number of way ports. Such exports were not of great bulk but were rather of the parcel type of freight, of high value, and capable of bearing relatively high freight charges. French exports have traditionally been of higher value and smaller bulk than the exports of other nations.

OCEAN PORTS

Modern industrial development has led to concentration of effort and to combination of power. With respect to maritime ports, the extension of railway services into the interior and the possibility of long hauls have brought about concentration of cargo in fewer ports, which are equipped to handle the modern type of sea-borne commerce as well as to accommodate the large modern ocean carrier employed in its movement. Havre, Cherbourg, Boulogne, Dunkirk, Rouen, and Calais, ranking among the first eight ports of France in vessel entrances and clearances, are all within a stretch of 200 miles on the English Channel.

All French ports except autonomous ports are under the general supervision of the Ministry of Public Works. The director of each port is an engineer appointed by the ministry. The system has resulted in centralization which now is in process of change by a scheme for decentralization and for the creation of autonomous ports, sanctioned by law in 1912 and 1920. Under the new system a port

may become a legal entity, managed by a board of 21 persons, representative of (1) the chamber of commerce of the port, (2) the arrondissement, (3) the municipality, and (4) users and workers. The head officer and administrator and engineers are appointed and paid by the ministry. Bordeaux and Havre were the only seaports to have adopted autonomous status by 1931.

Proposed port-improvement program

In July, 1927, the Ministry of Public Works proposed a ports program providing for improvements in 16 of a total of 37 ports at a total cost of 1,578,700,000 francs (\$61,885,000 with the franc at \$0.0392)¹ of which sum 749,000,000 francs (\$29,360,800) was to be provided by the State and 829,700,000 francs (\$32,524,200) was to be raised by the port authorities of the autonomous ports. The basis of the proposal was that harbor works and channel depths in certain French ports were inadequate because of the larger size of vessels since the war.

So far as traffic through French ports is concerned, the ministry stated that up to 1913 cargo traffic increased at the rate of 4 or 5 per cent annually but since that year has remained stationary or has even receded. In the meanwhile vessel-tonnage clearances have risen from 43,500,000 tons to 110,700,000 tons and a rapid increase of traffic was predicted. These statements were advanced by the ministry in support of its recommendations for a port-development program.

In order to accommodate the last of a group of vessels to be built under contract with the French Government by the Compagnie Générale Transatlantique, a new entrance (in the form of a combination graving dock and entrance) to the Penhôt Basin at St. Nazaire is to be built.

POLITICAL FACTORS

The colonial interests of France are second only to those of Great Britain. In Asia an area of 325,000 square miles with a population of 23,000,000, in Africa an area of 5,290,000 square miles with a population of 35,000,000, in America an area of 33,000 square miles with a population of 500,000, and in Oceania an area of 9,000 square miles with a population of 79,000 give France a colonial empire (if mandates and protectorates be included) of upwards of 6,000,000 square miles and 60,000,000 inhabitants.² The population figures refer principally to native races. Except in North Africa, where approximately 1,000,000 French Europeans are domiciled, French colonial populations lack the large element of national stock that is present in the British Empire.

The importance of colonial sea communication centers on the North African littoral, then in Oceania and the East. The French possessions in America have no importance in ocean transportation; maintenance of services to Brazil and the River Plate regions, where growing French communities and markets for French products are

¹ Throughout this entire study the annual average exchange rates for the different currencies as given in Mood's "Handbook of Foreign Currency and Exchange" (issued by the Bureau of Foreign and Domestic Commerce, Washington, as Trade Promotion Series No. 102) have been employed in practically every instance.

² *Annuaire Statistique*, 1929, p. 367.

to be found, is considered far more important. Excepting Senegal, the central and west African colonies still remain potential rather than real assets. The northern African colonies are the most valuable to France, and they have a political importance greater than their present economic importance. Quite apart from future economic plans and development, political necessity demands adequate and secure transportation across the Mediterranean for troop movement. In February, 1930, the French North African military force consisted of 2,870 officers and 69,565 men.

French colonies to-day therefore affect the merchant-marine situation primarily in the direction of requirements of communication and military transport. Intensive development of colonial resources, particularly if these are diverted as imports to the home country, will naturally act as a stimulus to French shipping.

ECONOMIC FACTORS

France is predominantly an agricultural country. Agricultural products are protected by a high tariff and consumed mostly in France. Approximately 23 per cent of the total population is classed as agricultural, while of the occupied classes 41 per cent is classed as agricultural. Nevertheless, imports of foodstuffs into France were 5,073,000 metric tons in 1926, 6,606,000 tons in 1927, 5,826,000 tons in 1928, 6,712,000 tons in 1929, and 6,374,000 tons in 1930. During these same years French exports of foodstuffs amounted respectively to 1,423,000 tons, 1,436,000 tons, 1,682,000 tons, 1,513,000 tons, and 2,143,000 tons.

French industrial expansion since the World War may have significant bearing upon the merchant-marine situation. The gain in weight of French exports from 25,000,000 metric tons to 36,579,000 metric tons during the period 1923-1930 is accounted for almost entirely by raw materials such as ores, iron, and steel, which increased from 20,487,000 tons to 29,630,000, and by manufactures, which increased from 3,100,000 tons to 4,805,000. Larger industrial production, the character thereof, and its movement to overseas markets will directly affect French commercial shipping.

Wide divergence between value and weight has characterized French exports and imports. Inward movement of large-bulk, low-value products and an outward movement of small-bulk, high-value cargo have produced an unbalanced cargo movement. A foreign trade wherein textiles lead in value, and wherein wool and wool waste come next after iron and steel in value, but where pearls and precious stones together form a greater commercial export unit than these metals, is one in which direct shipping faces difficulties. The effect of the newer and heavier type of export cargo from the mines and industries of Alsace and Lorraine, as distinguished from the traditional luxury and high-value products, will tend to balance the imports, which have greatly exceeded the exports in volume.

WATER-BORNE COMMERCE

PARTICIPATION OF FRENCH FLEET

In 1913 the participation of French vessels in the French sea-borne foreign trade was about 31 per cent of the total, with 22.5 per cent of the imports and 56.3 per cent of the exports credited to

French vessels. In 1929 French vessels carried 41 per cent of the sea-borne foreign commerce 37.4 per cent of the imports, and 57.6 per cent of the exports.

Imports by sea in 1913 were 30,192,912 metric tons; of this cargo, French vessels carried 6,810,518 tons. Imports in 1929 were 37,160,551 metric tons, of which French vessels carried 13,932,620 tons. The increased percentage of imports carried in French vessels, therefore, translated into tonnage, is 7,122,102 tons. This increase, however, is greatly affected by the coal trade with the United Kingdom, Belgium, the Netherlands, and Germany. In 1913, 13,000,000 tons of coal were imported by sea, of which French ships carried about 2,000,000 tons and foreign ships 11,000,000 tons. During 1922 and 1923 French ships carried approximately one-half of the sea-borne coal imports; in 1924 this was increased to two-thirds of the total, and in 1925 to six-sevenths; in 1926 French vessels carried 5,800,000 tons of coal imports by sea, while foreign vessels carried 4,042,000 tons.³

Table 16 compares the pre-war and postwar foreign commerce of France in so far as it relates to the merchant marine and the employment thereof in this traffic.

TABLE 16.—FRENCH FOREIGN COMMERCE, BY METHOD OF CARRIAGE

Classification	1913	1927	1929
IMPORTS			
In French vessels.....	<i>Metric tons</i> 6,810,518	<i>Metric tons</i> 12,904,341	<i>Metric tons</i> 13,932,620
In vessels of same nationality as origin of cargo (direct trade).....	12,073,981	9,360,099	13,449,124
Others (indirect trade).....	11,308,413	8,639,819	9,778,807
Total in foreign vessels.....	23,382,394	17,999,918	23,227,931
Total imports by sea.....	30,192,912	30,904,259	37,160,551
Total imports by land.....	18,431,751	22,573,854	27,331,699
Total imports.....	48,624,663	53,478,113	64,492,250
EXPORTS			
In French vessels.....	5,552,751	4,931,508	5,591,719
In vessels of same nationality as destination of cargo (direct trade).....	2,691,929	3,456,904	2,811,004
Others (indirect trade).....	1,615,949	1,064,492	1,300,993
Total in foreign vessels.....	4,307,878	4,541,396	4,111,997
Total exports by sea.....	9,860,629	9,472,904	9,703,716
Total exports by land.....	16,326,201	32,433,675	34,512,973
Total exports.....	26,186,830	41,906,579	44,216,689
TOTAL FOREIGN TRADE			
In French vessels.....	12,363,269	17,635,849	19,524,339
In vessels of same nationality as origin or destination of cargo (direct trade).....	14,765,910	12,817,003	16,260,128
Others (indirect trade).....	12,924,362	9,724,311	11,079,800
Total in foreign vessels.....	27,690,272	22,541,314	27,339,928
Total imports and exports by sea.....	40,053,541	40,377,163	46,864,287
Total imports and exports by land.....	34,757,953	55,007,529	61,844,672
Total imports and exports by sea and land.....	74,811,493	95,384,692	108,708,959

³ Comité Central des Armateurs de France, Circular No. 1373, p. 696.

Of a trade in 1929 of approximately 8,420,000 tons with the French colonies and protectorates, French vessels carried 4,312,000 tons of imports and 2,909,000 tons of exports, a proportion of 81 per cent of the total imports and 97 per cent of the total exports.

CHANGING TYPE OF FRENCH FOREIGN TRADE

Further development of the exportation of heavy raw materials, tools, and metal products may affect shipping. So far French shipping has progressed rather on the basis of a steady increase in the share of French vessels in the heavy import movement than on any increase of volume of trade as a whole.

The general trend of industrial expansion in relation to foreign trade is illustrated in Table 17, classifying such trade for the period 1913-1930. The table shows doubled manufactured exports but with a small total volume, and greatly increased raw-material exports with a large total volume. (The figures for 1913, 1927, and 1929 are not in exact agreement with those given in Table 16; in both tables, however, French official statistics have been used.)

TABLE 17.—FRENCH FOREIGN COMMERCE, BY CLASS OF MERCHANDISE

Group	1913	1923	1927	1928	1929	1930
IMPORTS						
	<i>Metric tons</i>	<i>Metric tons</i>	<i>Metric tons</i>	<i>Metric tons</i>	<i>Metric tons</i>	<i>Metric tons</i>
Food products.....	5,511,900	5,890,400	6,608,400	5,828,600	6,712,100	6,373,600
Raw materials.....	37,180,700	47,702,500	41,625,800	41,775,400	50,630,300	52,043,800
Manufactures.....	1,547,700	1,471,800	1,137,600	1,503,300	2,118,400	2,341,600
Total imports.....	44,240,300	54,864,700	49,369,800	49,105,300	59,460,800	60,759,000
EXPORTS						
Food products.....	1,459,500	1,313,000	1,436,700	1,682,500	1,613,200	2,143,200
Raw materials.....	18,301,200	20,487,400	31,270,600	34,125,400	33,033,100	29,630,800
Manufactures.....	2,313,800	3,069,300	5,287,000	5,272,700	5,360,100	4,805,300
Total exports.....	22,074,500	24,901,700	37,994,300	41,080,600	39,906,400	36,579,300

¹ Includes 32,000 tons of parcel-post exports not distributed by groups.

GOVERNMENT ORGANIZATION IN RESPECT OF SHIPPING

The French Government functions as a republic, having executive, legislative, and judicial departments under a constitution adopted in 1875. The ministry is the active force in dealing with and promoting public affairs. The Government is centralized, and, while it does not enter into detailed control of industrial life generally, it does participate in the transportation and communication system of the nation to some extent. Thus, for example, one-fourth of the railroad mileage of France is owned by the Government through the taking over of properties that had been commercial failures. This mileage is directly operated by the Government. The other railroad systems are operated under state control by private organizations and are national property which, upon expiration of their franchises, between 1950 and 1960, will revert to the state. The French Government has been directly interested in the railways since 1842.

GOVERNMENT THROUGH MINISTRY

Government by ministries composed mainly of members of the two branches of Parliament and dependent upon a majority in Parliament for their continued existence engenders a certain cooperation between the administrative and legislative branches of the Government and makes possible the formulation and enactment of policies which have been carefully considered by those competent to advise upon them.

The most significant recent change in the general position of the French merchant marine is the raising of the industry to consideration by a separate ministry. In the reorganization of the French Government and the formation of a new cabinet on November 2, 1929, all matters pertaining to ports, fisheries, and the merchant marine were placed under a ministry of merchant marine, with Louis Rollin, deputy from Paris, as minister in charge. This realignment of the relation of the Government to commercial shipping had been urged for several years in both shipping and parliamentary circles.

Prior to the World War the subdepartment of the French Government in charge of the merchant marine was incorporated in the Ministry of Commerce. During the war period all commercial activities were subjugated to that of orderly, centrally controlled transportation. In the postwar distribution of Government functions commercial shipping was assigned to the Ministry of Public Works. The then Premier, M. Tardieu, former Minister of Public Works, was the official who, on behalf of the Government, signed the present postal-subsidization contracts.

By a decree of February 10, 1920, the war functions were transferred to the subdepartment for the merchant marine under the supervision of the Under Secretary for the Merchant Marine. By decrees of January 7, 1921, and February 21, 1922, a reorganization of the subdepartment was effected, and the various responsibilities were assigned to bureaus and services; but, as stated above, they have now been grouped under a separate ministry.

GUIDANCE THROUGH COMMISSIONS AND COUNCILS

French official procedure in respect of merchant shipping has been largely guided by commissions. In France commissions are all-powerful. They are representative of all parties and enjoy public confidence, and their recommendations usually are adopted as far as national resources permit.

This principle of coordinated action extends from the highest executive power to the local authorities who administer the details of law and regulation. The principle was incorporated in the promotion of commercial shipping and port development through the appointment of three higher councils cooperating with the Ministry of Public Works in all proposals relating to construction, improvement, maintenance, and operation of seaports and sea communications. The members of these councils receive no compensation for their service to the nation.

PROVISION OF MARINE PERSONNEL RESERVE

The merchant marine of France is manned by Frenchmen. Crews of most commercial-vessels of other nations contain men of all nationalities; but Frenchmen usually serve on French vessels, which fact may be attributed to the influence of the Inscription Maritime, the traditional organization of French maritime personnel. The close association of the French Government with this organization, and through it with the merchant marine, during a long period of time is a unique example of governmental promotion of merchant shipping, national defense, and maritime development through the establishment of a professionally trained personnel reserve.

The Inscription Maritime ("maritime enrollment") of France was instituted in 1663 by Colbert, who guided the financial, commercial, and maritime policies of Louis XIV. The purposes of its establishment, following hard on the adoption of the navigation acts of England (which had as their declared purpose the training of seagoing personnel for the British merchant marine at a time when the merchantman went armed as a potential fighting ship), was the establishment of maritime power through essential personnel. The institution is remarkable in that, while it was almost feudal in its inception, it has survived the shifting currents of national political life. Thus, despite changes in the form of the French Government from an absolute monarchy to a republic, then again to an empire, and finally, since 1871, again to a republic, the Inscription Maritime has endured for more than two and a half centuries in spirit and, except in details, in substantially the form in which Colbert conceived it.⁴

COMPENSATION FOR MERITORIOUS PERSONAL SERVICE

Trade Commissioner Louis Hall, Paris, reports the passage on February 9, 1930, of a law authorizing the Government to award compensation for particular merit to persons in the service of the French merchant marine and to those French citizens rendering distinguished service in promoting the interests of French shipping and the development of French ports. This official recognition will take on an honorary character, in the form of appointments to or promotions within the Legion of Honor. For this purpose the following annual appointments or promotions will be made available:

250 Croix de Chevalier (new appointments to the Legion of Honor).

100 promotions to the rank of officer in the Legion of Honor.

10 promotions to the rank of commander.

BUDGET FOR NEW MINISTRY OF MERCHANT MARINE

An idea of the relationship between the Ministry of Merchant Marine and maritime matters as set up since the cabinet reorganization of November 2, 1929, may be gained from the details of the 1931-32 budget estimates. Besides 172,143,500 francs (\$6,748,025 at the stabilized rate of \$0.0392 to the franc) for inland waterways

⁴For a more recently organized maritime society see discussion of the Maritime League of France in Gratien Candace's work on the French Merchant Marine.

and canals and 182,192,201 francs (\$7,141,934) for port works, the budget provides 448,574,033 francs (\$17,584,102) for the Ministry of Merchant Marine and Fisheries proper. The details are presented in Table 18.

TABLE 18. — FRENCH BUDGET ESTIMATES FOR 1931-32, MINISTRY OF MERCHANT MARINE AND FISHERIES

Allocation	Amount	
	Francs	Equiva- lent in United States currency ¹
Salaries of the Minister; salaries of the various personnel in the service of the central administration.....	3,060,180	\$119,959
Supplementary work, aid and other grants to various personnel in the service of the central administration.....	158,640	6,218
Cost of replacing and transporting personnel; traveling expenses.....	795,000	31,164
Material for central administration.....	1,535,600	60,196
Administrators for the Inscription Maritime.....	2,930,328	114,869
Administrative personnel for the Inscription Maritime.....	4,709,941	184,630
Personnel of national maritime navigation schools.....	876,135	34,344
Personnel for the inspection of navigation.....	839,855	32,922
Personnel for the supervision of fisheries and control of fishing establishments.....	1,860,026	72,912
Syndics for seamen, maritime guards, and agents.....	4,762,339	184,332
Special leave for long periods to employees of the merchant marine.....	120,000	4,704
Grants, funds, and various expenses relative to the personnel of the services of the merchant marine.....	199,850	7,834
Purchases, construction, moving and repair of fixtures; purchases and repair of furniture; heat and light; telephone subscription and tolls; telegraph messages; postage.....	763,600	29,933
Indemnities and various expenses for the service of technical supervision in the ports.....	69,300	2,717
Operation of maritime instruction, and school equipment.....	736,000	28,616
Encouragement for professional maritime instruction, funds and subsidies.....	240,000	9,408
Application of law of April 17, 1907, on the security of maritime navigation.....	245,000	9,604
Contribution to various outlays concerning security of maritime navigation and hygiene on board vessels.....	965,000	37,828
Expenses resulting from the application of the seamen's act (code du travail maritime) and the disciplinary and penal code (code disciplinaire et penal) of the merchant marine.....	7,095,000	278,124
Subsidies to various professional maritime organizations.....	676,000	26,499
Seamen's compensation; encouragement of professional and amateur contests in interest of maritime navigation.....	90,000	3,528
Various material and expenses for fisheries and maritime matters.....	1,811,339	71,004
Protection of fisheries.....	120,000	4,704
Fishing fleet and for fish transport.....	1,000	39
Fishing ports.....	3,880,000	152,096
Subventions to the mutual insurance companies against loss of fishing material and to the mutual maritime credit funds.....	3,300,000	129,360
Expenses for the administration and control of the regional treasuries of the mutual maritime credit organizations.....	20,000	784
Contribution to the work undertaken by the scientific and technical office of maritime fisheries.....	223,000	8,742
Allocation of interest established by the law of August 1, 1928, on maritime credits.....	15,000,000	588,000
Salaries of the Government commissioners with the concessionary navigation companies of public-utility character.....	58,840	2,307
Operation of maritime postal services and services of public-utility character between the Continent and Corsica.....	15,000,000	588,000
Operation of maritime postal service in the Far East, Australia, New Caledonia, the east coast of Africa, and the eastern Mediterranean.....	118,000,000	4,625,600
Subvention to the maritime service to New York.....	4,000,000	156,800
Subvention to the maritime service between France and the Antilles and Central America.....	9,500,000	372,400
Operation of maritime postal services and service of public-utility character between France and Brazil and the River Plate.....	49,645,000	1,946,084
Subvention to the mariner's pension fund.....	193,166,000	7,572,108
Allowances for quarters.....	955,100	37,440
Portion contributed to the civilian personnel of the State for family allowances.....	1,201,960	47,117
Court expenses incurred before the administrative civil and commerce courts; reparations and damages.....	10,000	392
Reimbursable advances to employees relative to pensions.....	20,000	784
Total.....	448,574,033	17,584,102

¹ Converted at the stabilized rate of \$0.0392 to the franc.

Source: Budget General de L'Exercice 1931-32.

THE FRENCH COMMERCIAL FLEET

GROWTH OF THE MERCHANT MARINE

In tonnage of vessels of 100 gross tons and above the French commercial fleet doubled during the period 1896-1913, increasing proportionally in both the power-driven and the sailing categories. The power-driven fleet again doubled in the period 1913-1931 (Lloyd's Register figures), but the sailing tonnage dropped to a relatively unimportant total. The development of the fleet in relationship to the various bounty laws from 1895 and to the effect of the World War from 1913 on is shown in the following table:

TABLE 19.—GROWTH OF THE FRENCH COMMERCIAL FLEET

July 1—	Total commercial fleet ¹	Power-driven vessels ¹	Sailing vessels ¹	July 1—	Total commercial fleet ¹	Power-driven vessels ¹	Sailing vessels ¹
	Gross tons	Gross tons	Gross tons		Gross tons	Gross tons	Gross tons
1896.....	1,129,575	630,785	498,790	1925.....	3,511,984	3,319,645	192,339
1900.....	1,350,362	1,052,193	288,369	1928.....	8,490,606	8,324,397	166,209
1905.....	1,728,033	1,260,973	467,065	1927.....	3,469,980	3,361,679	108,301
1910.....	1,882,280	1,448,172	434,108	1928.....	3,344,465	3,255,832	88,633
1913.....	2,201,164	1,793,310	407,854	1929.....	3,378,663	3,302,684	75,979
1914.....	2,319,439	1,922,286	397,152	1930.....	3,530,879	3,470,691	60,288
1915.....	2,285,728	1,909,609	376,119	1931.....	3,566,227	3,513,179	53,048
1920.....	3,245,194	2,963,229	281,965				

¹ Vessels of 100 gross tons and upwards.

Source: Lloyd's Register of Shipping.

PRINCIPAL FRENCH SHIPOWNERS

Operation or control of the greater part of the French commercial fleet is exercised through centralized control of three leading ownership groups. The Compagnie Générale Transatlantique is the largest owner, with 631,550 gross tons as of July 1, 1931. When its stock was placed on the New York market in 1928 the company stated that it had interests in 181,000 tons besides its owned tonnage, giving it at that time a probable total control of about 723,723 gross tons. In March, 1928, this company established a working agreement with the Chargeurs Reunis (now owning 310,982 gross tons), which also works closely with the Compagnie de Navigation Sud-Atlantique (now owning 71,431 gross tons). The third group is the Mediterranean company, Messageries Maritimes, with 159,647 gross tons, with which the Chargeurs has a working agreement by and through which these two companies carry practically all the exports to Indo-China. The Messageries also manages the Société des Services Contractuels (the Government contractor for the Far East subsidized service), which company since 1920 has placed in service about 30 new liners and now owns 359,212 gross tons. The boards of directors of the Compagnie Marseillaise de Navigation, Société de Navigation à Vapeur France-Indo-Chine, and the Société Les Armateurs Français are interlocking with the major groups. The latter three companies own 58,769 gross tons, 16,089 gross tons, and 55,784 gross tons, respectively.

It appears, therefore, that the entire 2,000,000 tons of shipping in the French long-voyage trades is generally under a centrally controlled direction, permitting common action. These owners also have some interest in shipbuilding yards.

The 1928 French budget report stated that in 1926, "as regards South America, all the French companies, united by an agreement, transported 96 per cent of French exports and 89 per cent of French imports."

THE WAR AND THE MERCHANT MARINE

The relationship between the French Government and merchant shipping during the World War in respect of Government ownership and costs was discussed in the 1923 edition of Government Aid to Merchant Shipping. The statements which follow are taken from that report.

The French merchant marine in June, 1914, aggregated 1,576 ships of 2,319,400 gross tons, of which 1,003 of 1,918,500 gross tons were steel steamers; in June, 1922, it comprised 2,094 ships of 3,846,000 gross tons, of which 1,552 of 3,303,000 gross tons were steel steamers. This increase had been attained in spite of a French loss by submarines and mines of 916,000 gross tons during the war. French shipbuilding, which almost wholly ceased during the war when French shipyards were devoted to repair work on French and Allied ships and to ordnance and munitions work, during the nine years, 1914 to 1922, turned out only 736,000 gross tons, while during the nine years before the war the output was 788,000 gross tons.

BEGINNING OF GOVERNMENT OWNERSHIP

France began its control of merchant shipping under the general power of military requisition accorded by the act of July 3, 1877, requisitioning ships on bare-boat charter and itself providing the crews, but it was soon compelled to resort to time charters. The early months of 1918, when the Allied Maritime Transport Council was organized, comprised the most critical period of the war from the viewpoint of ocean transportation. By the act of February 10, 1918, France requisitioned its entire merchant marine, and by the later laws of March 25 and April 20 assumed the financial responsibility for its operations. A credit of 240,000,000 francs was voted as a revolving fund for maritime transportation, to which 110,000,000 francs was added for the charter of 30 former German steamers, aggregating about 150,000 gross tons, which the Brazilian Government had seized on its entry into the war.

The act of March 25, 1918, also provided a credit of 500,000,000 francs for the purchase and construction of ships on the Government's account, which was increased by 250,000,000 francs under the law of December 31, 1918, and by 100,000,000 francs by the law of March 31, 1919—the total credit for the purchase and construction of ships for the Government's account thus being 850,000,000 francs.

SALE OF GOVERNMENT FLEET

At the end of the war the French Government had under requisition the fleet of private shipowners and also a fleet purchased or building with public funds for the Government, a situation simi-

lar to that of the United States and of Great Britain. It also had 38 former German steamers under charter from the Brazilian Government. To this was added after the armistice a proportional share in the operation of former German ships, for purposes defined by the armistice and its renewals, and still later a share of ex-German ships awarded as reparations for losses by submarine warfare. In December, 1918, a law was passed providing that by December 31, 1919, the accounts of the ships requisitioned from private owners should be liquidated and the ships restored to their owners. It was necessary later to extend the time for liquidating requisition accounts—indeed, up to January 1, 1923, considerable amounts were not determined, partly on account of litigation.

The National Assembly recognized in 1921 that the budget could no longer sustain the heavy burden imposed by the Government construction, ownership, and operation of merchant ships. It passed accordingly the act of August 9, 1921, instructing the Government to close the accounts of the Government's operation of ships by December 31, 1921, and to sell, not later than July 31, 1923, "to the best interests of the treasury," subject to the approval of the National Assembly, the Government's entire fleet. The conditions provided that in case of resale at a profit within five years the resale must be approved by the Government and the vendor must give half the profit to the State.

The act differed from the American merchant marine bill of 1920 in that it fixed a definite period of two years within which the Government's fleet should be sold. It also contained a general provision, similar in intent to some of the provisions of the American act of 1920 (generally known as the Jones bill), in that it provided a preference to ships flying the French flag for the transportation of cargoes destined for the State or for public establishments or establishments of public utility (as defined in French law) or in the case of contractors for the public service, including cargoes delivered to France by Germany in execution of the treaty of peace. These provisions were applicable also to French colonies and protectorates.

This act was passed by the Chamber of Deputies by a vote of 429 to 144, the minority being generally in favor of the continued Government ownership and operation of merchant ships. In the Senate there was no opposition to the bill. The sale of the Government merchant fleet had been urged as early as February, 1920, by the Armateurs de France, an association of French owners of steam and sail tonnage established for many years for the general promotion of French maritime interests and including the ownership of 2,700,000 gross tons, or 80 per cent of the French merchant fleet. (At that time the American Steamship Owners' Association was urging similar views before committees of the United States Congress.)

The fleet to be disposed of under the act of August 9, 1921, consisted of 425 ships of various types, aggregating 1,250,000 dead-weight tons, and comprised steel steamers built in France after 1918 and mainly after 1919; American wooden steamers delivered after 1918; ex-German steamers built mostly before 1914 and delivered as reparations; and of sailing vessels, tugs, and barges of various origins. Some ex-German steamers had already been disposed of as compensation for war losses, and some steamers were still under construction in French yards in 1923.

The progress of the liquidation up to the beginning of 1923 was covered by a report of 115 pages to the Chamber of Deputies by M. Morinaud, vice chairman of its committee on the merchant marine, recommending the approval of the contracts made by the Government for the sale of the ships. The Government's committee administering the act decided at the beginning of September, 1921, to give preference, first, to owners whose ships had been sunk by the enemy and whose losses had not already been made good by the Government, and, second, to owners who would agree to operate the Government ships they purchased in trade between France and its colonies. It also fixed as a base price 400 francs (at the time approximately \$28) per dead-weight ton of a new steamer of 6,000 tons dead weight, which was reached by a study of the prices brought by ships in the world's markets during the summer of 1921. On this basis the market value of the units of the fleet was computed according to age, general condition, type, and other factors. The committee reserved to French mail lines the passenger and mixed passenger-and-cargo steamers to be disposed of, and to French owners the steel cargo steamers, barges, and tugs, with the understanding that vessels of these types not purchased by French owners and the remaining types of vessels were open to foreign purchase.

CONDITIONS OF SALE

Bids were opened on October 10, 1921, and, out of 45 in all, 16 were accepted, the remainder being rejected mainly because they were not accompanied by financial guaranties of the contractor's ability to carry out the contract. The aim of the Government had been to dispose of the fleet as far as possible en bloc, so that unserviceable ships should not be left on its hands after the better types had been sold. The shipowners' association cooperated to promote this result by organizing a company of 40 of its members, which offered to purchase 385,000 tons of the better types of steamers and also 280,000 tons of the wooden steamers, barges, and tugs. The company was allotted 280,000 tons of the steel ships and 280,000 tons of the wooden steamers and miscellaneous craft—in all, 560,000 dead-weight tons, or half the fleet to be disposed of.

The contract for the steel ships, signed November 23, 1921, provided for purchase for cash or on credit. In cash sales 30 per cent was payable on execution of the bill of sale and 70 per cent on delivery of the ship. Sales on credit were to be met by annual cash payments for 8 years in the case of ships 20 years old, 10 years in the case of ships from 10 to 20 years old, and 14 years in the case of ships under 10 years old, the purchaser to pay annually to the Government 6 per cent interest on the sum still due, to give the Government a first mortgage on the ship, and to keep the ship insured at 10 per cent above its value. In credit sales it was also required that there should be a periodic review of the original base price, 400 francs per dead-weight ton for a new ship, and on this review, based on the market at the time, the base price could be raised to not over 700 francs or lowered to not under 300 francs, 10 per cent of the difference being added to or subtracted from the annual payments.

Purchasers of ships on credit deposited 30 per cent of the first annual payment on execution of the bill of sale and 70 per cent on delivery of the ship.

The purchasing company established a general guaranty fund of 4 per cent of the credits allowed by the Government to all its members as assurance against default of any one. In case of the sale of a ship to foreigners with Government approval the company agreed to turn over 60 per cent of the profit to the Government and, if the Government requested, to invest the proceeds of the sale in the purchase of foreign ships of special types indicated by the Government for transfer to the French flag. The company also undertook, in agreement with the Government, that its ships would perform all transportation in the public interest in conformity with the normal trade of the ships, especially in trade with French colonies. Finally the company affirmed its purpose with the ships it bought from the Government to assure in preference to all other services those specially related to French ports, to French colonies, and to all trades useful for the development of French commerce.

SALE OF WOODEN SHIPS

The supplementary contract between the Government and the company organized by the Armateurs de France by which the Government disposed of its fleet of wooden steamers and miscellaneous craft was signed June 26, 1922. It included 96 wooden steamers, steam schooners, and barges with boilers, 34 reinforced concrete barges, 4 steel barges, and 25 tugs of 23,656 horsepower—in all, 159 vessels of about 290,000 tons dead weight. The care of these 159 vessels was costing the Government 300,000 francs a month, or about \$4 a day, for each vessel, and the contracting company agreed to assume the care within 30 days. It guaranteed to the Government 6,000,000 francs as a minimum of proceeds of the sale and agreed that the Government should receive all proceeds up to 10,000,000 francs. The company was to receive 3 per cent commission on its sales. If the proceeds exceeded 10,000,000 francs, the state was to receive 80 per cent of an excess of 3,000,000 francs or less, the company 20 per cent; if the excess was between 3,000,000 francs and 5,000,000 francs, the state was to receive 70 per cent, the company 30 per cent; any excess above 5,000,000 francs to be divided equally. In the following tabulation the Government's receipts are given at the minimum 6,000,000 francs, but reports up to May, 1923, showed that 73 vessels of 149,000 dead-weight tons of this fleet, or about one-half the tonnage, had been sold by the guaranteeing company to private owners for 3,575,000 francs.

TABLE 20.—DETAILS OF SALES OF FRENCH GOVERNMENT MERCHANT FLEET

Type of vessel	Vessels	Tonnage	Price
SOLD			
Steel steamers:	<i>Number</i>	<i>Dead-weight tons</i>	<i>Francs</i>
Government.....	81	258,027	61,310,863
Ex-German.....	41	234,152	36,537,251
Total steel steamers.....	122	492,179	97,848,134
Steel barges.....	21	35,365	2,747,751
Tugs.....	19	110,540	2,793,350
Steel sail, ex-German.....	27	91,933	3,917,641
Wooden steamers.....	12	26,300	2,017,170
Blanket sale:			
Steel barges.....	4	5,765	} 6,000,000
Tugs.....	25	123,565	
Wooden steamers.....	96	223,609	
Cement barges.....	34	36,618	
Total blanket sale.....	159	265,983	6,000,000
Total sold.....	360	2 911,760	115,324,046
TO BE SOLD			
Steel steamers:			
Government.....	10	41,700	1 17,924,960
Ex-German.....	2	27,750	1 1,985,200
Steel barges.....	2	1,950	1 122,000
Steel sail, ex-German.....	5	12,039	1 803,000
Total.....	19	83,439	20,835,160
Grand total.....	379	2 995,199	136,159,206

¹ Horsepower.² Exclusive of tugs.³ Estimated.

GOVERNMENT'S LOSS ON MERCHANT SHIPPING

The book value of the Government's ships built or bought considered above is computed at about 1,076,000,000 francs, as under the system of accounting fixed by law insurance and deduction for depreciation are included in costs of operation. The book value of the ex-German ships included above is estimated at 43,243,091 francs, the amount for which they were sold, as the Reparations Commission had not finally determined the amount to be charged to the Government on this account.

The ships considered above do not include 14 cargo steamers of 79,900 dead-weight tons and 10 passenger steamers of 57,140 tons—in all, 24 of 137,040 tons—which were delivered late in 1922 or were to be delivered in the first half of 1923. The cost of construction of these ships less their market value when completed was estimated at approximately 60,000,000 francs. Upon completion they were chartered to French owners, partly for carrying the mails between France and French territory and protectorates in northern Africa pending final arrangements for their sale.

The figures do not include the expense to the Government of replacing 21 steamers of 67,000 gross tons (80,000 dead-weight tons) which while under Government charter during the last eight months of the war were torpedoed and which the Government was under contract to replace. The total net loss to the Government on this account was computed at nearly 145,000,000 francs.

Including all these items, the cost to the Government for the purchase and construction of ships stood at over 1,300,000,000 francs and the proceeds from the sale of ships to be applied to the cost were about 136,000,000 francs, showing a loss of nearly 1,200,000,000 francs under this head. The following statement gives details, to which is added the loss on operations:

	Francs
Book value of Government vessels.....	1, 076, 449, 403
Construction under way, less market value of ships when completed.....	59, 756, 000
Book value of ex-German ships covered.....	43, 243, 091
Replacements of torpedoed ships.....	144, 808, 000
	<hr/>
	1, 324, 256, 494
Deduct proceeds of sale of ships.....	136, 159, 206
	<hr/>
Loss on purchase and construction.....	1, 188, 097, 288
Loss to September 30, 1922, on operation.....	608, 600, 000
	<hr/>
Total loss.....	1, 796, 697, 288

The operations accounts were balanced every quarter, and the balances carried forward under three separate heads, the total deficit under all three on September 30, 1922, being estimated at 608,600,255 francs. The largest item was an estimated deficit of 256,562,271 francs in the account for the requisition of ships of French shipowners. This is the oldest account; and, as accounts liquidated and closed showed a loss of 351,648,703 francs, the accounts remaining to be closed were estimated to result more favorably to the Government and to reduce this loss by nearly 100,000,000 francs.

The accounts for ex-German ships showed an estimated deficit of 98,330,462 francs; and here, too, the closed accounts showed a deficit of 132,391,222 francs, so the final audit of remaining accounts was expected to reduce the deficit. Of the deficit, however, 45,137,000 francs was due from the German Government for services performed for Germany, especially during the armistice period. The deficit under the account for the Government's operation of its own fleet was estimated at 253,707,522 francs. The deficit on accounts finally closed under this head was 244,960,000 francs, which the operations remaining to be audited were expected to increase, as indicated. Sale and transfer, however, to private shipowners, French and foreign, was steadily reducing the fleet operated by the Government and, in consequence, the operating losses.

WAR-RISK INSURANCE

At the beginning of hostilities, French shipowners and commercial interests were confronted with the impossibility of securing from private insurance corporations on reasonable terms marine insurance against war risks, so the Government decided, from August, 1914, to issue in its own name marine-insurance policies. This step was taken simultaneously with Great Britain, which had prepared for it with a project for Government marine insurance early in 1914, to be available whether Britain was a belligerent or a neutral. The action of the French Government was validated by later acts of the National Assembly.

Two kinds of insurance were issued by the Government during the course of hostilities—optional and obligatory. Optional insurance, under the laws of April 10, 1915, and January 15, 1917, was issued at the request of those concerned on the hulls of Allied or neutral ships to the amount of 80 per cent of the value of the hulls agreed upon against ordinary marine casualty. Cargoes carried under the flag of France, the Allies, or neutrals were insured for their total value. Obligatory insurance, under the act of April 17, 1917, covered from that date to the end of hostilities the hulls of French ships of over 500 tons, with the exception of those that belonged to the Government or were managed directly by some Government department (mail steamers, ships requisitioned or chartered by the Government, etc.).

Administration of the Government marine insurance was intrusted by decree of August 11, 1914, to the Executive Commission on Finance and transferred August 13, 1917, to the Merchant Marine Commission, which administered the laws up to October 20, 1919. Obligatory insurance, which was in fact suspended when the Government requisitioned the entire merchant marine fleet in 1918, was resumed as ships were released from requisition. The policies in effect on October 20, 1919, of course, remained in effect until the termination of the contract of insurance.

While the laws were in operation a quarterly statement was issued to the Ministry of Finance and to the finance committees of the two chambers of the National Assembly. The central treasury held to the credit of each of these two accounts insurance premiums as well as various receipts coming from the sale of damaged merchandise, wrecks, etc. It charged itself with the payment of losses on account of wrecks and certain additional expenses, such as legal fees and judicial expenses. Losses on account of the total loss of a ship carrying obligatory insurance were paid to the insured only to the amount of three-fourths of the value agreed upon, the remaining one-fourth being set apart in a special account in the treasury to be paid to the insured only after he had replaced the lost ship, as required by the law of April 17, 1917. The budget for 1922 estimated receipts for the year at 900,000 francs and expenditures at 38,460,000 francs, of which, however, 37,000,000 francs was for the liquidation of old losses.

The entry of European governments into the field of marine insurance was not a radical step, because several of them already had had in operation for some time governmental systems of workmen's insurance, besides old-age pensions and relief for the unemployed, in which the factors of risk, joint contributions, and other elements calculated by actuarial methods were involved.

POSTAL CONTRACT SERVICES

When contracts at present in force shall have expired, the postal-subsidy and contract-service system of France will have rounded out practically a century of application in its modern form. Contract conditions and the methods by which contracts were entered into have varied with contemporary requirements, but the postal-subsidy principle—that of scheduled sailings of guaranteed regularity and

with specified equipment, under penalty provisions, in consideration of stipulated compensation or assumption of financial risk by the State—has remained undisturbed.

EARLY PACKET SERVICES

According to Jaccottey's treatise on postal legislation and operation in France,⁵ the first attempt at regular French transoceanic packet service was the establishment of a service between France and the United States immediately after the American Revolution. Regular services in the Mediterranean began much earlier—in his thesis on the maritime postal services of France, Henry Grout discusses Mediterranean services under Louis XIV in 1661.⁶ Other services of similar character were established during the following century.

TRANSATLANTIC SERVICES (PRIVATE OWNERSHIP WITH SUBSIDY)

FIRST SERVICE TO NEW YORK, 1783

After the American Revolutionary War it seemed to France that the establishment of a regular navigation line would be the best means to again fasten ties which a confraternity of arms had established between France and the new Republic of the United States. By resolutions of June 28 and July 5, 1783, the French Government decided upon the creation of regular services, and contracted for such services with a French citizen, M. Le Colteux, who undertook to make one voyage a month between Port Louis and New York. The rates for letters transported by these packets was fixed at 20 sols (sous), or \$0.20, each.

Beyond giving encouragement, the United States took no part in this undertaking; the entire outlay was borne by the French budget. Each trip of a packet cost 30,000 francs (\$5,800 at \$0.193 to the franc), or 360,000 francs annually, and produced postal receipts of 5,500 francs (\$1,060), or 66,000 francs annually, with a resultant loss to the Ministry of Marine of about 300,000 francs (\$58,000) a year.

While the usefulness of such a service was recognized, and while the wish was expressed to extend it to the French colonies, the Government nevertheless on December 14, 1786, resolved to reduce the number of voyages to the United States from 12 to 8 a year, but placed in service 12 new vessels for the Windward Islands and 4 for the islands of Mauritius and Bombon.

The expense of establishing and dispatching 24 vessels occasioned an increase in the contribution of the postal administration and higher rates of postage on letters to and from the colonies. Commercial circles in Bordeaux, Rennes, Paris, Aix, and Rouen raised energetic protests against this increase in rates and against the monopoly on colonial letters.

The result was that by a resolution of July 5, 1788, the Government discontinued the services, giving as reasons for this action the

⁵ Jaccottey, Prof. Paul: *Traite de Legislation et d'Exploitation Postales*. 1891.

⁶ Grout, Henry: *Les Services Maritimes Postaux en France*. 1908.

complaints from maritime as well as other regions, the excess of expenditures over postal revenues, and the proposal that commercial services should in the future carry out the essential communication systems.

Thus ended the first French attempt at subsidized sailing-packet services. Grout lays the blame for failure on article 2 of the law of June 28, 1783, which limited mail packets to the carriage of mails, passengers between France and America, baggage, and the necessary food supplies. They were prohibited from carrying freight, which M. Grout terms "an error of 1783 that was to be repeated in the Government-owned steam fleet in the Mediterranean in 1835."

MEXICO LINE, 1827

Various other attempts were made during the first half of the nineteenth century toward establishing trans-Atlantic communications. On August 17, 1827, the Government contracted for a period of two years with M. Gautier for a monthly service between Bordeaux and Vera Cruz by way of Martinique and Haiti. The contractor agreed to put five vessels of 200 to 300 tons in service, with sailings on the 20th of each month, and the duration of the voyages was fixed at 50 days. The subsidy was 5,000 francs per crossing.

In 1829 a new contract for four years was made with M. Balguerie. The subsidy was reduced to 7,500 francs for a complete voyage, or 90,000 francs (\$17,400) a year. The service was suspended by ministerial decision of September 19, 1832, because of quarantine measures relative to packet boats in Mexican ports.

SOUTH AMERICAN LINE, 1829

In 1829 regular packet services were established between France and South America in execution of article 24 of the treaty of commerce and navigation concluded with Brazil on June 8, 1826. Expenses were to be borne jointly by France and Brazil. A law of July 4, 1829, authorized the creation of two new packet lines from Havre to Brazil and Buenos Aires. The contract for this service was awarded on December 15, 1829, at the same time that the State proceeded to renew the contract for the Mexican line. The contractor was to employ packets of 200 to 300 tons.

Another contract, for service between France and Colombia, which was to have been awarded in May, 1830, failed of negotiation. This service was to have made one voyage every two months from Havre or Bordeaux to Cartagena by way of Martinique.

These first trials did not succeed because the subsidy (300,000 francs in 1831 for the three lines to Vera Cruz, Rio de Janeiro, and Buenos Aires) was too small and the contract period too short. The Government, which reserved the mails to the State-supported vessels, had no other object in view in granting the packet-service contracts than to allow time for the construction of the necessary equipment with which to assume the postal service with a State-owned fleet.

The Government had maintained, through its own means, a daily steamer service between Calais and Dover.

MEDITERRANEAN SERVICES (GOVERNMENT OWNERSHIP AND OPERATION)

By the provisions of the law of July 3, 1835, the Minister of Finance was granted a credit of 5,900,000 francs (\$1,140,000) for the establishment of steamer services to carry mails in the Mediterranean from France to Italy, Greece, Turkey, and Egypt.

Two lines were proposed, one from Marseille to Constantinople by way of Italian ports, Malta, Syra, Smyrna, and one from Alexandria to Athens by way of Syra, Syra thus becoming the point of intersection of the two lines. Three departures and three arrivals a month comprised the schedule.

Inasmuch as the service was to be operated under Navy officers, it was decided not to transport all classes of cargo but to confine the services to mails, passengers, and a few valuables.

REASONS FOR GOVERNMENT OPERATION

The Government gave as economic reasons for the proposal the extension of commerce and shipping and the scarcity of private bidders capable of undertaking the responsibility, due probably to inexperience with steam vessels, in contrast to the experience with such equipment of Great Britain and Austria, whose success was cited as additional evidence of the necessity for the service. It was thought, too, that the service would increase the power and prestige of France on the African coast and elsewhere in the Mediterranean; that the State-operated vessels would exercise a surveillance in the Mediterranean favorable to French interests; that it was a good way in which to train officers for the Navy; and that the vessels in the service could be so constructed as to serve as naval auxiliaries in war. Still another argument in its favor was the claim that a steam service would be a guaranty against piracy, which had existed for a long time in the Mediterranean.

Even had it been desired to have the proposed services operated by private enterprise this could not have been done,¹ for only one company had indicated its willingness to undertake the contract. This company had submitted two proposals to the investigating commission. One called for a subsidy of 1,500,000 francs (\$289,500) annually for 10 steamers as required by the Government. The State was to take the postal receipts, estimated at 400,000 francs (\$77,200), thus making a net estimated cost to the Government of 1,100,000 francs (\$212,300). The second proposal was an annual subsidy of 600,000 francs (\$115,800), the postal receipts to go to the State and the contractor to employ vessels of only 100 to 120 horsepower; the net cost to the State was estimated at 200,000 francs (\$38,600) annually. The first proposal was considered too great a burden upon the budget, while the second was thought not to offer vessel equipment commensurate with the requirements of the service.

RESULTS OF GOVERNMENT OPERATION

From a financial point of view the results of the system were unsatisfactory. Instead of an anticipated profit of 158,000 francs per year there was a deficit of over 3,000,000 francs annually, and the loss

¹ *Idem*, pp. 20-29.

during 14 years of Government operation has been placed at 37,237,900 francs (\$7,177,000). Grout states that the actual amount was more likely 50,000,000 francs.⁸

The national assembly became perturbed over this situation, and on April 18 and 19, 1849, it decided by vote that the operation of postal packet lines should be surrendered to private enterprise. A commission created by ministerial resolution of March 2, 1850, for the purpose of studying the matter proposed turning over the equipment to a private company to which should be allowed a subsidy based upon the probable difference between the necessary expenses and the presumed receipts. In conformity with these recommendations the State concluded a contract with the Messageries Nationales (see p. 102) by which this company agreed to operate the Mediterranean lines by means of a subsidy of 3,000,000 francs (\$579,000). This agreement was approved on July 8, 1851.

RETURN TO PRIVATE OPERATION WITH SUBSIDY

Thus at the end of 15 years of Government operation the transportation of mails resolved itself into the modern system of private ownership and operation with Government subsidy in various forms. This system spread itself, geographically if not chronologically, in a fanlike manner from France to New York, to Central America and the West Indies, to Brazil and the River Plate, to West Africa, to North Africa and the Mediterranean, to East Africa, to Australia and New Caledonia, and to Indo-China and Japan and the Far East.

The first important new application of the subsidy system was the taking over of the Government operations in the Mediterranean by the Compagnie des Messageries Maritimes, founded in 1851 by M. Rostand under the name of Compagnie des Services Maritimes des Messageries Nationales and later (February 28, 1853) changed to Compagnie des Services Maritimes des Messageries Imperiales. This contract provides the first use of the word "subvention" in the budget of France as referring to the present system of postal contracts, and from 1851 to 1931 appropriations for mail-contract purposes have been carried in the budget under the title "subvention," the French equivalent of "subsidy." The contracts with the Messageries company are discussed on pages 102-109.

Laws of June 17, July 1, and July 10, 1850, in a like manner transferred to a private corporation the postal service between France and Corsica, which had been operated under State management since 1841. A decree of February 2, 1855, tendered the operation of the services between Calais and Dover to the Clebsattel & Churchward Co. The service between France and Algeria, which had been rendered by the State, was intrusted to private enterprise from January 1, 1842. The same was done with respect to the trans-Atlantic service.⁹

⁸ Idem, p. 27.

⁹ In 1840 the Government had obtained from the Chamber of Deputies the credits necessary for establishing rapid communications between France and the two Americas; 28,000,000 francs (\$5,400,000) was put at the disposal of the Minister of Marine for the construction of 18 packet boats. Lines were to be formed from Havre to New York, from Bordeaux and Marseille to the Antilles and Central America, and from St. Nazaire to Brazil and the River Plate. After five years of trials it was found that the vessels built by the State were too heavy to compete in speed with the English and American packets. Only the line to the United States was therefore inaugurated, but the company operating it with equipment obtained from the State was forced to abandon the enterprise after a few months.

FAR EAST, AUSTRALIA, AND MEDITERRANEAN SERVICES

As just said, the first mail-subsvention contract entered into by the French Government was that of July 8, 1851, with the predecessor of the present Compagnie Messageries Maritimes, of Marseille. This, the largest French steamship organization in the Mediterranean, with 65 vessels of 518,859 tons,¹⁰ is charged with the important duty of providing the contract services for the French Government to the Far East, Australia, New Caledonia, East Africa, and the eastern Mediterranean.

United States capital is interested in this service to the extent of an issue of \$10,000,000 in 7 per cent bonds, which the company sold in New York in 1924. Another issue of \$11,000,000 in 6 per cent 25-year sinking-fund bonds of 1927 was offered in the Netherlands and Canada; \$5,500,000 of the Canadian share (\$9,500,000) and the entire Netherlands share (\$1,500,000) were taken in the United States market, thus providing a United States capital interest of \$17,000,000 in this French enterprise.

At the time of offering the \$10,000,000 bond issue to the American public the American underwriters made the following statement concerning the purpose of the issue:

These services are carried on under the control and guaranty of the French Government and are, like the French railways of which they are considered to be prolongation undertakings of public utility, engaged among other things in carrying French mail in both directions.

To facilitate the development of the colonies a vast program of public undertakings is under way, but the Government has, in the first place, endeavored to insure regular and rapid communication by sea between France and her colonies. This company is charged by the Government with the duty of insuring these services, and is thus called upon to contribute in an important degree to the exploitation of French colonial domains and the development of commercial exchange between France and her colonies. This is the motive which led the French Government to grant to the company the financial guaranties.

The Messageries contract now in force is a revision and prolongation of the contract of December 30, 1911, which was to expire in 1937 but which was suspended during the World War. By agreements dated December 29, 1920, and July 6, 1921, approved by law of July 28, 1921, the new contract (discussed in detail at pp. 105-109) became effective for a 25-year period ending December 31, 1947. It is a mutual profit-and-loss sharing arrangement between the Government and the concessionaire.

CONTRACT OF 1851

The original contract with the Messageries Nationales (now the Messageries Maritimes) was concluded on February 28, 1851, and approved on July 8 of that year. It was for 20 years (renewable thereafter year by year) and called for a subsidy of 3,000,000 francs (\$579,000) annually for the first 10 years, after which there was to be an annual reduction of 100,000 francs (\$19,300) until the amount was reduced to 2,000,000 francs a year at the expiration of the original contract.

The company was to select 10 to 13 of the Government-owned steamers besides those set aside by the postal administration, and also

¹⁰ Lloyd's Register, 1931-32, includes the fleet of the Société des Services Contractuels.

agreed to take over the three steamers of the Rostand company of Marseille. The Messageries organization agreed to construct five vessels of not less than 300 horsepower during the first five years of operation.

The services were to consist of three principal lines out of Marseille—one to Malta by way of the Italian coast, one to Constantinople (Istanbul), and one to Alexandria—besides a secondary line connecting Constantinople and Alexandria, a total of 315,000 miles a year.

During the Crimean War the services and subsidies were increased and the contracting company is credited with carrying 100,000 troops and 20,000 tons of war materials during the campaign.¹¹

CHANGES FOLLOWING CRIMEAN WAR

Following the Crimean War various extensions and changes were made in the services, until by 1859 the annual mileage had been increased to 560,000 and the annual subsidy to 4,776,119 francs (\$921,800).

By agreement of April 22, 1861, creating the Indo-China services, the Mediterranean and Black Sea services were continued until February 22, 1881. By agreement of June 30, 1886, approved by the law of July 7, 1887, all the services operated by the Messageries Maritimes were covered under one contract, the Mediterranean services calling for 12 and 13 knots speed. Finally, by law of July 9, 1895, the subsidy was slightly reduced, the speed was established at 13 knots, and the termination of the contract was set for July 22, 1912.

CONTRACT OF 1861

Following the expedition of 1860 which opened the ports of China to European commerce, and after the occupation of Cochinchina by France, the French Government sought to bring about regular communications between France and the Far East. A great line connecting Marseille with the most important points of India, China, and Japan appeared to be the proper means for accomplishing this. The Messageries Maritimes was the only company which was able to undertake the operation of these services without too much delay, and it obtained the concession by the agreement of April 22, 1861, approved by the law of July 3, 1861.

Under article 4 the Government was to advance the company 12,000,000 francs (\$2,316,000) in three annual payments, to provide funds with which to purchase the required vessels. This advance was to be repaid in 12 annual installments, with interest at 5 per cent. By a second agreement, of May 27, 1862, approved by the law of July 6, 1862, a further advance of 1,995,750 francs (\$385,000) was made. These advances were in line with a principle that was employed in the early practice of most countries—that of not only agreeing to subsidize liner services but also to advance funds with which the contractor could acquire the necessary equipment.

The 13,995,750 francs authorized by the laws of 1861 and 1862 was advanced to the company, 4,000,000 francs in 1862, 5,116,285 francs

¹¹ Grout: *Les Services Maritimes Postaux en France*, p. 34.

in 1863, and 4,879,465 francs in 1865. Reimbursement by the company began the following year with annual payments of 1,000,000 francs through 1876 (except in 1870 when 1,050,833 francs and in 1872 when 949,167 francs were paid). In 1877 the annual payment was reduced to 166,312 francs, and in 1888 the company completed reimbursement of the Government advances.

Twelve vessels, of 9½ knots speed for the main services and of 9 knots speed for the branch lines, were to be built, the contract embodying details as to power and equipment and the exact manning scale. So far as a basis of measurement of operative requirements was concerned, the indicated power was the determining factor. The customary items as to mail and mail messengers, freight, and passenger carrying were included; also stipulations as to reimbursement of the company in case of requisition of the vessels for military use, specifying an interest charge of 5 per cent and depreciation of 5 per cent upon a valuation placed upon the vessel by a joint board.

The French Government by agreement of June 23, 1854, had arranged with the Egyptian Government for transisthmian transport of mails by rail, and by agreements of March 5, 1859, and July 9, 1864, had arranged for transport of passengers in the same manner. The opening of the Suez Canal made many important changes in the Messageries contract, among which was an increase of speed to about 13 knots.

CONTRACT OF 1881

A commission was named in 1879 to study the question of a line to Australia and New Caledonia, with the result that by the agreement of January 15, 1881, approved by the law of June 23, 1881, additional lines were opened to Australia and New Caledonia. In 1885 a line to East Africa was added.

Revision of the 1881 contract during the latter part of the nineteenth and the beginning of the twentieth century brought the speed requirements up to 14 knots on the principal lines.

CONTRACT OF 1911

The subsidy payment in the contract of December 30, 1911,¹² was based on speed, tonnage, and service, and was limited to an average 27.50 francs (\$5.30) per marine league, or about \$1.75 per nautical mile, for all services performed and refund of Suez Canal dues. Vessels were required to be of French construction and of minimum gross tonnages of 11,000 to China and Australia, 7,500 for Mediterranean service, and 3,000 for services from Colombo to Calcutta.

¹²A discussion of the agreement of December 30, 1911, is to be found in Chamber of Deputies Document No. 1199, dated July 12, 1911, signed by the Ministers of Public Works, Posts, and Telegraphs, of Colonies, of Commerce and Industry, of the Navy, and of Finance. This document consists of a 25-page report, followed by the contract itself and stipulations covering 84 printed pages. Chamber of Deputies Document No. 1453, dated December 7, 1911, signed by M. Simyan, deputy, in behalf of a commission of 44 charged with the investigation of the project, is a 45-page survey of the requirements of the service followed by the contract and stipulations. The Ministry of Public Works, Posts, and Telegraphs published the stipulations separately in a 63-page edition. Both the 1916 edition and the revised 1923 edition of Government Aid to Merchant Shipping (issued as Special Agents Series No. 119 by the Bureau of Foreign and Domestic Commerce, Washington) carried a detailed analysis of this contract.

Speed requirements under the 1911 contract were 15 knots for the main line from Marseille to Saigon, and 14 knots on the extension to Yokohama and on the principal Mediterranean routes. If competitive services increased their speed, the French Government could demand higher speed from the contractor against larger subsidies.

The contracting company agreed to carry the mails without charge, to carry Government passengers at a 25 per cent reduction in fares, and to reserve a certain proportion of space for Government business, with a 30 per cent reduction in freight tariffs on Government traffic and free carriage of bullion and specie.

MESSAGERIES CONTRACT OF 1921

The present ocean mail contract with the Messageries Maritimes Steamship Co.¹³ is one of the most important and instructive of maritime transportation measures for the restoration of world trade and the adaptation of that trade to changed conditions resulting from the war. The contract was the result of over a year's consideration by the French Government; and upon an elaborate favorable report by M. Briand, President of the Council and Minister of Foreign Affairs, M. le Trocquer, Minister of Public Works, M. Sarraut, Minister of the Colonies, and M. Doumer, Minister of Finance—the report declaring that the “services to be performed under the new contract are services of national importance which must be assured at any cost”—it was approved by the National Assembly on July 28, 1921. It covers a period of 25 years ending December 31, 1947. Sixty per cent of the total budget for contract services in 1931 is applied to this contract.

The primary purpose of the contract is to maintain regular mail connections between France and its protectorates and colonies on the Pacific and Indian Oceans, including Indo-China, Madagascar, and smaller territories and islands, with a total population of 22,000,000. Such connections over routes of thousands of miles involve wholly different considerations from those governing communication across the Mediterranean with the 30,000,000 subjects in the French protectorates and colonies in northern and western Africa or even with French territories and citizens in the Western Hemisphere.

SUBSIDY RATES

The financial terms of the contract of 1921 were complicated by the effects of the war on France's system of communication with its colonies. In 1911 the Government had contracted with the Messageries Maritimes for the maintenance of a system of communications similar to that under the present contract. The contract fixed various rates of pay according to the route, but provided that the total subsidy should not exceed the sum resulting from a rate of 27.25 francs per marine league (3 miles) for all the contract voyages performed. Any excess over this sum was to be held by the Government until the routes could be reduced or other arrangements substi-

¹³A most convenient reference on the agreement of 1921 and the present contract is Circular No. 1152 of July 30, 1931, published by the Central Committee of French Shipowners (Comité Central des Armateurs de France), which contains the Briand report, laws, orders, agreements, stipulations, and other official data bearing upon the new contract.

tuted. Beginning with about 13,000,000 francs the first year, this contract at the outbreak of the war was calling for an annual subsidy of more than 16,000,000 francs and also a refund to the company of Suez Canal tolls amounting to about 3,600,000 francs a year—in all, nearly 20,000,000 francs annually, or \$3,800,000 at par of that day.

During the war the mail routes were steadily reduced or abandoned, and early in 1918 the Government requisitioned all the merchant ships of France. Nearly half the passenger fleet of the Messageries Maritimes was lost during the war. In August, 1919, a temporary arrangement was made to carry on the contract of 1911 until April, 1921, in order to gain time to adjust conflicting claims and to consider a new contract under post-war conditions. The contract of 1911 was for 25 years, hence in framing new arrangements the Government had to consider not only obligations incurred up to 1936 by that contract but also the necessity of maintaining, at any cost, communications with French colonies through the Mediterranean and across the Indian and Pacific Oceans. As a result of all these complications the contract of 1921 has many unusual features.

OPERATIVE ORGANIZATION

Under the new contract, which replaces the one of July 11, 1911, the Messageries Maritimes agrees to organize a subsidiary company with a capital of 60,000,000 francs (\$4,500,000 at 1921 average exchange) for the purpose of completing the revised terms of the 1911 contract which were to end in 1936 as well as the terms of the 1921 contract ending in 1947.

Formation of the new company was made necessary by the interests involved in the operation. The 1911 contract recognized both the company's private and public services but had presented accounting difficulties. This situation was to be corrected by a special corporation whose sole business was to carry out the Government services. Also this new organization assumed all the responsibilities in respect of the 1911 contract up to the time it was to have ended (1936). The subsidiary company is known as Société des Services Contractuels des Messageries Maritimes.

The Messageries Maritimes was to subscribe the first one-fourth of the stock and may not dispose of this except by consent of the administrative board of the subsidiary, in which the Government is largely represented. The Messageries Maritimes waived all war claims.

SUBSIDY'S RELATION TO BALANCE SHEET

The subsidy depends on the balance sheet each year. Against receipts of all kinds are to be set off all the ordinary expenses of operation, including insurance on all the fleet. Other liability items include, first, the sum required for annual amortization at amounts fixed for the 16 ships of the Messageries Maritimes and at 5 per cent for new ships; second, annual interest charges and repayment of loans; third, the sum needed to pay 7 per cent on paid-up stock; fourth, repairs and renewals at the rate of 2 per cent of the book value of the existing ships and 1 per cent for new ships, subject to modification if necessary; fifth, the sum of 20,400,000 francs to the

Messageries Maritimes annually up to 1936, and thereafter annually up to 1946 the sum of 16,337,000 francs, and in 1947 (when the contract expires) 13,910,000 francs; sixth, an operator's commission of 10 per cent of the excess of receipts over ordinary operating expenses, including insurance.

PROFIT AND LOSS SHARING

If the balance sheet should show a profit, 80 per cent of these profits go to the French Government and 20 per cent to the company. The company's share, however, can not exceed a 4 per cent dividend on its stock; and this, with the 6 per cent guaranteed, permits a maximum 10 per cent dividend. Any excess over that rate is to go half to the Government and half to a reserve fund.

A profit is not anticipated on mail routes of this nature and under the limitations called for by this contract. Experience before the war showed that the enterprise was not commercially profitable, and if it were conceivably so the Government would not be required to pay so large a subsidy as the 45,000,000 francs provided in the budget for 1923-24, 32,000,000 francs for 1924-25, 69,000,000 francs for 1925-26, 65,000,000 francs for 1926-27, 54,000,000 francs for 1927-28, 51,000,000 francs for 1928-29, 84,000,000 francs for 1929-30, 90,000,000 francs for 1930-31, and 118,000,000 francs for 1931-32. These estimates are apparently based upon the deficit of the previous year. Deficits were 32,416,628 francs for 1922, 76,619,052 francs for 1923, 69,099,404 francs for 1924, 65,143,215 francs for 1925, 34,449,586 francs for 1926, and 84,525,501 francs for 1927.

The arrangement to meet losses, therefore, is the practical subject to be considered. These, like profits, are apportioned 80 per cent to the Government and 20 per cent to the company. The company's liability for 20 per cent of the losses is to insure its active interest in the economical administration of the prescribed services; the liability may extend to the amount of its commission for operation (10 per cent of operating profits), but not beyond that.

CONSTRUCTION OF NEW SHIPS

Performance of the contract was begun with 16 steamers, aggregating 118,000 gross tons, with speeds of 13 to 14½ knots; but the contract recognized that it could not be fully performed until new ships are built, and this the company promises to do as soon as conditions permit. It is also planned to replace older ships with new ones according to terms agreed upon with the French Government.

New ships to be employed under the contract must be built in France, except that during the first five years of the contract such ships may be built abroad. After five years the ships may be built abroad if, under equal conditions as to type, construction, and time of delivery, the bids of French shipyards are at least 10 per cent higher than the bids of foreign yards. If the French price is more than 5 per cent higher but less than 10 per cent, the ships can be built abroad only with the consent of the Minister of Finance. The maritime credit law of 1928 established a 15 per cent cost differential in favor of French shipyards. (See p. 155.)

NATIONAL DEFENSE

New ships must be provided with platforms for guns suitable to their type and with two ammunition chutes which can be flooded from the bridge.

Ships hereafter put into the contract service must, on a trial trip of four hours under Navy rules, develop a speed of $1\frac{1}{2}$ knots above that regularly required to maintain their contract schedules.

Crippled or invalid soldiers, on presenting official certificates of disability, are entitled to a reduction of 75 per cent in second and third cabin fares, not including cost of food; and, if the soldier be a total invalid requiring an attendant or nurse, the attendant is entitled to the same reduction.

A quarter of the cabins of each class and a quarter of the cargo space must be reserved for the Government up to 15 days before ships depart from Marseille and also on the return voyages at Saigon, Tamatave, and Noumea. Special accommodations are to be provided for the Government's postal agent, including a launch for his exclusive use in charge of an officer. The bodies of French soldiers, sailors, and Government officers who have died in the colonies must be transported at 50 per cent of first-class fares.

ROUTES AND SCHEDULES

The scope of the contract is shown by the large number of ocean-mail routes, some of them 20,000 miles for the round voyage, which the contracting company is bound to maintain regularly according to the following schedules:

Far East

1. (a) A voyage every two weeks, outward and return, between Marseille, Port Said, Jibuti, Colombo, Penang, Singapore, Saigon, Hong Kong, Foochow (optional), Shanghai, Kobe, and Yokohama.

(b) A voyage every four weeks, outward and return, between Marseille, Port Said, Jibuti, Colombo, Singapore (optional), Saigon, Turan, and Haiphong.

(c) In case the Compagnie des Messageries Maritimes (the parent company) should abandon its commercial service to India, the contractor will be bound to guarantee, at the request of the minister, either a monthly service by cargo boat between Dunkirk, Marseille, Port Said, Aden, Colombo, Pondicherry, and Calcutta (outward bound), and between Calcutta, Pondicherry, Colombo, Jibuti, Port Said, Marseille, and Dunkirk on the return voyage, or a branch line between Colombo, Pondicherry, Calcutta, and return.

Australia and New Caledonia

2. (a) A voyage every four weeks, outward and return, between Dunkirk, Marseille, Port Said, Aden, Colombo, Sydney, and Noumea, with Aden (optional) and Jibuti on the return. Between Colombo and Sydney the contractor may follow a route and maintain schedules of his choice.

(b) A voyage every four weeks between Sydney, Noumea, and New Hebrides; on the return voyage via Noumea to Sydney, connect-

ing with the ship returning to France. The itineraries of this service, in so far as the schedules to the New Hebrides are concerned, are fixed by an agreement between the Government and the representatives of the contractor, observing the necessity of assuring at Sydney the transfer of mail for Europe. Twelve voyages are to be made in a year, and the time corresponding to the thirteenth voyage will be utilized for repairs at one or more periods.

(c) The contractor, if circumstances justify, will be bound to assure services between France and Tahiti. The conditions for the performance of the necessary voyages will be determined with the consent of the contractor in agreement with the minister charged with the supervision of the merchant marine and the Minister of the Colonies.

East coast of Africa

3. A voyage every two weeks, outward and return, between Marseille, Port Said, Port Sudan (optional), Jibuti, Mombasa, Tanga (optional), Zanzibar, Dar-es-Salaam, Kiloa (optional), Majunga, Diego Suarez, Tamatave, Reunion, and Mauritius, including Aden on the return.

Eastern Mediterranean

4. (a) A voyage every two weeks, outward and return, between Marseille, Naples (optional), Piraeus, Smyrna, Constantinople, Smyrna, Beirut, Vathy (or optional Rhodes), Constantinople, Smyrna, Piraeus, Naples (optional), Marseille. The schedules for the coast of Carmania will be maintained during the period agreed upon by steamers based at Beirut.

(b) An express voyage every two weeks, outward and return, between Marseille, Naples (optional), Alexandria, Port Said (optional), Jaffa (optional), Haifa (optional), Beirut, Alexandretta. By agreement between the Government and the contractor, certain of these voyages at certain periods of the year may be ended at Alexandria or may even be given up.

(c) A voyage every two weeks, outward and return, and alternating with the preceding, between Marseille, Naples (optional), Alexandria, Port Said (optional), Jaffa (optional), Haifa (optional), Beirut, Alexandretta (optional).

The maximum time allowed for the voyage between the terminals of each route is fixed in the contract; for example, from Marseille to Saigon, 26 days 7 hours; from Saigon to Yokohama, 16 days 2 hours; from Marseille to Reunion, 38 days; from Marseille to Sydney, 47 days 7 hours; from Sydney via Batavia to Marseille, 50 days 1 hour. If competing foreign lines develop higher speeds, the contract permits the French Government to require increased speed from ships hereafter built to carry out the contract and as far as it may be practicable from ships already so employed.

SOUTH AMERICAN SERVICES

CONTRACT OF 1860

A subsidized service between France and South America was instituted in May, 1860, when a contract between the French Government and the Compagnie des Messageries Maritimes went into effect.

This service antedates by a year the Havre-New York service of the *Compagnie Générale Transatlantique*.

The original contract was for 20 years and provided an annual subsidy of 4,700,000 francs (\$907,100 at \$0.193 to the franc) for voyages aggregating 303,696 miles—a rate of about 15.50 francs (\$2.99) per mile. This contract was modified by an agreement dated April 22, 1861, which suppressed the line between Marseille and Rio de Janeiro and reduced the subsidy to 2,306,172 francs (\$445,091). Under the modified agreement the company was obliged to operate a line from Bordeaux to Rio and from Rio to Buenos Aires. The contract was renewed by agreements of June 20, 1886, November 5, 1894, and June 26, 1907.

CONTRACT OF 1912

In July, 1912, a new convention was entered into between the French Government and the *Société d'Etudes de Navigation*, a nominal concessionaire, which ceded its rights to the *Compagnie de Navigation Sud-Atlantique*, in which the *Compagnie Générale Transatlantique* and the *Compagnie des Messageries Maritimes* are believed to hold an interest. It appears that the failure of the *Compagnie des Messageries Maritimes* to retain a contract it had held since 1860 was due chiefly to its inability to meet the speed requirements which were demanded by the Government and which the *Société d'Etudes de Navigation* was prepared to accept.

The contract was for 25 years beginning July 22, 1912, and provided for a subsidized postal service, with round voyages once every two weeks, between Bordeaux, Lisbon, Dakar, Rio de Janeiro, Montevideo, and Buenos Aires. In addition the company was required to operate a nonsubsidized commercial service, with voyages at least once a month, between Bordeaux, Dakar, Pernambuco, Bahia, Rio de Janeiro, Santos, Montevideo, and Buenos Aires, by vessels of not less than 4,000 tons cargo capacity and of not less than 11 knots average speed.

As to the vessels to be operated on the subsidized line, the contract stipulated (art. 26) that they must be built in France and must have a minimum displacement of 11,000 tons and a minimum annual average speed of 15 knots between Bordeaux and Lisbon and 18 knots between Lisbon and Buenos Aires. However, it was provided (art. 97) that temporarily the company might operate vessels of 9,000 tons displacement at a speed of 14 knots from Buenos Aires to Lisbon and 15 knots from Lisbon to Buenos Aires, and that two of the vessels might be of foreign construction. These requirements resulted in the construction of the *Lutetia* and the *Massilia*.

Due to conditions caused by the World War, the 1912 contract was revised and renewed for a period of 10 years from August 13, 1920. Mutual profit and loss sharing terms were included in the 1920 contract.

SUD-ATLANTIQUE CONTRACT OF 1928

The present French Government subsidized service to Brazil and the River Plate bears the elements of a partnership between the Government and the *Compagnie de Navigation Sud-Atlantique* in respect of profit-and-loss sharing arrangements, and the recent revi-

sion of the provisional contract of 1920 is a most searching and thoroughgoing investigation of economic, commercial, and technical considerations entering into subsidized ocean-mail services.¹⁴

A direct result of these negotiations was the launching on April 15, 1930, of *L'Atlantique*, the largest and fastest steamer to ply between Europe and South America. This de luxe passenger steamer is of 39,900 gross tons, will develop 52,400 horsepower, is designed to 23 knots speed, and is scheduled to take its place in the South American service in 1931.

ROUTES AND SCHEDULES

The present agreement was signed on January 31, 1928, approved by the Chamber of Deputies on February 22, by the Senate March 15, and promulgated on April 6. According to article 12 of the agreement, the contract is to become effective upon a date to be determined by the ministry in charge of the merchant marine and to end on December 31, 1952. The effective date was fixed at December 31, 1928, thus making 1929 the first full operating year under the new contract.

The operating company binds itself to maintain a sailing every two weeks with fast de luxe passenger vessels between Bordeaux, Vigo, Lisbon, Rio de Janeiro, Montevideo, and Buenos Aires. Calls at Dakar, the Canaries, and Cape Verde Islands are obligatory for revictualing.

The services are to be maintained by the passenger steamers *Lutetia* of 14,784 gross tons, built 1913, and the *Massilia* of 15,363 gross tons, built 1920, and two new vessels (*L'Atlantique*, just mentioned, being one of them) to be built under the customary naval regulations and inspection. Provisional reductions in services are effective until the full vessel equipment is available or until subsequent agreements are made, as in case of the end of the period of usefulness of the *Lutetia* and the *Massilia*, which is fixed by the agreement to be December 31, 1940, for the former and December 31, 1945, for the latter.

The effect of the speed required of the new vessels on this service is illustrated by time limitations, which specify that the present vessels shall make the passage in 18 days during the busy season and in 21 days during the slow season, while the new vessels must make the voyages in 15 and 18 days, respectively, a saving of 3 days over a route of 6,150 miles.

¹⁴ In conjunction with the discussion of the 1928 agreement an elaborate report was prepared and presented to the French Senate by M. Rio, a member of that body. This report deals at length with the necessity for the development of French influence in South America, the status of fast passenger vessels in the trade, emigration movement, competition, and the relative merits of steam and motor power in the run. This report and the laws, agreements, and operating conditions governing the new contract are contained in Circular No. 1353 of May 19, 1928, issued by the Central Committee of French Shippers.

In a previous report prepared on the renewal of the contract of 1920 by M. Millerand, M. Yves de Trocquer, M. Serraut, of the cabinet, and by committees of the Chamber of Deputies, it was stated that the mail and passenger steamers would serve a population of nearly 45,000,000, not only on the Atlantic coast of South America but on the Pacific coast through the Transandinian Railroad, nearly all of Latin origin. Beyond that there are 200,000 French citizens in the various countries of South America engaged in commercial and engineering enterprises, in teaching, and in the professions. The importance to French commerce of attracting travel and intercourse with South America, as well as the need of steamships equal or superior in speed and accommodations to those of competing nations, was emphasized in all the reports.

MAILS—FREIGHT AND PASSENGER RATES

The contractor carries all mail for account of the postal administration, the remuneration for this service being fixed annually. The contractor carries parcel post at International Postal Union rates.

The contracting company agrees to fix freight and passenger rates according to competitive tariffs and to enter into agreements on this point with other French or foreign companies or conferences.

The State is to benefit by any concession that may apply to passengers or freight by comparable competing steamers. Round-trip ticket limitations for Government passengers are established at three years and six months. Reduction in passage for invalid soldiers is provided at 75 per cent off regular rates.

FINANCIAL ARRANGEMENTS

The amount of subsidy paid the contracting company depends largely upon the efficiency of its management and the commercial possibilities of the trade.

The company must finance the construction of the required vessels and the State agrees to guarantee the interest and the amortization of the principal. This provision, however, does not greatly affect the contract, as the maritime credit law (see p. 154) was passed shortly after the approval of the agreement. It may affect the company in case the annual limit of loans available to one borrower through the Credit Foncier should preclude use of this agency. The contractor can then go into the open market assured of the Government guaranty.

The annual subsidy depends upon the difference in revenues and expenditures. Into the operating revenues go all receipts from all sources with the exception of certain transactions which had their beginnings before August 26, 1920. The expense account includes all normal operating charges including insurance premiums, depreciation on the *Lutetia* and *Massilia* and other equipment, interest on and amortization of loans, 5 per cent interest charge on a capital of 19,831,536 francs, and other lesser charges. The company also receives 10 per cent of the excess of revenues over operating expenses and charges this amount to the expense account.

PROFIT AND LOSS SHARING

The resulting difference determines the compensation of the company. If the revenues still are greater than the expenditures, the company receives 10 per cent of the difference and the State 90 per cent. If the expenditures are greater than the revenues, the company absorbs 10 per cent and the State 90 per cent of the loss.

The company is entitled to profits up to 10 per cent on the capitalization according to above sharing arrangement. If the distribution of the account results in a profit of more than 10 per cent but less than 20 per cent, the profits between 10 and 20 per cent will be

divided 25 per cent to the State, 25 per cent to a reserve fund, and the remainder to the company. If the profits exceed 20 per cent, the excess will be divided 37½ per cent to the State, 37½ per cent to reserve, and the rest to the company.

The gross earnings of the Compagnie de Navigation Sud-Atlantique totaled 101,689,445 francs (\$3,986,226 at the stabilized rate of \$0.0392 to the franc) during 1928. Operating and overhead expenses, depreciation, and financial charges absorbed 101,585,567 francs (\$3,982,154), leaving a net profit of 103,878 francs (\$4,072). In the balance sheet of December 31, 1928, an item of 16,000,000 francs (\$627,200) appears as payments made on the new liner, repair fund at 7,019,315 francs (\$275,157), and depreciation at 23,017,000 francs (\$902,300).

For 1929, the first full year of operation under the new contract, the budget of France included an estimate of 25,000,000 francs (\$980,000) for the South American contract; for 1930-31 the budget estimates are 35,450,000 francs (\$1,390,000) and for 1931-32, 49,645,000 (\$1,946,000). This service therefore takes the second largest expenditure under the French system and compares with the 118,000,000 francs appropriation in 1931 for the Far East contract.

For listed budget appropriations for this service since its beginning see Table 23, page 128.

MEXICO, CENTRAL AMERICA, AND WEST INDIES SERVICES

TRANSATLANTIQUE CONTRACT OF 1927

The present postal-service contract between France, Mexico, Central America, and the West Indies calls for a vessel-replacement program which will cost the contractor approximately \$16,000,000 at current prices, and the amount of the subsidy is based upon the addition of new vessels. The agreement between the Government and the Compagnie Générale Transatlantique (popularly referred to as the French Line), dated April 21, 1927, was approved by the law of March 23, 1928. It replaces the contract of October 26, 1908 (approved by law of December 27, 1911), is retroactive from September 1, 1927, and expires December 31, 1947.

CHANGE IN TYPE OF CONTRACT

The present contract was concluded by negotiation, the Government in this case setting aside the principle of public bidding for the reason that the stipulated vessel-replacement program would require a capital expenditure which only substantial and experienced operators could guarantee.¹⁵

The system adopted is that of a straight contract with a direct increase of subsidy in proportion to the entry into service of new vessels—a direct stimulus to a vessel-replacement program. In electing this policy the administration stated that the system of government partnership in contracts had not been satisfactory, due to the lack of incentive on the part of the concessionaire toward economical

¹⁵ Extension of remarks, French Chamber of Deputies, June 21, 1927.

operation inasmuch as increases in costs and decreases in revenues fell principally upon the State. Particularly had this fault been noticeable where contractors operated "free" (nonsubsidized) cargo services parallel to the contract vessels, as, for instance, in the case of the lines to the Antilles.

FINANCIAL ARRANGEMENTS

To avoid the difficulties of direct government participation in an operating contract and at the same time to meet the objection raised against fixed-payment contracts and the lack of incentive toward increasing the revenue of fleets engaged therein, the subsidy in the present contract is divided into two distinct parts—(a) a fixed payment as remuneration for the service based upon equipment at the beginning of the contract, and (b) a sliding-scale increase in subsidy to cover renewal of the fleet, based upon the difference of the current value of the obsolete vessels and the cost of replacements.

Each branch of the French Government using the ships of the Compagnie Générale Transatlantique must itself pay for them. The new contract, for example, compels the company to provide the usual accommodations for mails and arrange for their delivery, but the French post office must pay for mails transported at rates agreed on by the Post Office and the Merchant Marine Departments and the company. In like manner the new contract requires the usual accommodations for troops, Government passengers, and supplies, but payment for the use of such accommodations must be made by the War Department, the Navy Department, and the other departments concerned, from their own funds and on a commercial basis.

ROUTES AND SCHEDULES

The following analysis of this contract by the late Eugene T. Chamberlain is based upon Circular No. 1352 of the Central Committee of French Shipowners, issued May 8, 1928, which contained the laws, agreements, and official reports and was printed in Commerce Reports of August 13, 1928:

Guadeloupe, Guiana (French), and Martinique are French territory and represented in the Senate and Chamber of Deputies of the French National Assembly; Haiti was formerly French, and French is its language; the Panama Canal was begun by de Lesseps; and French interests are still considerable in Mexico. * * *

The new contract is divided into two parts. The first part provides for the maintenance and restoration to regularity of existing communications with the ships now employed by the company on the routes they serve; the second part provides for the gradual substitution of new and faster steamers on these routes.

The contract prescribes a total annual service of 502,500 nautical miles, for the performance of which by the company's existing steamers an annual payment of 3,000,000 francs is allowed. Every four years after January 1, 1933, this amount may be revised to meet conditions. It calls for 38 monthly trans-Atlantic voyages during a year by 14-knot ships, with St. Nazaire or Le Havre as the terminal in France, and Habana, Vera Cruz, or Colon as the western terminal. At intermediate Spanish, Venezuelan, and Colombian ports and at ports in the French, British, and Netherland West Indies and Guianas the ships are required or permitted to stop on terms fixed in the sailing schedules. Be-

sides these 38 voyages, 6 more trans-Atlantic voyages in a year are prescribed for 11-knot ships between Le Havre and Bordeaux and ports in Porto Rico, Santo Domingo, and Haiti. The 44 trans-Atlantic voyages thus require an annual mileage of about 450,000 nautical miles. The rest of the mileage is applied to two routes, each with a monthly sailing by 11-knot steamers between ports in the French West Indies, Haiti, Santo Domingo, and the Lesser Antilles and the Guianas, thus rounding out connections between France and its territories in the Antilles and between those territories and near-by islands and the northern coast of South America.

CONSTRUCTION OF NEW SHIPS

The existing fleet of the company employed on the routes described comprises 12 steamers of 78,000 gross tons, which cost 85,600,000 francs. Of these, only two were built since the outbreak of the war—the *Cuba* built in 1923 in England, a 16-knot ship of 11,336 gross tons costing 30,200,000 francs, and the *Lafayette*, built in 1915 at Marseille, an 18-knot ship of 12,220 gross tons, costing 10,855,000 francs. With its present fleet the company has not been able to comply with the contract, and somewhat slower ships than those prescribed are allowed until new ships can be built or other ships purchased with the Government's approval. The future performance of the contract requires the building of new ships in France, and to accomplish this result the Government has agreed to cooperate with the company.

The contract provisions for the Government's assistance in the building of the company's new steamers during the next 10 years are based on the fact that, at present prices, it will cost 400,000,000 francs (\$15,980,000) to replace with new, faster, and larger steamers the 11 steamers now in use, built before 1915 at pre-war costs of 55,000,000 francs (\$10,615,000). The Government's assistance will take three forms:

1. *Shipbuilding subsidies.*—During each of the first 10 years of the contract 5,000,000 francs (\$196,000 at the stabilized rate of \$0.0392) will be voted as a construction fund, in all 50,000,000 francs. This construction fund is available only for building the slower ships on the line to Porto Rico, Santo Domingo, and Haiti and for building the smaller ships connecting the French possessions with other West Indian islands and the South American coast.

2. *Operating subsidies.*—As each new ship goes into commission it is to receive a special operating subsidy, whatever its contract route, in addition to its share of the 3,000,000 francs (\$117,600) voted annually for the operation of the entire fleet. While in form an operating subsidy, payable annually, this special subsidy is in fact also for the purpose of bringing, by new ships, future service on all the routes up to the requirements of the times. This special subsidy is based on the first cost of each new ship, which will vary, of course, with type and time and place of building and the date when the new ship goes into commission. The precise amounts of these special subsidies thus could not be stated in the contract. One can, however, approximate the cost of the special subsidies when the entire new fleet is in operation. The estimated cost of the whole new fleet is 400,000,000 francs (\$15,980,000). The contract requires that, to fix special subsidies, from this cost shall be deducted (a) the 50,000,000 francs already provided for the three slower routes, (b) 5 per cent of the first cost annually for depreciation of the new ships, (c) the amount received by the company for the sale of the old ships, which perhaps may be estimated at 10,000,000 francs. The amount would then stand at the end of the tenth year:

Estimated first cost of new ships.....	Francs	400,000,000
	Francs	
Deduct total construction subsidy for new ships on three slower routes.....	50,000,000	
Deduct 5 per cent annual depreciation of all new ships.....	20,000,000	
Deduct sale of old ships.....	10,000,000	
		80,000,000
		<hr/>
Balance		320,000,000
Special annual subsidy, 4 per cent of balance.....		12,800,000

Government guaranty of interest.—To build the new fleet the steamship company must borrow most of the money. The maritime credit law of July, 1928, provides the method by which loans for shipbuilding, on adequate security, can be borrowed at 4 per cent, the Government making good any additional interest charge. To complete the new fleet for the routes the steamship company will have to borrow upward of 300,000,000 francs, which at 4 per cent would entail on it an annual charge of 12,000,000 francs—about the amount of the special subsidy when the fleet is in operation.

Further statements on the history of the French services to Mexico and the Antilles will be found below under the development of the Havre-New York service.

HAVRE-NEW YORK SERVICE

CONTRACTS OF 1857-1861

By a law of June 17, 1857, the Minister of Finance was authorized to contract for the payment of subsidies amounting to 14,000,000 francs (\$2,702,000) annually for 20 years for the operation of three trans-Atlantic services, namely, to New York, to Mexico and Central America, and to Brazil and Buenos Aires.

The services to New York and to Mexico were conceded to the Marzion Co. by a decree of February 20, 1858. This company was unable to continue the contract, and accordingly by an agreement of April 24, 1861, approved by the law of July 3, 1861, the contract was granted to the Compagnie Générale Maritime, which subsequently opened the service under the name, "Compagnie Générale Transatlantique."

GOVERNMENT ADVANCES

In the light of modern developments one of the most interesting features in connection with the establishment of these services was the arrangement by which the contracting company was financed. According to an agreement of October 20, 1860, between the Minister of Finance, the contracting company, and the Credit Mobilier, approved by the law of July 3, 1861, the State agreed to advance a sum equal to two years of the authorized subsidy to the Compagnie Générale's three trans-Atlantic lines, or 18,600,000 francs (\$3,589,800), repayable in 20 years. Subsequent agreements authorized further advances until a total of 22,600,000 francs (\$4,361,800) had been reached.

The Government advanced this money: Under the law of July 3, 1861—5,505,456 francs in 1862, 3,430,233 francs in 1863, 2,609,139 francs in 1864, 3,751,842 francs in 1865, and 3,303,330 francs in 1866; under laws of July 26, 1868, and January 22, 1874—2,850,000 francs in 1872 and 1,150,000 francs in 1878. Repayment of these advances was made by the Compagnie Générale Transatlantique in the following amounts:

TABLE 21.—REPAYMENT OF GOVERNMENT ADVANCES BY COMPAGNIE GÉNÉRALE TRANSATLANTIQUE

Year	Reimbursements by the company			
	Total		On advances under law of—	
	Francs	Equivalent in United States currency ¹	July 3, 1861, francs	July 26, 1868, and Jan. 22, 1874, francs
1865.....	387,500	\$74,790	387,500	.....
1866.....	930,000	179,490	930,000	.....
1867.....	930,000	179,490	930,000	.....
1868.....	930,000	179,490	930,000	.....
1869.....	930,000	179,490	930,000	.....
1870.....	930,000	179,490	930,000	.....
1871.....	77,500	14,955	77,500	.....
1872.....	1,982,500	382,625	1,782,500	200,000
1873.....	1,196,667	230,960	930,000	266,667
1874.....	1,196,667	230,960	930,000	266,667
1875.....	1,270,740	245,250	930,000	340,740
1876.....	1,235,314	238,415	930,000	305,314
1877.....	1,235,314	238,415	930,000	305,314
1878.....	1,235,314	238,415	930,000	305,314
1879.....	1,235,314	238,415	930,000	305,314
1880.....	1,235,314	238,415	930,000	305,314
1881.....	1,235,314	238,415	930,000	305,314
1882.....	1,235,314	238,415	930,000	305,314
1883.....	1,235,314	238,415	930,000	305,314
1884.....	1,235,314	238,415	930,000	305,314
1885.....	720,600	139,075	542,500	178,100
Total.....	22,600,000	4,361,800	18,600,000	4,000,000

¹ Converted at the pre-war par rate of \$0.193 to the franc.

Source: Account No. 9, Special Services, Ministry of Finances, Jan. 1, 1886 (Administration des Finances, 1885).

Under the contract of April 24, 1861, mail service was to be maintained for a period of 20 years between France and New York and France, Cuba, and Mexico. This agreement carried a subsidy of 3,000,000 francs (\$579,000) for 26 voyages yearly between Havre and New York at a minimum annual average speed of 11.5 knots. The rate was 55.80 francs (\$10.77) per marine league, or 18.60 francs (\$3.59) per mile. By a supplementary agreement of December 16, 1873, the number of voyages was increased to 40 and the subsidy to 3,644,000 francs (\$703,300).

The original contract with this company provided for the payment of 6,300,000 francs (\$1,215,900) for a service between St. Nazaire and Cuba and a service between Cuba, Cayenne, Vera Cruz, and Colon. Vessels on the former service were required to maintain an average speed of 10 knots and on the latter 8 knots.

CONTRACT OF 1886

A new contract was awarded to this company for a period of 15 years, commencing July 22, 1886. This contract called for the maintenance of a weekly service between Havre and New York with 15-knot vessels and the rate of subsidy was 49.60 francs (\$9.57) per mile, making a total annual payment of 5,490,000 francs (\$1,059,600). In addition the company was granted a speed bounty of 12 francs

(\$2.32) per gross ton for each one-tenth of a knot above the minimum annual average of 15 knots, with a maximum of 1,200,000 francs (\$231,600) per year.

CONTRACT OF 1901

In 1898 a new agreement was entered into between the French Government and Compagnie Générale Transatlantique for a 10-year extension of these services, commencing July 22, 1901. This contract called for the building in France of four new steamers for the run between Havre and New York. These steamers were to show a minimum trial speed of 22 knots under forced draft. The contract provided also that the minimum annual average speed for all vessels operated by this company should be 17 knots after April 1, 1900, 17.5 knots after July 1, 1900, and 18.3 knots after April 1, 1903. For each one-tenth of a knot in excess of 19 knots in the annual average speed of its vessels the company was to receive a speed bounty of 25 francs (\$4.83) per gross ton. This agreement provided in effect for a reduction of the subsidy proper from 5,490,000 francs (\$1,059,600) to 5,000,000 francs (\$965,000) and for an increase in the maximum speed bounty from 1,200,000 francs (\$231,600) to 1,680,000 francs (\$324,200).

Renewal of this contract was the subject of discussion in the French Parliament for nearly a decade. Upon termination of the contract in July, 1911, it was prolonged to December 31, 1911, then to December 31, 1912, then to April 1, 1913, and finally to July 31, 1913, at which time a new 25-year contract was entered into.

CONTRACT OF 1913

The contract was signed on November 20, 1912, and went into effect on January 1, 1913, although it was not ratified by the French Parliament until July 31, 1913. Under it the company was to receive an annual subsidy of 6,000,000 francs (\$1,158,000) during the first four years and a subsidy varying from 2,500,000 to 7,200,000 francs (\$482,500 to \$1,389,600) during the succeeding years. At the end of the fourth year, and of each year following, the subsidy was to be calculated by taking the average of the subsidies paid during the four years immediately preceding and adding or subtracting a sum necessary to raise or lower the earnings to 5 per cent of the average capital employed during the same fiscal years in the services contemplated by the contract. The total amount of the subsidy was not to exceed 7,200,000 francs nor fall below 2,500,000 francs.

In case the company earned in any one year a profit higher than the average rate of earnings distributed during the four fiscal years preceding the signing of the contract, the Government was entitled to one-fourth of any surplus not exceeding 1 per cent, to one-third of the surplus between 1 and 2 per cent, and one-half of any surplus in excess of 2 per cent. At the expiration of the contract the Government was entitled to receive one-half of any reserves established by the company other than those required by law. Participation of the Government in the profits and reserves was limited, however, to the proportion necessary to reimburse the treasury for the sums paid to the company in excess of a sum corresponding to an annual subsidy of 6,000,000 francs (\$1,158,000).

The company undertook to carry mails free of charge and to allow a discount of 30 per cent on the fares of persons traveling at the expense of the State. In the event of war the Government may requisition the idle vessels of the company on paying a sum equal to 4 per cent of the estimated value of the vessel, paying for its ordinary depreciation and, in case of damage, for its deterioration or loss.

ROUTES AND SCHEDULES

The contract provided that the company would maintain a regular weekly service in both directions between Havre and New York without calls at intermediate ports, although ports of call might be established and the number of voyages increased or diminished by mutual consent of the contracting parties.

With the exception of the oldest vessel, which was to be considered a reserve vessel, the average age of the total tonnage was not to exceed 12 years during the first 22 years nor 15 years during the last 3 years of the contract.

The vessels were required to maintain a minimum speed of 15 to 18 knots from October 1 to March 31 and 16 to 20 knots during the rest of the year. The average speed of all the vessels was to be at least 18.3 knots for the whole year, unless the company was deprived by force majeure of the use of the fastest vessel for more than three months. Running the vessels at a lower speed subjected the company to fines calculated in percentages of the subsidy.

Under the original conditions of the contract the Compagnie Générale Transatlantique undertook to build four passenger liners for the North Atlantic service, one in 1916, another in 1921, a third in 1926, and the last in 1932. The 1932 vessel was to equal any competing vessel.

TRANSATLANTIQUE CONTRACT OF 1924

The contract was amended on June 23, 1923, approved by the law of April 26, 1924, and published in the *Journal Officiel* of May 1, 1924. The new contract provides for subsidized mail services between New York and Havre under revised allowances based upon the original contract of 1913, also for Government guaranty of loans for the purpose of constructing new vessels.

Under the new law the subsidy limits may vary between a minimum of 4,000,000 francs and a maximum of 21,600,000 francs. The budget estimates have been 4,000,000 francs for the year 1925-26, 4,000,000 francs for 1926-27, 11,600,000 francs for 1927-28, 7,500,000 francs for 1928-29, 6,000,000 francs for 1929-30, 6,600,000 francs for 1930-31, and 4,000,000 francs for 1931-32.

Under provisions of this law the French Line in 1927 sold a 6½ per cent sinking-fund gold bond issue amounting to \$4,500,000, the issue being placed in the Canadian market. Of this issue \$2,500,000 was taken in the United States. The bonds are dated February 15, 1927, due February, 1951, and the proceeds are to apply to the construction of two new ships for the North Atlantic service. The French Government guarantees the interest and amortization of the

loan and accepts as security a first mortgage on the ships. The bonds are exempt from French taxes.

There was laid before the French Parliament on the final day of the session which ended in July, 1930, a proposal to make possible the construction of a large passenger liner for the Compagnie Générale Transatlantique for its New York service by means of a loan of 700,000,000 francs (\$27,400,000) at an interest rate of 3 per cent, and to have the State underwrite that portion of the insurance which could not be placed in the insurance market at 0.55 per cent. It was estimated that 500,000,000 francs (\$19,600,000) would be required for insurance guaranty.

The State is called upon to make good operating losses up to 30,000,000 francs (\$1,176,000). A similar provision, limiting the liability of the Government to 21,600,000 francs (\$847,000) under the 1924 contract, has not been made use of during recent years. The present minimum is 4,000,000 francs, with current annual appropriations at 6,600,000 francs.

PROPOSED REORGANIZATION

The French Government now (June, 1931) officially recognizes a serious financial crisis in the operations of the Compagnie Générale Transatlantique. The company's accounts for 1930 show a deficit of 30,423,079 francs (\$1,192,584), against a gross profit of 107,306,354 francs (\$4,206,409) and a net profit of 16,781,928 francs (\$657,851) for 1929. The company has ordered many vessels during recent years—payments due shipyards for 1931 total 276,000,000 francs (\$10,819,200). Thirty steamers are laid up.

Plans for reorganization to be proposed in a bill include (a) temporary reduction in capital and partial write-off of operating deficit; subsequent increase of capital, to be supplied by another French steamship company and a shipbuilding company; (b) moratorium on the annuities of 35,000,000 francs (\$1,372,000) excess-profit duty due the French Treasury; (c) increase in subsidies to the New York line to 25,000,000 francs (\$980,000) for 4 years and 20,000,000 francs (\$784,000) for the next 10 years; reimbursable advances of 160,000,000 francs (\$6,272,000) from the French Treasury or a Government guaranty of a loan in that amount. As Parliament will soon close it is unlikely that all of the above provisions will be enacted until further consideration at the next session.

NORTH AFRICAN SERVICES¹⁶

OUTLINE OF SERVICES

PERIOD FROM 1830 TO 1897

From 1830 to 1842 the business of the State, such as postal relations, transport for the army and navy, and passage for Government

¹⁶ A convenient reference on the French-North Africa services is Circular No. 1369 of the Central Committee of French Shipowners issued Oct. 10, 1928. The circular contains the text of the law of July 29, 1928, the three charter parties covering the services, and parliamentary reports on the subject. The report of the Merchant Marine Commission made by M. Roux-Freissineng, deputy, contains a history of the services from 1830 to 1928, reports on the work of the commission of 1915 and 1916, the senatorial commission of 1921 and the extra-parliamentary commission of 1921, as well as the debated points in connection with the adoption of the present system.

employees and officials between France and North Africa, was maintained only by naval vessels.

In 1842 a concession was let to the Bazin Co., of Marseille, and renewed until 1854.

From 1854 to 1871 the Compagnie Messageries Maritimes took over the postal service for an annual subsidy of 1,500,000 francs, including free transport of 15,000 fourth-class passengers and 3,000 tons of munitions of war.

In 1871 the Valery Co. obtained a 10-year contract for 900,000 francs.

Under the law of July 30, 1881, the Algerian postal lines were conceded to the Compagnie Générale Transatlantique for 15 years. At that time this company owned 25 passenger steamers and 7 freighters, all of which were too large for the Mediterranean trade. A fleet of 14-knot packets suitable for the service was required. French yards were unable to build them as quickly as was necessary, and the company's own Penhœt yard was equipped mainly to take care of repairs. For these reasons the ships were ordered in England. This caused much discussion in France and is said to have influenced the passage of the bounty law of 1881.

From July 1, 1895, to March 12, 1897, a new system was attempted, under which the Government obtained a credit of 800,000 francs (\$154,400), which was divided into two parts, namely, remuneration for the carrying of mail and special bounties for speed. It soon became apparent that it was impossible at that time to reconcile a free (nonsubsidized) system with the frequency, regularity, and permanence essential for postal service, and the Government resolved to again establish the system of agreements.

PERIOD FROM 1897 TO 1919

On December 16, 1896, a contract was concluded with the Générale Transatlantique, Navigation Mixte, and Transports Maritimes companies, which was approved by the law of January 11, 1898, and which was to end March 11, 1908. This contract was the first instance of the multiple-company contract in France.

The authorized subsidy was 1,600,000 francs (\$308,800) annually and 400,000 francs (\$77,200) for speed bounty for 312,884 marine leagues (938,600 miles) of sailing.

By agreement of December 24, 1908, the contract was prolonged, at first for two years and thereafter periodically until 1914. Much discussion took place in respect of this contract, the Government demanding larger and faster vessels and lower freight rates without substantial increase in payments, while the company asked less exacting conditions or higher subsidies.

In September, 1914, the Générale Transatlantique and Navigation Mixte companies informed the Government that it was impossible to fulfill the stipulations of their contracts. During the war operations were curtailed under agreements for 90-day periods, and on June 11, 1919, the agreements were definitely denounced by all the companies.

PERIOD FROM 1919 TO 1923

Despite renouncement of their contracts, the companies maintained services between France, Tunis, and Algeria without State remuneration.

ation, and gave special concessions in rates for passengers and materials carried for the Government. But the vessel equipment was old and unsuitable.

The Government therefore built eight passenger vessels of the so-called *Gouverneur* type. These vessels were completed between 1921 and 1923 and were chartered to the companies for one year, with optional renewals, at a nominal charter rate, the charterer assuming all operating charges. In 1925 the charter rate was increased to a total of 1,960,000 francs annually and on January 1, 1927, raised to 2,160,000 francs for the eight vessels.

CONTRACT OF 1928

PRIVATE CHARTER UNDER GOVERNMENT OWNERSHIP

The law of July 29, 1928, approved three charter parties covering the operation of the eight Government-owned vessels mentioned above in contract services between France and North Africa. The total gross tonnage of the vessels is 32,000; the total annual charter hire, 5,400,000 francs, or an average of 170 francs (\$6.66 at \$0.0392 to the franc) per gross ton per year.

The Société Générale de Transports Maritimes à Vapeur of Marseille charters the *Gouverneur-General Laferriere* of 3,453 gross tons for 550,000 francs (\$21,600) annually; the Compagnie Générale Transatlantique charters the *Gouverneur-General Chanzy* of 4,384 gross tons, the *Gouverneur-General Grevy* of 4,565 gross tons, the *Gouverneur-General Jonnart* of 4,513 gross tons, and the *Gouverneur-General de Guyden* of 4,513 gross tons for an annual sum of 800,000 francs (\$31,400) per vessel, or 3,200,000 francs annually for the four. The Compagnie de Navigation Mixte, a subsidiary of the Compagnie Générale Transatlantique, charters the *Gouverneur-General Cambon* of 3,509 gross tons, the *Gouverneur-General Tirman* of 3,509 gross tons, and the *Gouverneur-General Lepine* of 3,509 gross tons for an annual sum of 550,000 francs (\$21,600) per vessel, or a total of 1,650,000 francs for the three.

The three charter parties were signed on March 1, 1928, for a 20-year period, subject to revision in the fifth, tenth, and fifteenth years of operation.

OTHER CHARTER PROVISIONS

The Governments of France, Algeria, and Tunis agree to the establishment of vessel-renewal funds, which during the 20-year charter period will amount to a total of 105,000,000 francs (\$4,116,000 at stabilized exchange). The French Government will set aside 2,000,000 francs (\$78,400) annually, while Algeria agrees to include an annual budget amount of 2,500,000 francs (\$98,000) and Tunis one of 750,000 francs (\$29,400), these funds to bear 4 per cent interest for the benefit of the treasury. The Algerian and Tunisian funds will at all times be held available to the French Government in case it is agreed to renew the chartered vessels.

Regular packet mail is carried free on the chartered ships, while parcel post is carried under the laws and conventions governing. The traffic between France and Algeria is reserved to vessels of

French nationality, and in return for this monopoly the French Government, in theory, has the right to have the mails transported free of charge on any French vessel in the trade, but in practice the chartered vessels, especially those of the Compagnie Générale Transatlantique, are employed for the mails on account of their superior speed.

Owing to the extremely favorable terms on which the vessels are chartered the Government has rights to concessions in freight rates and in passenger rates for Government employees and troops and for invalid soldiers.

AIR TRANSPORT COMPETITION

The development of trans-Mediterranean air traffic is a significant factor in the arrangements for subsidized services to North Africa, and an analogy may easily be drawn between the military importance of the air services of the present and the new steamer services of a century ago. The air-service development also provides an example of the readiness of the French Government to avail itself of new advantageous communications development.

The air routes from southern France to northern Africa range from 500 to 1,100 miles in length, with both terminals in French territory. The development of this service is indicated in Table 22.

TABLE 22.—TRAFFIC OVER FRENCH TRANS-MEDITERRANEAN AIR LINES

Year	Distance flown	Passengers carried	Goods and baggage carried	Mail carried
	<i>Kilometers</i>	<i>Number</i>	<i>Kilograms</i>	<i>Kilograms</i>
1922.....	2,798,366	6,799	388,509	40,367
1923.....	3,387,195	7,822	704,253	73,573
1924.....	2,647,826	10,758	674,559	110,176
1925.....	4,712,888	14,985	741,196	198,609
1926.....	5,220,585	18,634	767,681	154,258
1927.....	6,028,727	15,857	746,452	125,289
1928.....	7,297,004	19,698	1,156,417	130,385

NOTE.—The kilometer is equivalent to 0.62137 mile; the kilogram, to 2.2046 pounds.

Air traffic has trebled in the 7-year period indicated. Budget provisions for subsidies for the air service were 57,600,000 francs for 1926-27, 71,250,000 francs for 1927-28, 170,450,000 francs for 1929-30, 196,000,000 francs for 1930-31, and 200,000,000 francs for 1931-32. The appropriation for 1931-32 compares with 118,000,000 francs for the principal subsidized steamship line, that to the Far East, and exceeds the entire appropriation for ocean contract subsidies for 1931-32.

To the emphasis placed upon the colonial army, particularly in North Africa, and the necessity at all times to have adequate military transport available may be largely ascribed the active aid and interest of the French Government in its trans-Mediterranean services.

CORSICA SERVICE

In view of the importance to France of the island of Corsica, administratively a Department of the Republic, the French Govern-

ment has always been anxious to support a superior steamship service between that island and the mainland. Accordingly, the Corsican service¹⁷ is the second oldest in the French system, having been first authorized by the law of July 10, 1850, with its first appropriation—in the amount of 250,000 francs (\$48,250)—contained in the budget for 1852. To a large extent it has been a single-company service performed by Fraissinet et Cie., although the Compagnie Général Transatlantique also was at one time interested.

The service is supplied by the Compagnie Marseillaise de Navigation (Fraissinet et Cie.) by fast daily passenger vessels in both directions between Marseille and Corsica.

CONTRACT OF 1927

GOVERNMENT CHARTER UNDER PRIVATE OWNERSHIP

By an arrangement entered into on July 23, 1927, the Marseillaise company retains title to vessels serving the traffic. The Government charters the ships from the company and employs the company as operators. The Government requires the company to build new ships and agrees to pay all deficits which may result from their operation.

The budget estimate for this service for 1927 was 4,000,000 francs, to which, according to the Journal Officiel for October 4, 1927, was added a supplementary credit of 7,523,502 francs, making the total 11,523,502 francs (\$451,720 at \$0.0392). For 1928 the budget estimate was 7,500,000 francs (\$294,000); for 1929, 10,000,000 francs (\$392,000); for 1930, 14,800,000 francs (\$580,100); and for 1931-32, 15,000,000 francs (\$588,000).

The budget appropriations for this service are contained in Table 23.

VESSEL REPLACEMENT

While the service with Corsica is important, it requires only relatively small vessels and little time for a passage, since the 165 miles can be done by a 10-knot vessel in 16 to 18 hours and by a 15-knot vessel in 11 to 12 hours. There are five vessels in the service; at the beginning of the present contract the largest was of 2,793 gross tons and the smallest 1,294 gross tons. It may therefore be considered a local service and one that does not fit into the class of the transoceanic lines.

The agreement calls for the replacement of three vessels by one 1,700-ton vessel and two vessels of 15 knots speed, and a fourth vessel depending upon operating results. These vessels are to be approved by the Minister in charge of merchant marine matters at the time, according to article 3 of the agreement of May 10, 1927, whether the vessels be furnished by the State and placed at the disposal of the company or bought or constructed by the company.

¹⁷The principal official references on this service are contained in the Journal Officiel for July 5, July 14, and July 24, 1927. A convenient reference is Circular No. 1351 of the Central Committee of French Shipowners, published Apr. 28, 1928; this contains copies of the law of July 23, 1927, the agreement of May 10, 1927, and operation regulations of the same date.

FINANCIAL ARRANGEMENTS

Operating revenues include all receipts from the services and their operation, and operating expenses cover insurance and office expenses. Included as expenses likewise are interest charges at 7 per cent per annum and depreciation on port equipment, and interest charges on vessels at 6 and 7 per cent, depending upon the vessel, the original vessels under the contract being valued for this purpose at 10,300,000 francs. Depreciation charges at 4 per cent also are included.

The State makes up any deficit, allows certain amounts for annual fixed charges, and allows a further bounty or special operating commission of 3 per cent on all passenger and freight revenues for amounts between 5,000,000 and 10,000,000 francs, 4 per cent for amounts between 10,000,000 and 15,000,000 francs, and 5 per cent on amounts above 15,000,000 francs. However, if rates are increased above those in effect at the beginning of the contract the bounty may not be more than 3 per cent.

WEST COAST OF AFRICA SERVICES

By a law of March 15, 1889, a subsidized postal service was authorized from France to the west coast of Africa, to which, prior to this time, services had been maintained by British and other foreign lines. On May 20, 1889, the Compagnie des Chargeurs Reunis was awarded a 15-year contract for a part of the service (a line from Havre) for an annual subsidy of 311,850 francs (\$60,200 at par of that day). A second part of the service (that from Marseille) was awarded to the Compagnie Marseillaise de Navigation à Vapeur (Fraissinet et Cie.) for an annual subsidy of 189,000 francs (\$36,500). Each called for six voyages annually.

Modifications in the contracts were made on December 26, 1893, January 3, 1894, and June 1, 1900. Upon expiration of the first contract period two new agreements were concluded for the operation provisionally to July 4, 1905, of the line from Havre and to August 9, 1905, of the line from Marseille.

A law of July 21, 1905, approved two agreements of June 21 of the same year modifying the itineraries and prolonging the duration of the Havre service to July 4, 1908, and the Marseille service to August 9, 1908. The subsidy under the extension was on a mileage basis of 10.70 francs (\$2.07) per league (commonly 3 miles) for the line from Havre and 9.64 francs (\$1.86) per league from Marseille.

Finally a law of May 5, 1906, authorized the Minister of Public Works, Posts, and Telegraphs to again contract, in two lines, for services over a 15-year period to the West African coast. For this purpose the old system of fixed payments was abandoned and a combination of subsidy and bounty was proposed.

The reasons for this change in policy, according to the report laid before the Chamber of Deputies at the extraordinary session of 1904, was that fixed payments were incompatible with the spirit of initiative and progress essential in the development of commercial navigation.¹⁸ By lowering the fixed rates of the annual subsidy and

¹⁸ Grout, Henry: *Services Maritimes Postaux*, 1908, p. 63.

opening the way for the contractors to increase the compensation through available bounties under existing law, the State considered that remuneration would be in constant accord with the real value of the services rendered and that the concessionaires would be sufficiently stimulated to the betterment and renewal of their vessel equipment.

In consequence of this the new law stipulated that the contractors were to receive a total annual amount of 425,000 francs (\$82,000)—230,000 francs (\$44,400) for the first and 195,000 francs (\$37,600) for the second line. On April 5, 1907, the Chargeurs Reunis was awarded the Dunkirk-Matadi contract, which called for six voyages annually at 12 knots. No award was made for the Marseille line. Beginning with 1910, the budget estimates were reduced to 266,000 francs (\$51,300). No budget provisions were made from 1915 to 1917, but were again included from 1918 to 1922, when the contract ended by limitation. It has not been renewed.

CALAIS-DOVER SERVICES

Packet-boat services between France and England were begun before the end of the eighteenth century. Regular postal services were established between France and Great Britain on May 17, 1802.

Under the terms of an agreement between the Minister of Finance and the Clebstattel & Churchward Co., dated February 1, 1855, a cross-channel service was established for 15 years for a subsidy of 190,000 francs (\$36,700). This was approved by a decree of February 2, 1855. The service was executed by the South-Eastern Railway and the London, Chatham & Dover Railway.

The Franco-Prussian War prevented a renewal of the original agreement until October 1, 1872, when a 12-year contract was signed with the Société Française des Paquebots de Poste entre Calais et Doves for the cross-channel services for a subsidy of 100,000 francs (\$19,300) annually. This was renewed in 1882.

On June 8, 1894, a commission was appointed to examine the possibility of changing the itinerary. Negotiations resulted in an agreement of May 16, 1895, with the Compagnie du Nord for 10 years for a daily service between Calais and Dover at 15 knots speed for a subsidy of 250,000 francs (\$48,300).

This agreement expired on September 30, 1906. A temporary agreement was put into effect until the contract was renewed on May 1, 1907, for seven and one-half years to end December 31, 1914, and a different system of remuneration introduced. Instead of the former annual payment of 250,000 francs, under the new arrangement the remuneration was divided into two parts, the first of which was fixed in accordance with certain obligations as to hours of departure and arrival, etc., at a figure of 130,000 francs (\$25,100) annually, while the second part represented the cost of transport of mail, the cost varying with the importance and volume of the traffic. For the second part the payments were fixed at 292,500 francs (\$56,500) plus 12,500 francs (\$2,400) for 1908, and increased gradually so that the total payments from 1907 to 1914 rose from 435,000 francs (\$84,000) to 497,000 francs (\$95,900).

No budget provision appears in the estimates since 1914 for this service under the general classification of "subsidies."

TOTAL EXPENDITURES FOR SUBSIDIZED SERVICES

The total budget estimates for subsidized contract services in France are shown in Table 23. Although the figures are taken directly from the budgets of France, they are not accurate accounting figures. Due to reductions, in the shape of penalties for non-performance or for other causes, there may have been instances where the entire budget provision was not utilized. More often, however, special demands have required extraordinary and supplementary appropriations by which the original estimates have been increased. Only by consulting the final annual accounts of the ministry charged with administration of the subsidy system can an accurate total be ascertained. At various points such final accounts have been consulted without revealing any material variation from the annual budget figure as shown in Table 23.

TABLE 23.—ANNUAL APPROPRIATIONS FOR FRENCH CONTRACT SERVICES, 1851-1931

Year beginning July 1—	Total budget estimate 1		New York, Mexico, Central America, and the Antilles			Brazil and River Plate, francs	West Africa, francs	Corsica, francs	Algeria, Tunis, Tripoli, and Morocco, francs 1	Mediterranean, Far East, and Australasia			
	Francs	Equivalent in United States currency 2	New York, francs	Mexico, Central America, and West Indies, francs	Speed bounty, francs					Mediterranean, francs	Indo-China, francs	Australia and New Caledonia, francs	East Africa, francs
1851.....	799,000	\$154,207							(0)	799,000			
1852.....	3,250,000	627,250						250,000	(0)	3,000,000			
1853.....	3,250,000	627,250						250,000	(0)	3,000,000			
1854.....	3,250,000	627,250						250,000	(0)	3,000,000			
1855.....	3,290,000	634,970						290,000	(0)	3,000,000			
1856.....	3,773,191	728,228						290,000	(0)	3,483,191			
1857.....	3,963,191	764,896						290,000	(0)	3,483,191			
1858.....	8,963,191	1,729,896		5,000,000		(0)		290,000	(0)	3,483,191			
1859.....	10,256,119	1,979,431		5,000,000		(0)		290,000	(0)	4,776,119			
1860.....	10,256,119	1,979,431		5,000,000		(0)		290,000	(0)	4,776,119			
1861.....	10,219,519	1,972,367		4,963,400		(0)		290,000	(0)	4,776,119			
1862.....	10,219,519	1,972,367		4,963,400		(0)		290,000	(0)	4,776,119			
1863.....	10,137,392	1,956,517		2,800,000		2,306,273		290,000	(0)	4,551,119			
1864.....	21,917,392	4,230,057		7,580,000		2,306,273		640,000	(0)	4,451,119	6,750,000		
1865.....	24,287,392	4,687,467		9,300,000		2,306,273		640,000	(0)	4,351,119	7,500,000		
1866.....	24,187,392	4,668,167		9,300,000		2,306,273		640,000	(0)	4,251,119	7,500,000		
1867.....	24,087,392	4,648,867		9,300,000		2,306,273		640,000	(0)	3,894,437	7,750,682		
1868.....	23,682,464	4,570,716		9,495,173		2,306,172		640,000	(0)	3,794,437	7,250,682		
1869.....	23,852,464	4,603,526		9,495,173		2,306,172		640,000	(0)	3,964,437	7,250,682		
1870.....	25,783,553	4,976,294		10,245,173		2,306,172		640,000	(0)	3,594,437	8,808,071		
1871.....	27,935,246	5,275,702		10,245,173		2,306,172		640,000	(0)	3,594,437	10,359,464		
1872.....	26,816,900	5,176,062		10,245,173		2,306,172		640,000	(0)	3,076,091	10,359,464		
1873.....	26,363,387	5,089,134		10,245,173		2,306,172		640,000	(0)	3,076,091	9,995,951		
1874.....	25,759,873	4,971,655		10,245,173		2,306,172		640,000	(0)	3,076,091	9,632,437		
1875.....	25,734,873	4,966,830		10,245,173		2,306,172		375,000	(0)	3,076,091	9,632,437		
1876.....	25,271,380	4,877,376		10,145,173		2,306,172		375,000	(0)	3,076,091	9,632,437		
1877.....	23,575,460	4,550,064		10,145,173		(0)		375,000	(0)	3,076,091	9,288,944		
1878.....	23,575,460	4,550,064		10,145,173		(0)		375,000	(0)	4,382,263	8,573,024		
1879.....	23,575,460	4,550,064		10,145,173		(0)		375,000	(0)	4,382,263	8,573,024		
1880.....	23,388,893	4,514,056		9,958,606		(0)		375,000	(0)	4,382,263	8,573,024		
1881.....	23,882,393	4,609,302		9,958,606		(0)		375,000	493,500	4,382,263	8,573,024		
1882.....	23,968,893	4,625,996		9,958,606		(0)		375,000	580,000	4,382,263	8,573,024		
1883.....	24,268,893	4,683,896		9,958,606		(0)		375,000	880,000	4,382,263	8,573,024		
1884.....	26,729,629	5,188,818		9,958,606		(0)		375,000	880,000	4,382,263	7,736,544	3,297,216	
1885.....	26,709,629	5,184,958		9,958,606		(0)		355,000	880,000	4,382,263	7,736,544	3,297,216	
1886.....	26,709,629	5,184,900		9,958,303		(0)		355,000	880,000	4,382,263	7,736,544	3,297,216	

1887	26,709,023	5,154,841	9,958,000	(0)	355,000	880,000	4,382,263	7,736,544	3,207,216	-----		
1888	24,364,336	4,702,297	9,958,000	(0)	355,000	880,000	2,275,281	7,083,171	3,181,504	521,280		
1889	24,856,408	4,797,304	9,958,000	800,000	355,000	880,000	1,929,834	6,712,000	3,079,104	1,042,560		
1890	25,014,642	4,827,826	9,958,000	1,000,000	355,000	880,000	1,929,834	6,670,144	3,079,104	1,042,560		
1891	21,992,859	4,244,622	9,958,000	(0)	424,231	355,000	1,392,829	5,518,547	2,571,520	868,266		
1892	25,493,134	4,914,385	9,958,000	1,200,000	500,850	355,000	1,671,396	6,070,144	3,065,824	1,041,920		
1893	25,471,134	4,915,929	9,958,000	1,200,000	500,850	355,000	1,671,396	6,070,144	3,065,824	1,041,920		
1894	23,053,016	4,565,032	9,128,167	1,300,000	495,112	355,000	1,532,113	6,114,299	2,828,672	955,663		
1895	25,593,134	4,953,686	9,958,000	1,300,000	500,850	355,000	1,671,396	6,070,144	3,065,824	1,041,920		
1896	25,445,854	5,194,050	9,958,000	1,300,000	500,850	355,000	1,671,396	6,070,144	3,065,824	1,041,920		
1897	25,563,134	4,933,683	9,958,000	1,300,000	500,850	355,000	1,671,396	6,085,032	3,107,936	1,024,640		
1898	25,711,780	4,962,373	9,958,000	1,300,000	500,850	355,000	1,671,396	6,083,688	3,107,936	1,024,640		
1899	26,681,780	5,149,583	9,958,000	1,300,000	500,850	355,000	1,850,000	6,083,688	3,107,936	1,024,640		
1900	26,681,780	5,149,583	9,958,000	1,300,000	500,850	355,000	1,850,000	6,083,688	3,107,936	1,024,640		
1901	26,681,780	5,149,583	9,758,000	1,500,000	500,850	355,000	1,850,000	6,083,688	3,107,936	1,024,640		
1902	26,681,780	5,130,283	9,478,000	1,780,000	500,850	355,000	1,750,000	6,083,688	3,107,936	1,024,640		
1903	26,006,780	5,019,306	9,478,000	1,205,000	500,850	355,000	1,750,000	6,083,688	3,107,936	1,024,640		
1904	25,858,000	4,889,636	9,478,000	1,205,000	500,850	501,250	1,450,000	6,083,688	3,107,936	1,024,640		
1905	25,900,706	4,998,836	9,478,000	1,205,000	500,850	550,000	1,450,000	6,083,688	3,234,210	1,024,640		
1906	25,900,706	4,998,836	9,478,000	1,205,000	500,850	550,000	1,450,000	6,083,688	3,234,210	1,024,640		
1907	26,300,706	5,078,036	9,478,000	1,605,000	500,850	550,000	1,450,000	6,083,688	3,234,210	1,024,640		
1908	26,300,706	5,078,036	9,478,000	1,605,000	500,850	550,000	1,450,000	6,083,688	3,234,210	1,024,640		
1909	26,486,706	5,111,741	9,478,000	1,605,000	500,850	550,000	1,450,000	6,083,688	3,234,210	1,024,640		
1910	26,262,566	5,068,731	9,478,000	1,605,000	266,000	550,000	1,450,000	6,083,688	3,234,210	1,024,640		
1911	27,656,856	5,337,560	9,478,000	1,605,000	266,000	550,000	1,450,000	6,083,688	3,234,210	1,024,640		
1912	27,667,856	5,339,898	9,478,000	1,605,000	266,000	550,000	1,450,000	6,083,688	3,234,210	1,024,640		
1918	30,673,872	5,900,757	5,000,000	4,878,000	850,000	2,980,000	266,000	550,000	1,450,000	5,949,933	2,711,621	1,883,318
1914	30,174,611	5,800,084	5,000,000	4,878,000	850,000	3,218,280	266,000	550,000	1,450,000	5,949,933	2,627,684	1,887,714
1918	18,526,000	3,351,028	4,500,000	3,500,000	-----	-----	266,000	260,000	1,000,000	5,000,000	300,000	1,100,000
1919	13,926,000	1,905,077	4,500,000	2,500,000	-----	-----	266,000	260,000	1,000,000	3,000,000	200,000	1,000,000
1920	25,066,000	1,794,646	5,900,000	4,500,000	-----	2,400,000	266,000	-----	1,200,000	6,000,000	400,000	2,000,000
1921	21,000,000	2,347,214	2,500,000	4,498,000	-----	11,500,000	266,000	-----	400,000	6,000,000	400,000	2,000,000
1922	26,404,000	2,185,128	2,500,000	4,438,000	-----	6,500,000	266,000	1,500,000	400,000	6,000,000	400,000	2,000,000
1923	70,398,000	4,280,198	2,500,000	4,398,000	-----	16,000,000	-----	2,500,000	-----	46,000,000	-----	-----
1924	61,115,000	3,202,426	-----	4,398,000	-----	21,800,000	-----	2,500,000	-----	32,417,000	-----	-----
1925	102,331,000	4,905,039	4,000,000	4,000,000	-----	22,331,000	-----	3,500,000	-----	69,000,000	-----	-----
1926	98,220,000	3,182,328	4,000,000	3,920,000	-----	21,800,000	-----	3,500,000	-----	65,000,000	-----	-----
1927	83,520,000	3,273,984	11,600,000	3,420,000	-----	10,500,000	-----	4,000,000	-----	54,000,000	-----	-----
1928	89,000,000	3,488,800	7,500,000	8,000,000	-----	14,500,000	-----	7,500,000	-----	51,500,000	-----	-----
1929	133,000,000	5,213,600	6,000,000	8,000,000	-----	25,000,000	-----	10,000,000	-----	84,000,000	-----	-----
1930	151,850,000	5,952,520	6,800,000	8,000,000	-----	35,450,000	-----	14,800,000	-----	90,000,000	-----	-----
1931	198,146,000	7,688,884	4,000,000	9,500,000	-----	49,645,000	-----	15,000,000	-----	118,000,000	-----	-----

¹ Includes Calais-Dover service, 1857-1914, and reimbursement of Suez Canal dues, 1913-1921, not shown in table.
² Converted to American currency at the par rate of \$0.193 to the franc for the years from 1851 to 1913; \$0.1952 for 1914; \$0.178 for 1918; \$0.1368 for 1919; \$0.0704 for 1920; \$0.0746 for 1921; \$0.082 for 1922; \$0.0808 for 1923; \$0.0524 for 1924; \$0.0477 for 1925; \$0.0324 for 1926; and \$0.0392 for 1927-1931.
³ Includes speed bounty, 1900-1922.
⁴ Included under Mediterranean services.
⁵ Included under New York-Mexico service.

FRANCE

MAIL PAY TO "FREE" COMMERCIAL VESSELS

The compensation paid to "free" (nonsubsidized) commercial vessels for carrying mail rests upon seven laws and decrees, the latest of which is the decree of March 28, 1928. According to this decree the rates are:

1. For a distance not exceeding 300 nautical miles, 0.85 franc per kilo.
2. For distances between 300 and 1,500 nautical miles, 2.25 francs per kilo.
3. From Europe to North America, 3.50 francs per kilo.
4. For distances from 1,500 to 6,000 nautical miles, 4.55 francs per kilo.
5. For distances beyond 6,000 nautical miles, 6.80 francs per kilo.

The basic laws and decrees referred to are:

1. Article 26 of the law of August 22, 1791, fixing the compensation allowed the captains of packets departing for the colonies for carrying letters.¹⁹
2. Articles 1 and 7 of the decrees of the consuls (April 9, 1802) confirming the above law.²⁰
3. Article 4 of the decree of July 12, 1856, fixing the compensation to be paid to captains of ordinary commercial vessels for carrying newspapers and other printed matter.²¹ The authorized amount was 1 franc per kilo.
4. Article 57 of the finance law of April 22, 1905, modifying the compensation paid to free vessels for carrying the mails.²²
5. Article 5 of the law of August 14, 1907, further modifying the rate of compensation.²³
6. Article 40 of the finance law of December 19, 1926, revising the compensation for the carrying of mails.²⁴

CONSTRUCTION AND NAVIGATION BOUNTIES

The fundamental cause of public aid in the form of construction and navigation bounties to French vessels lay in the loss of Alsace and Lorraine, with their rich iron-ore deposits, at a time when the metal ship was being rapidly developed. Official recognition of the need for public aid came at about the time when development of the Thomas process made possible large production of steel at reduced costs by the basic patents of Bessemer. This made possible the construction of large vessels, which, in turn, made possible the movement of basic materials in large quantities and at low freight rates, thus completing the great transformation of commercial shipping from itinerant trader to large-scale industrial agency.

By the law of May 19, 1866, France abolished its discriminating duties on imports. Article 5 of this law provided that three years

¹⁹ Recueil des Lois et Règlements concernant la Marine Marchande française, p. 11. Central Committee of French Shipowners, 1921.

²⁰ Idem, p. 21.

²¹ Idem, p. 197.

²² Idem, p. 585.

²³ Idem, p. 645.

²⁴ Journal Officiel of Dec. 19, 1926, p. 13162.

after its promulgation the surtax collected on goods imported into France in other than French vessels should cease; but article 6 authorized the French Government to take action against the vessels of any nation that should subject French vessels to charges not exacted from vessels of other nationalities, such retaliatory action to take the form of compensation to French vessels for disadvantages sustained by them in such foreign countries.

PRELIMINARY WORK AND ORGANIZATION

The 15 years following passage of the law of 1866 saw many events of great importance to the French shipping industry. First came the Franco-Prussian War. In 1875 the new constitution of France was adopted. In 1878 the Thomas process of steel manufacture was invented. In 1879 the first express type trans-Atlantic liner, the *Arizona*, went into service.

Official recognition of conditions resulted in the law of January 30, 1872, by which the discriminating duties in favor of French vessels, which had been abolished by the act of 1866, were reestablished. The net result was an increase of price of ships, higher freight rates, and threats of reprisals by other nations. The act had been passed as a possible means of public aid without incurring public expenditures. On July 28, 1873, it was repealed without a dissenting vote, and discriminating duties as well as import duties on foreign ships were abrogated. Article 2 of the act of July 28, 1873, provided for the appointment of a commission to study the most efficacious means of aiding the merchant marine and insuring its prosperity.

THE DUPUY DE LOME REPORT

This commission consisted of 33 members under the chairmanship of the Minister of Commerce and sat for nine months. The membership included several members of the old Assembly, leading men from the shipbuilding and shipowning industries, representatives of principal industries, representatives of chambers of commerce, the director of customs, and representatives of the navy. At the end of the sessions the final review of the situation and further study was intrusted to M. Dupuy de Lome, vice president of the Association of Mediterranean Shipyards, who was thought by the commission to be especially well equipped to indicate the proper procedure. This action was important in the light of what followed.

The work of M. Dupuy de Lome as embodied in the report of the commission on July 15, 1874, forms the basis for subsequent French shipping legislation. The report covered the complete cycle of reforms needed by the French merchant marine and of administrative and legislative burdens imposed upon it officially.

One of the principal subjects treated was the necessity for the revision of the Code of Commerce, which rested, so far as shipping was concerned, upon the ordinance of 1681, and which had long been subject to criticism as being out of accord with the needs of modern shipping. In 1865 the Minister of Marine had entrusted to a commission of competent men the revision of the code, and this was under consideration when the Franco-Prussian War came. The commission

of 1873 took up this work again, giving especial attention to the question of ship mortgages.

Another important subject for consideration was that of vessel transfer, replacement, and commercial fees, the net results of which were, it was stated, to disperse rather than concentrate capital and ownership in accordance with modern industrial progress.

PORT COMMITTEES

During the eight years preceding the adoption of the basic law of 1881 there was much thought and activity in connection with arriving at a solution of the shipping problem, which had become of national importance. Many conflicting sentiments had to be adjusted. The ship operators were not always in harmony in matters that had to be solved; some desired a recasting of the maritime regulations in favor of free ships, while others preferred a reestablishment of the national discriminating-duty laws.

Efforts of Havre and Nantes in 1875 to get all conflicting opinion together for a discussion of the entire situation led to the appointment of a committee in each port of France to study the situation as reported by M. Dupuy de Lome. The committees were to appoint delegates to a central congress in Paris which convened in April, 1876, and prepared a memorial to the Government asking a moderate protection either through national surtaxes and entrepôt charges or by direct money aid, the memorial stating that the subsidy principle was not new in French legislation and presenting figures of current subsidies for other objects carried by the budget. The memorial ended by declaring that the merchant marine needed protection in an amount of 8,000,000 to 9,000,000 francs annually (\$1,544,000 to \$1,737,000 at par of that day).

PARLIAMENTARY MERCHANT MARINE BLOC

In 1875 a group of over 250 members (85 Senators and 168 Deputies) constituted themselves a faction to take in hand the interests of the merchant marine. The question was broached at the opening of Parliament in 1876 with a proposal for a law based upon the following broad lines: (1) Relative to construction, an allocation should be made based upon the difference in costs of construction in French and foreign yards; (2) relative to operation in international trade, 1 franc (\$0.193) per man per day was proposed as an operating subsidy.

These basic proposals followed closely the conclusions of M. Dupuy de Lome, and were submitted to the Senate. The proposals laid before the Chamber of Deputies had been inspired by the work of the commission of 1873.

ENACTMENT OF FIRST BOUNTY LAW

The Government did not accept all of the suggested program. The general proposal contained, besides ship-construction, equipment, and navigation bounties, a number of additional matters relative to exemption from pilotage, methods of ship survey, and others intended to ease the burdens on shipping. The commission rejected the equipment-bounty proposals and retained those for higher rates in construction bounties.

After further discussion the commission heard the representatives of the ports of Havre, Nantes, Bordeaux, and Marseille, conferred with the Ministers of Commerce and Finance, and then drew up a project as indicated by the Chamber of Deputies and recommended by the Government. After a supplementary report on March 20, 1880, the Chamber passed the bill and sent it to the Senate. This body did not take it under consideration until January, 1881, when, with some changes, which were not contested, the bill was passed on January 29, 1881, and promulgated on January 30.

Thus, briefly, was developed the first comprehensive ship-bounty law of France, which formed the basis for much subsequent legislation for shipping in France and other countries.

CONSTRUCTION BOUNTIES

The ship-construction bounty system of France has passed into history. The first construction bounty was paid in 1881 and the last in 1920, a period of 40 years during which 245,111,000 francs (between \$46,000,000 and \$47,000,000) was expended on the system.

The construction-bounty system was covered by the laws of January 29, 1881, January 30, 1893, April 7, 1902, April 18, 1906, and February 28, 1912. Prior to enactment of the law of 1881 France, by the law of May 19, 1866, abolished discriminating-duty laws on foreign tonnage and cargo entering French ports. This placed the French shipowner at a disadvantage, and, in order to offset this, provision was made for the admittance of foreign-built vessels to French registry at a nominal tax—2 francs per ton. This in turn exposed the French shipbuilding industry to serious competition despite a provision in its favor by which all shipbuilding materials were admitted free.

CONSTRUCTION-BOUNTY RATES

Rates and principal conditions of the construction bounties are set forth in Table 24.

TABLE 24.—FRENCH CONSTRUCTION-BOUNTY RATES UNDER VARIOUS LAWS

Bounty	Law of Jan. 29, 1881		Law of Jan. 30, 1893		Law of Apr. 7, 1902		Law of Apr. 18, 1906 ¹	
	Francs	Equi- valent in United States cur- rency ²	Francs	Equi- valent in United States cur- rency ²	Francs	Equi- valent in United States cur- rency ²	Francs	Equi- valent in United States cur- rency ²
Hulls:								
Iron or steel.....per gross ton...	60.00	\$11.58	65.00	\$12.55	65.00	\$12.55	\$145.00	\$27.99
Metal and wood.....do.....	40.00	7.72	40.00	7.72	40.00	7.72	40.00	7.72
Wood.....do.....	20.00	3.86	40.00	7.72	40.00	7.72	40.00	7.72
Engines, boilers, and auxiliary machinery:								
New construction...per 100 kilos...	12.00	2.32	15.00	2.90	15.00	2.90	27.50	5.31
Repair material.....do.....	8.00	1.54	15.00	2.90	15.00	2.90	20.00	3.86

¹ Hull bounties decreased annually for first 10 years by 4.50 francs (\$0.87) per ton for steamers and by 3 francs (\$0.58) for sailing vessels. Vessels built for postal subvention services received the construction-bounty rates of the law of Jan. 30, 1893. The law of Feb. 28, 1912, supplemented this act.

² Converted at the pre-war par rate of \$0.193 to the franc.

³ Based on "total gross tonnage," which includes certain spaces, such as those used for water ballast, galleys, and auxiliary equipment, excluded from gross-tonnage measurement.

⁴ Hulls of 200 gross tons or more; those less than 200 tons, 10 francs per ton.

⁵ Hulls of 150 gross tons or more; those less than 150 tons, 30 francs per ton.

⁶ Bounty on new boilers and engines decreased annually by 0.75 franc (\$0.145) per 100 kilos (220.46 pounds) for 10 years.

COST DIFFERENTIALS

Construction-bounty rates were sharply increased under the law of April 18, 1906. Further, this law was passed after the law of 1902 had been in force only four years. These changes were made in an effort to correct certain inherent evils that had become apparent in the administration of the system.

The purpose of both construction and navigation bounties was to place French shipbuilders and shipowners on a parity with those of other nations. The early construction bounties under the first three laws were designed to balance the customs duties on imported materials. They were paid directly to the builders in connection with the construction of vessels for any account, foreign or domestic.

This did not equalize the price of vessels to the prospective owner, however. French shipbuilders stated three reasons for the high prices (which averaged 50 per cent more than the price of English-built vessels)—(a) the price of primary material used in shipbuilding, both domestic and equalized (duty-free) foreign; (b) the smaller output of the French workman; and (c) the heavy overhead charges that had to be carried by the relatively small number of vessels built.²⁵

The extra price paid by the purchaser of French-built vessels was to be absorbed by the navigation bounties. The French shipowner was to pay more than world-market prices for French-built vessels and the Government was to compensate him for the differential, based upon the operation of the vessel. The administration of the differential led to the diversion of considerable capital, and correction of this was the object of the 1906 law.

ESTABLISHMENT OF OFFICIAL DIFFERENTIAL

In order that the proper amount of bounty could be determined for this purpose shipbuilders were invited to state under what conditions they would build vessels to be quoted at equal prices with foreign vessels. The French builders replied that an increase of 100 francs (\$19.30) per ton free of the deductions that had previously been made in favor of maritime charitable institutions would enable them to meet outside competition. Adding the previous rate of 65 francs, the total builders' estimate was 165 francs, or \$31.85, per ton as a differential.

The committee considering the new measure compared the costs of 49 vessels built in France from 1899 to 1902 with 37 vessels built in the United Kingdom in 1902 and 1903 and concluded that the actual difference in cost was 131 francs, or \$25.28, per ton. The directors of customs worked out the prices between British and French built vessels and found that the average difference was 175 francs, or \$33.78, per ton.

The committee reviewed the findings of the directors of customs and declared that the basis of comparison had not been exact and that various technical features had not been taken into consideration, concluding that the actual difference was more nearly 131 francs,

²⁵ The French Mercantile Marine Law of 1906, and its Predecessors; British Diplomatic and Consular Reports, Miscellaneous Series No. 651, May, 1906, pp. 7-9.

or \$25.28. However, recognizing this as a narrow margin and having in mind the crisis in French yards and the necessity for added protection for the French builders, the committee fixed upon the sum of 172.50 francs, or \$33.29, as the official cost differential upon which calculations were to be made. This was to include the construction bounty on both hull and machinery.

EXPENDITURES FOR CONSTRUCTION BOUNTIES

The annual and total expenditures made under the various construction bounty laws of France are stated in Table 25.²⁶

²⁶ This tabulation is a condensed presentation of the entire system. The research student who may desire to make detailed analysis of the French construction and navigation bounty system should consult, first, the final accounts of the Ministry of Commerce, beginning with 1881, reported to the parliamentary session of 1884 and to each session thereafter. These reports, in addition to the summarized accounts stated under the respective appropriation account chapters, carry in their annexes elaborate detailed tabulations of the bounty payments of each year, presented by the vessel groupings under age, material, type of propulsion, and domestic or foreign construction, as well as graphic presentation of the trend of the entire system.

Secondly, since 1896 the commerce and navigation statistics of France have been published in two volumes, of which volume 1 presents the movement of commerce, while volume 2 is devoted to navigation and the manner in which French water-borne trade is carried by various nationalities of vessels. Volume 2 for 1910 carries a summary of the navigation and construction bounty system from 1893 to 1910. From 1910 onward the summaries are continued progressively.

TABLE 25.—TOTAL FRENCH EXPENDITURES FOR CONSTRUCTION BOUNTIES UNDER LAWS OF 1881, 1893, 1902, 1906, AND 1912

Year	Date of law	Total bounties		Iron and steel vessels		Wood and composite vessels		Machinery	
		France	Equivalent in United States currency 1	Bounty, francs	Tonnage participating	Bounty, francs	Tonnage participating	Bounty, francs	Kilos weight participating
1881	Jan. 29, 1881	950,898	\$183,523	586,582	9,776	95,860	8,701	208,956	2,555,914
1882	do	4,540,695	876,334	3,491,208	58,186	120,112	10,315	929,276	8,186,923
1883	do	3,160,290	609,937	2,304,986	38,416	96,964	8,801	758,346	6,890,248
1884	do	4,484,988	865,598	3,280,077	54,667	142,882	11,903	1,002,009	9,477,424
1885	do	1,129,151	217,926	694,423	11,573	120,202	9,285	314,526	3,053,867
1886	do	3,005,618	580,084	1,902,468	31,707	98,200	8,640	1,004,950	8,808,016
1887	do	1,457,481	281,293	938,587	15,943	67,523	6,985	451,371	4,203,853
1888	do	2,216,958	427,872	1,406,923	24,442	88,111	8,890	691,924	6,056,267
1889	do	3,054,503	589,519	2,120,502	35,341	77,804	7,116	856,667	7,400,620
1890	do	2,797,188	539,856	1,834,653	30,577	122,772	9,679	839,763	7,535,911
1891	do	2,800,918	540,577	1,894,373	31,572	123,009	11,494	783,536	6,960,362
1892	do	2,018,384	389,548	1,189,533	19,825	123,853	11,761	704,098	6,388,124
1893	Jan. 29, 1881, and Jan. 30, 1893	2,153,849	415,602	1,169,984	17,990	421,437	13,637	583,428	3,863,708
1894	Jan. 30, 1893	2,080,302	403,235	887,518	14,223	387,607	12,385	814,117	5,653,691
1895	do	2,800,672	540,529	1,325,350	21,239	433,925	14,050	1,041,397	7,231,930
1896	do	4,106,349	792,525	2,631,917	42,178	449,844	14,631	1,024,583	7,116,200
1897	do	5,145,810	993,141	3,711,927	50,484	567,700	18,079	896,183	6,015,165
1898	do	4,613,844	890,471	2,928,351	45,051	448,822	13,552	1,236,671	8,244,480
1899	do	7,064,194	1,363,389	5,403,181	83,126	1,243,488	12,361	1,243,525	8,200,166
1900	do	9,290,520	1,794,228	7,594,534	116,839	437,184	13,007	1,204,802	8,432,015
1901	do	9,526,555	1,838,625	7,833,752	125,541	496,596	15,112	1,196,207	9,309,997
1902	do	16,254,841	2,944,184	13,357,407	217,904	527,813	16,329	1,309,621	9,243,367
1903	do	5,976,272	1,153,420	4,033,744	66,018	594,036	18,483	1,347,802	9,559,524
1904	do	8,947,823	1,609,029	6,361,160	104,110	498,385	15,359	1,788,272	12,982,783
1904	do	5,685,052	1,034,104	3,693,915	60,456	463,819	14,728	1,210,318	8,683,816
1905	do	2,983,293	568,052	1,690,904	27,675	132,516	4,702	1,158,753	9,218,107
1906	Apr. 7, 1902, and Apr. 18, 1906	2,841,304	1,123,948	2,026,393	19,964	297,182	7,306	887,729	3,053,087
1907	do	790,048	151,048	450,227	6,927	10,803	408	320,018	2,138,467
1907	do	5,524,098	1,218,630	4,376,572	50,031	294,053	9,394	853,473	5,451,181
1908	do	1,709,840	327,881	1,202,939	19,686	28	28	506,873	3,594,843
1908	do	11,130,995	2,478,281	9,052,369	132,483	355,743	11,123	1,722,883	13,674,515
1909	do	200,600	37,817	10,914	167	875	29	188,811	128,840
1909	do	9,384,317	1,840,888	7,631,038	50,730	414,079	13,007	1,338,300	5,216,120
1910	do	199,545	37,045	5,131	79	260	8	194,164	12,943
1910	do	8,613,030	1,700,827	6,808,885	67,180	417,985	12,908	1,380,160	56,600
1911	do	190,014	35,014	7,910	122	42	1	152,602	1,017,747
1911	do	10,955,432	2,145,397	8,563,851	68,537	478,127	14,434	1,923,454	8,044,837
1912	do	199,736	37,045	1,068	27	27	1	198,078	1,192,045
1912	do	18,911,356	3,682,660	15,203,039	125,556	503,239	14,688	3,204,477	13,636,387

1913.....	Apr. 18, 1906, and Feb. 28, 1912.....	{ 220, 278 } 17, 833, 514	{ 3, 484, 381 } 23, 679	{ 73, 985 } 14, 205, 897	{ 1, 210 } 121, 618	882 504, 273	28 15, 439	145, 408 8, 123, 344	1, 081, 267 13, 327, 719
1914.....	do.....	{ 15, 672, 177 } 14, 499, 093	{ 3, 083, 831 } 2, 606, 937	{ 1, 988 } 12, 749, 498	{ 93 } 103, 910	190 297, 784	9 9, 610	21, 801 2, 624, 895	152, 489 11, 793, 833
1915.....	Feb. 28, 1912.....	5, 209, 698	894, 298	11, 960, 653	108, 370	65, 548	2, 133	2, 472, 892	11, 371, 212
1916.....	do.....	1, 792, 044	310, 028	4, 299, 646	42, 886	58, 866	1, 806	911, 186	4, 238, 301
1917.....	do.....	1, 804, 179	232, 144	1, 407, 657	12, 914	43, 933	1, 344	340, 454	1, 604, 295
1918.....	do.....	591, 595	80, 926	1, 048, 166	25, 960	31, 082	800	224, 081	2, 753, 475
1919.....	do.....	680, 714	47, 922	495, 725	23, 841	-----	-----	94, 840	2, 339, 030
1920.....	do.....	-----	-----	60, 245	-----	-----	-----	133, 033	6, 189, 299
Total.....	-----	245, 111, 156	46, 854, 541	186, 450, 477	2, 411, 019	11, 258, 098	422, 799	47, 401, 681	801, 477, 008

¹ Converted at the par rate of \$0.193 to the franc for the years 1881 to 1913; \$0.1952 for 1914; \$0.1798 for 1915; \$0.1697 for 1916; \$0.173 for 1917; \$0.178 for 1918; \$0.1398 for 1919; and \$0.0704 or 1920.

NAVIGATION BOUNTIES

The navigation-bounty system was instituted under the same laws that provide for construction bounties, namely, those of January 29, 1881, January 30, 1893, April 7, 1902, April 18, 1906, and February 28, 1912.

LAW OF JANUARY 29, 1881

Under the law of January 29, 1881, French-built vessels were allowed 1.50 francs (\$0.29) per net ton for each 1,000 miles traveled during the first year's operation under the law, this amount decreasing annually by 7.50 centimes (\$0.014) for wood and composite vessels and by 5 centimes (\$0.01) for iron and steel vessels, while foreign-built vessels were entitled to only 50 per cent of these rates. Vessels built in France according to plans approved by the Navy received an increase of 15 per cent above these rates.

Navigation bounties under this law were limited to vessels plying in the overseas trade.

COST DIFFERENTIALS

According to a report made to the Chamber of Deputies May 28, 1892, by Jules Siegfried, embodying the views of a commission of 22 members appointed to investigate the results of the law of 1881, the navigation-bounty principle was designed to compensate the French ship for the extra cost of French construction, provided the ship would earn the bounty by actual performance. The difference between navigation-bounty rates allowed French-built and foreign-built vessels was 75 centimes. On a time, mileage, net-tonnage, and average 10-year performance basis, it was estimated by the lawmakers in 1881 that in 10 years a ship would earn a navigation bounty of 125 francs (\$24) per gross ton. The cost of a French ship was 420 francs (\$81) per gross ton. The cost of a similar English ship was 300 francs (\$58) per gross ton—a difference of 120 francs, or \$23. Theoretically, therefore, French ships during the 10-year limit of the law could earn this differential by normal activity. (This differential is considerably lower than the figures presented on p. 134.)

In the matter of navigation bounties the commission stated that continuation of the navigation-bounty system would increase the proportions of cargo carried in French ships and that in 15 or 20 years French ships would carry two-thirds to three-fourths of French commerce.

BASIS OF MEASUREMENT

Navigation bounties under the law of 1881 were granted on the basis of net tonnage. Inasmuch as the ship paid port charges on the same basis, there arose the natural conflict of interest between collection of the largest possible navigation bounty and payment of the lowest port charges. All foreign competitive fleets were designed with an eye to reduced net tonnage. All French vessels were built to greater net tonnage, thereby placing the French owner at a disadvantage as to port charges. Reduction in net-tonnage measurement by an act of 1889 was further objected to on the basis of consequent reduction of navigation bounties. The commission therefore recommended a change to a gross-ton basis, which was adopted in succeeding laws.

LAW OF JANUARY 30, 1893

Under the law of January 30, 1893, the bounty rates were lowered, but a gross-ton basis was adopted which increased the tonnage entitled to the bounty. Under this law French-built steam vessels were allowed 1.10 francs (\$0.212) per gross register ton per 1,000 miles. The bounty to sailing vessels was increased, however, from 1.50 francs (\$0.2895) to 1.70 francs (\$0.328) per gross register ton per 1,000 miles. These bounties were reduced annually as follows: Wooden steamers, 6 centimes (\$0.0116); iron or steel steamers, 4 centimes (\$0.0077); wooden sailing ships, 8 centimes (\$0.0154); and iron or steel sailing ships, 6 centimes (\$0.0116). No vessel more than 15 years old could receive a bounty.

Vessels in the oversea trade (*au long cours*) received the full rates, while those in the international coasting trade (*cabotage international*) received two-thirds of the rates specified. Under the law of 1881 vessels in the international coasting trade received no navigation bounty. Vessels built according to plans approved by the Ministry of the Marine received a bounty 25 per cent above the regular rate, instead of 15 per cent as under the law of 1881. All vessels receiving navigation bounties were subject to requisition in time of war—a new feature.

The law of 1893 abolished the navigation bounty to all foreign-built vessels, to French-built sailing vessels of less than 80 gross tons, and to French-built steamers of less than 100 gross tons.

LAW OF APRIL 7, 1902

The law of April 7, 1902, provided two classes of navigation bounties, one for French-built ships and the other for vessels of foreign construction. The bounty for the former was designated a "*prime à navigation*" and for the latter a "*compensation d'armement*," but the practical effect was the same in both cases. It will be noted, therefore, that it was deemed expedient to revert to the policy, even if under a new name, of paying navigation bounties to foreign-built ships operated under the French flag.

NAVIGATION BOUNTIES TO FRENCH-BUILT SHIPS

The navigation bounties (*primes à navigation*) granted by the law of 1902 were limited to French-built merchant ships (sail as well as steam) operating under the French flag in the overseas and international coasting trades, the latter receiving only two-thirds of the full bounty. These bounties were payable only to ships of at least 100 tons gross register and less than 15 years old.

These bounties were to be paid to any vessel constructed in France during the operation of the law for a period of 12 years after its admission to French registry. This accounts for the fact that as late as 1918 considerable amounts were expended in navigation bounties under the law of April 7, 1902. Under the law of January 29, 1881, the navigation bounty was payable only during the period of the operation of the law.

Rates of bounty

The navigation bounty for steamships of not more than 3,000 tons gross register was fixed at 1.70 francs (\$0.328) per ton per 1,000 miles of operation during the first year, with an annual reduction of 4 centimes (\$0.0077) during the first four years, 8 centimes (\$0.0154) for the next four years, and 16 centimes (\$0.0308) for the next four years. For steamers of 3,000 to 7,000 tons the basic rate of 1.70 francs was reduced by 1 centime (\$0.00193) for every 100 tons or part thereof in excess of 3,000 tons, but the rate in the first year could not be less than 1.50 francs (\$0.2895) per ton. Vessels of more than 7,000 tons were to receive the same bounty as vessels of 7,000 tons.

For sailing vessels the maximum bounty in the first year was to be the same as for steamships, namely, 1.70 francs (\$0.328) per ton per 1,000 miles of operation, but the annual decrease was to be 2 centimes (\$0.0039) for the first four years, 4 centimes (\$0.0077) for the next four years, and 8 centimes (\$0.0154) for the last four years of the act. Sailing vessels of more than 600 tons net, but less than 1,000 tons, were to receive the full bounty less 10 centimes (\$0.0193) for each 100 tons or fraction thereof above 600 tons, while sailing vessels of over 1,000 tons were to receive the same bounty as steamships of 3,000 tons or less.

A deduction of 5 per cent was made from the full bounty if the vessel had a speed of 11 but less than 12 knots, and of 10 per cent when the speed was less than 11 knots. Vessels of less than 10 knots were barred from the bounty.

Sailing vessels of French construction operating under the French flag at the time the law of April 7, 1902, went into effect were given the privilege of continuing under the navigation bounty provided in the law of January 30, 1893, but such vessels must carry during at least two-fifths of the entire voyage cargo representing in freight tons at least two-thirds of their net tonnage.

A deduction of 6 per cent from all navigation bounties was to be made for the benefit of seamen's charitable institutions.

EQUIPMENT BOUNTIES TO FOREIGN-BUILT SHIPS

The act of 1902 restored navigation bounties to foreign-built vessels, but the bounty took the form of an equipment bounty (compensation d'armement) based upon number of days in commission and not upon length of voyage. The new bounty was granted only to foreign-built seagoing steamships of more than 100 gross tons, constructed of iron or steel, engaged in the overseas or international coasting trades, and equipped and owned in France.

This bounty was based on total gross tonnage²⁷ of vessel and number of days in commission, and consisted of a daily allowance of 5 centimes (\$0.0097) per total gross ton up to 2,000 tons, 4 centimes (\$0.0077) additional for each ton up to 3,000 tons, 3 centimes

²⁷ The term "total gross tonnage" is used for the first time in the law of April 7, 1902, and is to be distinguished from "gross tonnage" by the fact that it includes spaces used for water ballast, galleys, etc., which are excluded from gross tonnage.

(\$0.0058) additional for each ton up to 4,000 tons, 2 centimes (\$0.0039) additional for each ton above 4,000 tons and up to 7,000 tons, no allowance being made for tonnage in excess of 7,000. Payment was limited to 300 days per year.

Vessels in the international coasting trade received only two-thirds of the full bounty.

Although this bounty was intended primarily for foreign-built vessels operating under the French flag, the law of April 7, 1902, provided that steamships of French construction should have the privilege, under conditions to be fixed by administrative regulations, of choosing for each voyage between the equipment bounty and the navigation bounty.

The requirements as to age and speed of vessels were the same for equipment bounties as for navigation bounties. Vessels more than 12 years old and those of less than 12 knots could not receive either bounty. Other classes of vessels debarred from the bounties were the following:

Vessels which prior to the promulgation of 1902 were registered after their seventh year;

Vessels engaged in overseas and domestic fishing or pleasure navigation, as well as those receiving postal subventions;

Vessels engaged exclusively in reserved navigation;

Vessels making a voyage of less than 125 miles between a French and a foreign port;

Vessels engaged in reserved navigation which make stops in foreign ports without discharging or loading merchandise representing in tons of freight at least one-third of their net tonnage;

Vessels which between their departure from a French port and their return thereto have not carried a cargo representing in freight tons at least one-third of their net tonnage, and that upon at least one-third of the total voyage;

Vessels which, having obtained French registration, have given it up and then secured it a second time;

Vessels of foreign origin which were mortgaged for more than one-half of their value at the time of their registration in France or during six months thereafter.

Vessels operating on the same voyage in both the international and the national coasting trade were entitled to the navigation or equipment bounty for the time or for the voyages in which goods had been carried in international trade if the total cargo for foreign destination or of foreign origin on board at the time of passing through the Strait of Gibraltar represented in freight tons at least one-third of the net tonnage of the vessel.

Vessels in the international coasting trade plying in the same voyage between ports of France and Algeria and a port in northern Europe were given the bounty if the total amount of cargo of foreign origin or for foreign destination on board when the vessel passed through the Strait of Dover represented in freight tons at least one-third of the net tonnage of the vessel.

Vessels operating in the overseas trade with a French or Algerian port as the port of departure or destination were entitled to a portion of the navigation or the equipment bounty for the voyage or voyages

between French and Algerian ports in case they stopped at one or more French or Algerian ports and loaded or discharged only overseas merchandise in such ports. The portion of the bounty granted was to be equal to the ratio between the number of tons of overseas freight on board and the net tonnage of the vessel. If the ratio was 100 per cent or more, the whole amount of the bounty should be paid.

LIMITATIONS OF LAW OF 1902

The law of 1902 was enacted for a period of 12 years, and unlike the preceding two laws limited the total tonnage of vessels which might benefit by it as well as the total amount of bounty to be granted. The tonnage of steamships admitted to the benefit of this law, in addition to the tonnage receiving the benefits of the prior law, was limited to 500,000 gross tons, of which 200,000 tons might be built abroad; the tonnage of sailing vessels was limited to 100,000 gross tons.

The total amount payable in navigation and equipment bounties during the operation of the law was fixed at 150,000,000 francs (\$28,950,000), of which not more than one-tenth could be paid to sailing vessels.

LAW OF APRIL 18, 1906

The law of April 18, 1906, continued the system of equipment bounties to cover navigation bounties for both French-built and foreign-built vessels. Under the law of 1902 this form of bounty had covered only foreign-built vessels.

No limit was placed on the tonnage of vessels receiving bounties under this law. Under the law of 1902 a bounty was not paid on tonnage in excess of 7,000 tons.

The 1906 bounties were on the whole slightly lower than those provided in the law of 1902, but they were net.

RATES OF BOUNTY

The equipment bounties of the law of 1906 varied with the tonnage of vessel, days in commission, character of propelling power (whether sail or steam), speed, quantity of cargo, and average daily run. They were paid for the entire time the ship was in commission and were not limited to 300 days per year, as was the case under the law of 1902.

For steamers the grant was 4 centimes (\$0.0077) per ton per day for the first 3,000 tons, 3 centimes (\$0.0058) additional for each ton between 3,000 and 6,000 tons, and 2 centimes (\$0.0039) additional for each ton between 6,000 and 7,000 tons. No bounty was paid on tonnage in excess of 7,000 tons.

For sailing vessels the amount granted was 3 centimes (\$0.0058) per ton per day up to 500 tons, 2 centimes (\$0.0039) additional for each ton between 500 and 1,000 tons, and 1 centime (\$0.00193) additional for each ton in excess of 1,000 tons.

To receive the full bounty the vessel was obliged to show that from its departure from a French port until its return to a French port it had carried cargo representing in freight tons at least one-half of its net register tonnage during at least one-half of the voyage,

the rate of bounty being reduced by at least 10 per cent if the vessel failed to meet these requirements. No equipment bounty, however, was paid to a vessel whose cargo tonnage was not equal to at least one-third of its net register tonnage during at least one-third of its voyage.

Article 4 of the law of 1906 provided that equipment bounties should be paid to all seagoing vessels of French or foreign construction, less than 12 years old, having a total gross tonnage of at least 100 tons, and operated in the overseas or international coasting trades. An exception to this age limit was made in the case of sailing vessels which were constructed in accordance with the law of January 30, 1893, and admitted to French registry before November 1, 1901, and which complied with the other provisions of the law. Such vessels were entitled to equipment bounty at the rate of 3 centimes (\$.0058) per gross ton per day in commission for a period of three years from the time they ceased to benefit under the law of 1893. They were required, however, to show that they carried during at least two-fifths of their total voyage cargo representing in freight tons at least two-thirds of their net register tonnage.

SPEED AND MILEAGE REQUIREMENTS

The former navigation bounty, being based upon the number of miles operated and the speed of the vessel, encouraged the use of fast ships and thereby performed a useful function. This feature was extended in the law of 1906, which granted an extra bounty of 10 per cent for ships showing a speed of at least 14 knots on trial trips with half load, 20 per cent extra for ships with a trial speed of 15 knots, and 30 per cent extra for ships with a trial speed of 16 knots. On the other hand, a deduction of 15 per cent from the basic rate was made in the case of vessels having a speed of less than 10 knots, while ships of less than 9 knots were excluded from participation in these bounties.

A minimum average daily run between the date of fitting out and the date of laying up was also required of ships seeking the equipment bounty provided by the law of 1906. The requirements may be summarized as follows:

Steamships:	Miles
14 knots and over-----	90
12 to 14 knots-----	85
11 to 12 knots-----	65
9 to 11 knots-----	55
Sailing vessels-----	35

METHOD OF COMPUTING BOUNTIES

In computing the average daily run no account was taken of the days on which the vessel was stationary from unforeseen causes (*force majeure*). Details as to methods of computing distance were promulgated by decree of September 9, 1902, and details as to method of computing cargo were promulgated by decree of August 31, 1906.

The procedure followed in recording distance, cargo, tonnage, etc., is interesting. Article 15 of the decree of August 31, 1906, required that the shipowner must supply the required information regarding

the voyage on a declaration filled out in triplicate. These entries were transcribed by the administrator of the maritime inscription or the consul upon a register known as the "registre des traversées," which was kept on board the vessel. After each voyage the collector of customs and the administrators of maritime inscription entered in this register the necessary facts as to cargo and voyage. Payment of the bounty was made by the Ministry of Finance upon written order of the Ministry of Commerce. (Art. 19.)

In determining the rates of equipment bounty the cost of operation of French vessels as compared with vessels under the British flag was the basic factor. The method used is indicated in the following extract from a contemporary British consular report:

In estimating on the subject of equipment bounties the shipping of the United Kingdom was once more made the basis from which the calculations were derived. It appears that not only are the crews more numerous but that they cost more to feed than those on foreign steamships, the cost on a British steamship per head and per day for each member of the crew (officers included) being 1.76 francs (\$0.34), whereas on a French steamer it is 2 francs (\$0.386), or about 13 per cent higher, while on German steamers it is estimated at 1.40 francs (\$0.27) and on Italian and Greek steamers 1 franc (\$0.193). Moreover, in wages, hospital expenses, insurance, material, etc., the French ship has more to pay than foreign vessels, and consequently an equipment bounty is necessary to enable the French shipowner to hold his own.

EXPENDITURES FOR NAVIGATION BOUNTIES

The results of the navigation and equipment bounty system in terms of expenditures under the various laws are shown in Table 26. It should be explained that the tonnage figures include certain duplication of vessels making more than one voyage annually. This procedure makes possible the calculation of average earnings of tonnage actually sailing, but is not a true presentation of the size of the fleet itself. This form is employed for practical purposes. The final appropriations under these acts were those stated for 1930.

TABLE 26.—FRENCH EXPENDITURES FOR NAVIGATION AND EQUIPMENT BOUNTIES UNDER LAWS OF 1881, 1893, 1902, 1906, AND 1912

Year	Date of law	Total bounties		Total tonnage participating	Iron and steel vessels		Wood and composite vessels		Equipment bounty (compensation d'armement)	
		Francs	Equivalent in United States currency ¹		Bounty, francs	Tonnage participating	Bounty, francs	Tonnage participating	Bounty, francs	Tonnage participating
1881	Jan. 29, 1881	2,980,895	\$576,318	230,600	2,166,421	107,474	814,474	123,126		
1882	do	6,458,606	1,246,511	351,955	4,667,891	200,502	1,790,715	151,453		
1883	do	8,465,291	1,633,801	352,171	6,993,082	227,948	1,471,809	124,223		
1884	do	8,589,333	1,667,741	379,665	7,232,270	251,108	1,367,057	128,557		
1885	do	7,567,280	1,460,485	356,014	6,487,427	244,611	1,079,853	111,403		
1886	do	7,578,349	1,462,621	329,027	6,691,635	229,723	886,714	99,804		
1887	do	8,213,482	1,636,202	330,086	7,341,470	239,039	872,012	91,043		
1888	do	8,191,468	1,630,952	321,488	7,605,774	253,277	685,880	68,211		
1889	do	8,486,531	1,637,900	348,858	7,988,934	281,990	497,697	60,866		
1890	do	8,018,590	1,547,589	369,963	7,528,298	300,641	490,292	60,322		
1891	do	7,862,627	1,420,987	384,908	7,038,766	328,507	323,861	59,401		
1892	do	7,278,394	1,404,790	355,477	6,938,556	311,051	339,838	44,426		
1893	Jan. 29, 1881, and Jan. 30, 1893	1,848,679 6,071,808 32,343	1,528,654	275,046 913,881	1,729,848 5,852,312	26,902 861,173	242,123 219,496	118,831 52,708		
1894	do	7,853,937	1,522,052	900,000	7,476,765	830,945	5,441	69,145		
1895	Jan. 30, 1892	8,580,892	1,656,112	1,016,854	8,267,914	954,147	322,078	62,707		
1896	do	9,574,731	1,947,923	938,704	9,322,953	892,838	251,778	45,866		
1897	do	11,332,968	2,187,268	1,005,281	11,071,469	961,031	261,499	45,250		
1898	do	11,800,605	2,277,517	949,182	11,563,790	912,899	236,815	36,283		
1899	do	13,245,824	2,556,444	2,667,987	12,988,776	2,637,000	267,048	30,937		
1900	do	15,287,786	2,950,543	1,113,496	15,011,597	1,079,982	276,189	33,514		
1901	do	18,246,744	3,521,622	1,276,605	17,986,769	1,241,075	269,975	35,530		
1902	Jan. 30, 1893, and Apr. 7, 1902	19,790,683 784,411	3,970,993	1,260,611 33,330	19,628,163 (?)	1,237,855 (?)	162,520 (?)	23,556 (?)		
1903	do	21,204,287 4,405,191	4,942,629	1,180,381 179,147	21,140,064 (?)	1,169,364 (?)	64,223 (?)	11,017 (?)		
1904	do	21,713,631 7,382,563	5,615,565	906,870 294,871	21,674,267 (?)	900,722 (?)	39,364 (?)	5,948 (?)	42,660	11,602
1905	do	18,901,048 12,232,811	6,008,835	802,460 432,205	18,862,748 (?)	898,411 (?)	38,300 (?)	5,049 (?)	155,599	30,945
1906	Jan. 30, 1893, Apr. 7, 1902, and Apr. 18, 1906	17,923,309 12,832,674 405,592	6,043,018	582,532 507,075 81,194	17,902,117 (?)	879,410 (?)	21,192 (?)	3,122 (?)	240,628	35,992
									177,681	32,856
									405,592	81,194

¹ Converted to American currency at the par rate of \$0.193 for the years 1881-1913; \$0.1952 for 1914; \$0.1798 for 1915; \$0.1697 for 1916; \$0.173 for 1917; \$0.178 for 1918; \$0.1368 for 1919; \$0.0704 for 1920; \$0.0746 for 1921; \$0.082 for 1922; \$0.0606 for 1923; \$0.0524 for 1924; \$0.0477 for 1925; \$0.0324 for 1926; and \$0.0392 for 1927-1930.

² Details not available.

1917	do	43,248 823,071 5,019,900 1,720,675	1,333,203	(¹) (¹) (¹) (¹)	(¹) (¹) (¹) (¹)	(¹) (¹) (¹) (¹)	(¹) (¹) (¹) (¹)	(¹) (¹) (¹) (¹)	5,019,900 1,720,675	(¹) (¹)
1918	do	20,165 5,237,918 714,573 53,704	1,063,133	(¹) (¹) (¹) (¹)	(¹) (¹) (¹) (¹)	(¹) (¹) (¹) (¹)	(¹) (¹) (¹) (¹)	(¹) (¹) (¹) (¹)	5,237,918 714,573	(¹) (¹)
1919	Jan. 30, 1893; Apr. 18, 1906; and Feb. 28, 1912	5,328,458 550,447 4,629,896 120,460	811,581	(¹) (¹) (¹) (¹)					5,328,458 550,447 4,629,896 120,460	(¹) (¹) (¹) (¹)
1920	Apr. 18, 1906, and Feb. 28, 1912	3,706,854 2,959,969 2,942,091 2,976,112	334,425	(¹) (¹) (¹) (¹)					3,706,854 2,959,969 2,942,091 2,976,112	(¹) (¹) (¹) (¹)
1921	Apr. 18, 1906	2,564,183 2,450,000 1,210,332 1,325,000	276,531	(¹) (¹) (¹) (¹)					2,564,183 2,450,000 1,210,332 1,325,000	(¹) (¹) (¹) (¹)
1922	do	1,000,000 100,000	242,717	(¹) (¹)					1,000,000 100,000	(¹) (¹)
1923	do		178,916	(¹)						(¹)
1924	do		155,948	(¹)						(¹)
1925	do		121,835	(¹)						(¹)
1926	do		76,380	(¹)						(¹)
1927	do		47,445	(¹)						(¹)
1928	do		51,940	(¹)						(¹)
1929	do		39,200	(¹)						(¹)
1930	do		3,520	(¹)						(¹)
Total		584,585,494	108,436,700	¹ 34,642,327	¹ 338,540,464	¹ 21,888,965	¹ 13,501,325	¹ 1,644,399	108,538,227	¹ 6,136,637

¹ Details not available.

² Incomplete; merely the sum of the items shown.

FRANCE

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COMMENT ON BOUNTY SYSTEMS

DURATION OF LAWS

The bounty, or subvention, system is a recognized part of French national policy in the development of a number of natural and industrial activities, and has for a long time been a part of the French fiscal system, so recognized and so called in the French budget.

So far as the ship-construction and navigation-bounty system is concerned, one of the first criticisms was directed at the time limitation imposed by the various laws. The law of 1881 did not produce the result expected by its proponents. The most significant factor in the French construction situation was that French owners placed most of their orders in French yards only so long as a 10-year navigation bounty was in sight. As years passed and no provisions for future bounties were proposed, orders for construction in French shipyards progressively decreased in favor of English construction. In other words, owners preferred to build their ships in foreign yards at lower costs, pay duty on them, and obtain a smaller bounty, than to risk high-priced ships entitled to higher bounties that might at any time cease. The long-term contract was the deciding factor.

The 10-year limit of the law of 1893 operated to the detriment of its effectiveness. While the construction-cost differential was probably equalized by the larger navigation bounty, English shipyards offered distinct advantages in the size and equipment of their yards, in standardized designs, and consequent speedy delivery of orders. Because of the 10-year time limit there was a rush of orders as soon as the law went into force. This sudden demand caused an increase in price. The French shipowner, therefore, was inclined to build in England, pay the 2 francs import duty, and earn the half bounty.

The law of 1902 remained in force for only four years, except certain sections thereof; and the law of 1906, as modified by the law of 1912, contained time limits that account for small budget provisions being made as late as 1930, when an appropriation of 100,000 francs (\$3,920) for navigation bounties still appeared.

In surveying the effects of the law of 1881 and in considering revision and amendments to its provisions, the French commission in charge of the work reported that in its opinion the first requirement in making effective laws in aid of shipping was a long-term contract. In recommending reenactment for 10 years, the committee felt that owners who built during the 10-year period should be assured of a further operation period after the construction limitation had expired. In this manner they hoped to avoid a rush of orders during the first years of the 10-year period, with resultant overcrowding of yards and rise in prices.

INCREASE AND DECREASE IN COMMERCIAL FLEET

The most common criticism of the bounty system has been that it did not result in an increase of the French commercial fleet. This criticism presumes that total national tonnage, including both sail and steam vessels, is more important than the development of modern power-driven fleets with a carrying capacity out of all proportion to their tonnage as compared with sailing tonnage. The fact that total tonnage declined is in no manner a measure of the

effectiveness of the fleet. Tonnage can not be used as a yardstick unless increase in the national fleet is the avowed object of the bounty system.

RESULTS OF LAW OF 1881

The law of 1881 did not bring about a permanent increase in the total tonnage of the French merchant marine, for the total in 1893 was only 895,423 tons as compared with 914,373 tons in 1881. The law did, however, produce a substantial increase, 187,062 tons, or 60 per cent, in steam tonnage.

In 1881 the French merchant marine had 735 steamships with a tonnage of 311,779. In 1893, when the law expired, the French merchant marine comprised 1,186 steamers with a tonnage of 498,841. In the first three years after the law went into effect the number of steamers increased from 735 to 938 and the tonnage from 311,779 to 511,072; in the remaining years the tonnage of steamers declined slightly, although the number continued to increase. The tonnage of sailing vessels under the French flag dropped steadily from 602,594 in 1881 to 396,582 in 1893.

During the period of effectiveness of the law of 1881 about 310,000 gross tons of steamships were built to order in French yards for French shipowners, while 334,000 gross tons were built in foreign yards for French owners. However, according to their contracts, 124,000 tons included under the French construction totals were built for subsidized mail lines, leaving 183,000 tons of steamships built in French yards due directly to the provisions of that law. But, as M. Siegfried pointed out: "Let us hasten to add that without this act our shipyards would completely have disappeared."

Much of the benefit that might otherwise have accrued to French shipbuilders was lost by reason of the fact that a large proportion of the vessels added to French registry under this act were of foreign construction, many of them being old ships. In some cases the higher cost of building ships in French yards more than offset the construction bounty as well as the higher navigation bounty paid to French-built ships.

Notwithstanding these difficulties, however, two results were produced which may, at least partially, be ascribed to the law of 1881. First, despite the difficulty of developing the metal steam-driven ship without native shipbuilding materials by which to strengthen the position of the French shipyards, there was an actual increase of steam tonnage of about 187,000 gross tons. Secondly, whereas in 1881 France had only two regular overseas steamship lines besides the subsidized mail lines—the Chargeurs Reunis of Havre and Transports Maritimes of Marseille, both running to Brazil and the River Plate—in 1891 there were 19 overseas lines, including 5 services to Brazil, 3 to New York, and others to Africa, the West Indies, and the Gulf of Mexico. Likewise, during this period French commerce, both foreign and colonial, showed a gain, while French vessels increased their proportion of carriage from 28 per cent to 39 per cent. However, the French share in the carriage of the international coasting trade dropped from 26 to 23½ per cent, probably due to navigation-bounty advantages accruing on the longer voyages.

From the standpoint of navigation, as outlined above, the law of 1881 was satisfactory in that it increased the number of overseas liner

services and the proportion of cargo carried in French vessels, but was unsatisfactory in that the international coasting trade fell off during the period.

RESULTS OF LAW OF 1893

During the first five years the law of 1893 was in force the number and tonnage of steamers continued to decline, while the number and tonnage of sailing vessels increased only slightly; in the last four years of its operation there was a moderate increase in steam tonnage and a considerable increase in sailing tonnage. In the period from 1893 to 1901 the total tonnage of steamers rose from 498,841 to 546,541, and the tonnage of sailing vessels from 396,582 to 564,447.

RESULTS OF LAW OF 1902

Some of the effects of the law of 1902 are thus described by M. Millerand in his report to the extraparliamentary committee:²⁸

The limitations introduced into the law of 1902 and their incongruity produced unexpected and disastrous results which even threatened the existence of French building yards. * * * The sum necessary to pay bounties on the 600,000 tons of shipping legislated for should have been £9,548,000, whereas it was limited by the law to £6,000,000, being a deficiency of £3,548,000 on the amount required for the law to have its full desired effect. Consequently the tonnage which could benefit under the law, instead of being 600,000 tons, could only be 273,221 tons, divided as follows: 4,041 tons of sailing vessels, 233,544 tons of foreign-built steamers, and 35,636 tons of French-built steamers. The consequence of this discrepancy between the amount given by law and the amount actually required was a regular rush to get first place in the building yards. Shipowners hurried in their orders, shipbuilders hurried the laying down in order to grasp their share of what the law offered them. In this hurry it was not possible to take into consideration the state of the market, which, by reason of the lowness of freights, would most certainly have prompted them, had they not been tied to time, to spread out their orders and their shipbuilding over a much longer period.

Less would have been built during the infancy of the law, but building would have been carried on without interruption to the end. The effect of the law was therefore once and for all exhausted. Not a ton more than 280,000 tons, which have been built, can benefit by the bounties until a change is made in the law. If it is true, as has been estimated, that by the natural order of breaking up, accidents, and sales 60,000 tons are taken away annually from the mercantile marine, it will have lost in 10 years 600,000 tons and gained 280,000 tons; that is a dead loss of 320,000 tons.

RESULTS OF LAW OF 1906

Although equipment or navigation bounties were paid to foreign-built as well as to French-built ships, under the law of 1906 there was a strong limitation upon the purchase of ships abroad in the provision that the bounty should be paid to foreign-built ships only if they were registered in France within two years after construction.

This provision was objected to on the ground that it kept French ship operators from purchasing secondhand vessels abroad at bargain prices. It was considered the duty of the Government to encourage the acquisition of modern vessels, since they are more efficient and are a better advertisement of the commercial strength of a country. The capital outlay was greater for the purchase of a new ship than for an old one, while the operating expenses might be quite as high. It

²⁸ As translated in British Diplomatic and Consular Reports No. 651 (May 4, 1906), pp. 6-7.

was therefore considered the duty of the State to protect purchasers of new vessels and not those who "have tried to make a good business deal in buying out-of-date vessels at bargain prices."²⁹

In favor of the payment of equipment bounties to vessels operating in the international coasting trades as well as to those in the overseas trade, Professor Ripert, in his work on maritime law, says:

This provision makes a simple solution, since a ship may on the same voyage operate in both the coasting and the overseas trade; and it is more just than the former provision, since vessels equipped for the international coasting trade must pay the same charges and run the same dangers as boats in the overseas trade; in fact, they are even more exposed to dangers because of the frequency with which they dock.

END OF BOUNTY SYSTEMS

The construction-bounty provision of the law of April 18, 1906, expired by limitation in the spring of 1918 and payments ceased with the fiscal year 1920. Navigation bounties ended with the appropriation of 100,000 francs (\$3,900) for 1930-31. The diminishing contractual obligations remaining after the expiration of the act were assumed by the Government when the entire merchant fleet was requisitioned under the acts of the spring of 1918.

The return of the Alsace-Lorraine mineral resources to France has not equalized the position of French shipbuilding with that of Germany and Great Britain. Construction costs in France are still officially recognized as being higher than those of Great Britain and the European market. This, however, is due, not to lack of native materials, but rather to other factors to which the bounty principle has not applied. Equalization of French construction costs is now indirectly promoted by better credit facilities through the maritime credit laws adopted in 1928, 1929, and 1931. (See p. 152.)

SUBSIDIES TO TANKERS

The law of January 10, 1925, established an independent office, known as the National Office of Liquid Fuels (Office National des Combustibles Liquides), through which a subsidy is paid to French-built tankers less than 15 years old, and to foreign-built tankers less than 15 years old which were transferred to French registry within one year after publication of the law. Article 7 of the original law provided that this subsidy should be paid for 10 years, but in 1926 Parliament authorized extension of the period to 20 years.

The office had its origin in the necessity for insuring supplies of fuel oil both for peace and for war-time purposes. Except for the Alsatian supply provided through the treaty of Versailles France has no native supply. It is therefore necessary to insure such supplies. To this end the Government program is directed toward (1) French production in France, French colonies, or other countries; (2) to insure importation through French capital and the French commercial fleet; (3) to establish interior provisions for the proper distribution and control of supplies; and (4) to insure supplies during hostilities.

²⁹ Ripert, George: *Droit Maritime*, Vol. I, p. 155.

SUBSIDIES PAID FROM IMPORT-DUTY FUND

The National Office of Liquid Fuels is self-supporting, and its subsidy expenditures are not provided for in the budget but are paid from a fund accruing from a 10-franc tax on each ton of petroleum and a 1.50-franc tax per ton on certain petroleum residues. One-half of the sum thus accrued is expended as a subsidy to all eligible tankers under French registry except those of the French Navy.

The subsidy is paid per ton of petroleum landed by the vessel in French ports directly from the country of origin, and is based upon the total amounts of imports and the workings of dead-weight tonnage in the tanker service. Should the total dead-weight tonnage entitled to subsidies be less than 150,000, the total available subsidies will be reduced proportionately as the total tanker tonnage is to 150,000 tons.

The general progress of tanker tonnage under the provisions of the law of January 10, 1925, is shown by the following figures:

1925—Subsidies distributed, 7,712,280 francs (\$367,875 at exchange of \$0.0477); petroleum carried, 547,483 metric tons; approximate subsidy per ton of petroleum, 14 francs (\$0.668).

1926—Subsidies distributed, 8,225,737 francs (\$266,515 at exchange of \$0.0324); petroleum carried, 636,954 metric tons; approximate subsidy per ton of petroleum, 13 francs (\$0.421).

1927—Subsidies distributed, 8,262,112 francs (\$323,875 at \$0.0392); petroleum carried, 709,483 metric tons; approximate subsidy per ton of petroleum, 11.50 francs (\$0.451). The tanker tonnage entitled to subsidy in this year was 191,814 tons.

FRENCH MARITIME CREDIT

In 1928 the French Parliament adopted a maritime credit law of comprehensive scope. In 1929 this law was amended to meet changed conditions. In 1930 a bill was introduced which again provided for modifications of maritime credits, and this was passed in its final form on March 29, 1931.

The immediate occasion for these laws was a carefully planned and executed campaign for better credit facilities for shipping which had its inception in 1924, when efforts were first made to establish a form of governmental maritime credit. The general demand for extension of State credit to French shipping is of considerably earlier inception.

EARLY GOVERNMENT CREDIT OR ADVANCES

Following the example of Great Britain and the United States in granting certain advances to companies with which these Governments had concluded contracts for the performance of regular steam communication services (see pp. 52 and 245), France, by two laws passed on July 3, 1861, approved certain stipulations in the agreements which these laws sanctioned authorizing the French Government to advance funds for the acquisition of vessels needed to carry out the contracts. Accordingly, 13,995,750 francs (\$2,701,180, at \$0.193 to the franc) was advanced to the Compagnie Messageries Maritimes and 18,600,000 francs (\$3,589,800) to the Compagnie Générale Transatlantique, in addition to 4,000,000 francs (\$772,000)

added by subsequent laws, making a total of 22,600,000 francs (\$4,361,800) for the latter company for its trans-Atlantic services.

Following the establishment of the mail lines and in connection with the adoption of the system of shipbuilding and navigation bounties which began in 1881, some thought was given to the subject of maritime credit by the commissions which were studying the entire maritime situation. The general tone of these considerations, as contained in various reports and studies prepared by committees and members, was that French tonnage was not being properly increased or renewed, and that in considering the possible effect of the proposed bounty system as a remedial measure for this national condition it might be well to consider also the possible effects of lending the State credit. It was recalled how Napoleon, to further the recuperation of national commerce and industry following the French revolutionary period, had created the Bank of France. In order to aid real estate, access to capital had been given through the *Credit Foncier*, and later the idea of a maritime credit institute had also been advocated.

Formal recommendations in this respect were avoided, one commission stating:

The Government has not the right to intervene in the creation of corporations, and it is not possible to ask it to occupy itself with the founding of a maritime-credit corporation, but the commission is unanimous in desiring to see the Government encourage such institution of this character as may be founded.

DIRECT LOANS TO SHIPOWNERS

LAW OF APRIL 13, 1917

Among the measures that grew out of the World War was the law of April 13, 1917, authorizing loans to shipowners. From the beginning of the war France had been preoccupied with the military operations within its own borders, and in consequence its shipyards, which before the war turned out an annual average of 130,000 gross tons, dropped to an output of 25,000 gross tons in 1915. The *Compagnie Générale* and other French lines in 1916 and early in 1917 had ordered a considerable number of large ocean steamers in American shipyards. The German declaration of submarine warfare in 1917 threatened to cut the lines of communication between France and its colonies and with the Americas. These communications were already impaired by war losses of 285,000 gross tons, or 12 per cent of the French merchant fleet.

To meet this situation the French National Assembly resolved to advance public funds to the shipowners of France and its colonies to enable them to build and buy ships wherever they could be found. The act of April 13, 1917, provided that the Government could loan at 6 per cent to shipowners 60,000,000 francs for the purchase of ships and 100,000,000 francs for the building of ships, the interest being reduced to 4 per cent so long as ships thus acquired were employed between France and its colonies, the French Government and the colonial Governments assuming between them the payment to the treasury of the 2 per cent interest of which the shipowner was relieved. The principal advanced by the Government was to be

repaid in five equal annual installments after the ship was in operation. To prevent speculative ventures these loans were to be made only to a shipowner who was indorsed by his local chamber of commerce, the chambers of commerce in French seaports having a quasi-official status and standing at all times in close relation to the Government in matters affecting the shipping and trade of their respective ports.

The act was passed just as the United States entered the war; the United States Shipping Board soon afterward requisitioned the earlier French contracts and the ships of French companies in American shipyards, and the possibility of building in America steel ships for France was restricted. The price of ships rose rapidly, and within a year the French Government requisitioned the entire French merchant marine. Consequently, there was little opportunity to make use of the act of April 13, 1917. The act, however, permitted these Government loans until 18 months after the signing of the treaty of peace.

In 1920 23,715,000 francs and in 1921 6,550,000 francs—in all, 30,265,000 francs, out of a credit of 60,000,000 francs authorized by the act of 1917—were advanced for the purchase of ships. For the construction of ships a credit of 100,000,000 francs had been authorized; in 1920 3,375,000 francs and in 1921 15,475,000 francs—in all, 18,850,000 francs—were advanced for this purpose. The act expired by its 18 months' limitation early in 1921, and no further loans were made except 7,600,000 francs for construction which had been approved before January 1, 1922. Capital loans were not payable to the Government until a year after the ship had been in commission, so the first repayments, 2,400,000 francs, were made in 1921. (These repayments continued until 1927.) The interest payments, however, are credited annually to budget receipts to defray the general expenses of government.

LOANS THROUGH CREDIT FONCIER

LAW OF AUGUST 1, 1928

Following the war a campaign was begun for a maritime-credit institution to be supported by the Government. Proposals therefor in 1924 and 1925 failed of adoption. However, the effort was continued, and finally an agreement was drawn up between the state and the Credit Foncier de France on December 29, 1927, which formed the basis for the subsequent bill, reports, and the law of August 1, 1928.

The bill—No. 5584—was unanimously adopted by the Chamber of Deputies without discussion on March 15, 1928. It was passed by the Senate on July 6, 1928, without modification; became effective August 1, 1928, and was published in the *Journal Officiel* of August 2, 1928.⁸⁰

⁸⁰ The most convenient reference covering this law and the preparatory work done in connection with its adoption is contained in Circular No. 1364, issued by the Central Committee of French Shipowners (Comité Central des Armateurs de France) Sept. 10, 1928. This circular contains the law, agreements, general report, the report of the Merchant Marine Commission of the Chamber of Deputies, the reports of the Finance Commissions of both the Chamber and the Senate, and extracts of the Senate discussion preceding the adoption of the law. Official reports on the proposed modification of 1930 are contained in Circular No. 938 of Jan. 21, 1931, Syndical Chamber of Constructors of Ships and Marine Machinery.

OFFICIAL BASIS FOR LAW

The reasons of record supporting the proposition to establish a maritime-credit operation by state aid and supervision were: That the French commercial fleet had increased from a pre-war normal of 2,500,000 gross tons to a post-war total of 3,500,000 gross tons; that a decline in ship construction began in 1923, since which time the average annual commercial tonnage built in French yards was 43,000 gross tons, as compared with an average of 90,000 gross tons before the war; that based upon the present fleet a normal replacement program of 150,000 gross tons annually was necessary; and that French shipbuilding always had been in a disadvantageous position owing to high costs and inadequate credit facilities.

Maritime credit was established by the law of August 1, 1928. Its object is to enable shipowners to secure money at a low rate of interest for the construction and purchase of vessels, the Government to assume part of the interest on the amounts borrowed by the shipowners. The loans by the shipowner may be effected through the Credit Foncier, or directly from another lender, or by the issue of bonds.

AMOUNT OF LOAN FUND—LOAN LIMIT

The Credit Foncier de France (semiofficial real-estate finance institution) agrees to loan not to exceed 200,000,000 francs (\$7,840,000 at the stabilized rate of \$0.0392) each year for five years—a total authorization of 1,000,000,000 francs (\$39,200,000). One-fifth of the annual amount, or 40,000,000 francs (\$1,568,000), is reserved for French owners to provide funds with which to meet annual payments due the state for vessels constructed or purchased in Germany on reparations account (deliveries in kind) or for the purchase of foreign vessels less than 10 years old.

Loans may not be obtained in excess of 85 per cent of the construction cost or purchase price of a vessel. In conformity with its rules and regulations, the Credit Foncier requires mortgage pledges, which, if no further guaranty be deposited, amount to double the value of the loan. In other words, the Credit Foncier lends only 50 per cent of the value of the pledge. If the shipowner furnishes a bank guaranty, the loan may amount to 70 per cent of the value of the pledge, the pledge in that case being the ship which is to be built or purchased. If the owner desires to secure a loan amounting to the stipulated maximum of 85 per cent, he must then furnish other collateral.

Loans may be extended for construction of vessels abroad where French shipbuilding yards quote prices more than 15 per cent above world competitive prices. This provision is designed as a check against the tendency to raise prices during an active construction market—a precaution based upon experience with early construction bounty laws.

The total of the loans granted to one borrower can not exceed 40,000,000 francs (\$1,568,000) in one year unless at the end of the year there are unexpended remainders of the 200,000,000 francs annual limit.

PROCEDURE—FORM AND DURATION OF LOAN

Applications for loans, with supporting documents, must be presented to the minister having jurisdiction over the merchant marine, who will transmit them to the Credit Foncier within 20 days. During the succeeding 15 days the directors of the Credit Foncier must accept or reject the proposition. All terms and conditions are fixed by the directors, but within the limit set by the minister. In case of refusal, the minister must be notified within three days, and he may request new deliberations, in which event the directors may reserve the right to limit the loan to 25 per cent of the amount requested. Advances on vessels under construction are made upon certification of the Bureau of Veritas as to progress.

The loans may take the form of (1) short-term credits or loans, repayable at fixed intervals during a maximum period of five years, or (2) long-term loans, repayable by annual installments calculated in annuities so as to amortize the debt within a period fixed according to the age of the vessel but not to exceed 20 years.

All loans or credits must be based upon first mortgages.

INTEREST RATES AND STATE CONTRIBUTION

It is in connection with the rate of interest to apply to maritime credits that the state directly authorizes a Government commitment without reimbursement; the state contributes part of the interest. The establishment of interest rates and the share of the state is a somewhat complicated process, but under the original law the Government was authorized to assume one-half of the interest charges on hulls, machinery, and boilers constructed in France. Where loans were repayable in annual installments, therefore, the Government undertook to pay the difference between the amount of the installment and the amount which would have been due if the rate of interest had been reduced by half.

The amount of an installment payable by the borrower, however, could in no case, under the original law, be less than the amount calculated on an interest rate of 4 per cent. In other words, whenever the interest rate dropped below 8 per cent, the share of the Government would be less than 4 per cent, while the share of the borrower remained fixed at a minimum of 4 per cent. (It was this feature that was criticized at the time the original law was passed and that formed the principal reason for the modification of 1929. See p. 158.)

The rate of interest on loans was determined by the selling price of bond issues authorized for the purpose of providing funds for maritime loans, increased by 1 per cent. Until bond issues were made the Credit Foncier was authorized to charge the interest rate current on mortgage loans on real estate. The maritime bonds enjoy all the privileges attached to real-estate and municipal bonds by the laws and decrees relative to the Credit Foncier. The interest, arrears, and all proceeds of the credit and loan operations brought about according to the agreement approved by the law are exempt from the negotiable-instruments tax and notarial fees relative to maritime laws are one-half the fees fixed by the tariffs for such work, with exceptions.

In credits covering vessels constructed or purchased abroad, including those obtained from Germany on reparations account, the interest charges to be borne by the borrower were increased by 3 per cent, thus making a 7 per cent interest rate on all transactions covering the acquisition of foreign tonnage under the act of 1928.

GOVERNMENT COST OF INTEREST CONTRIBUTION

The charges arising from contributions to interest payments were thoroughly analyzed prior to the adoption of the law of August 1, 1928. Senator Mahieu, in a report made on behalf of the Senate finance committee, based upon the bill as passed by the Chamber of Deputies, stated the basis by which the participation of the state could be measured for the purpose of calculating the annual amount to be written into the budget.

The budget provisions for interest depend upon the governing commercial rate; they are limited to 6,000,000 francs (\$235,200 at stabilized exchange) for each cumulative year of operation of the law. At the time of the original agreement (December 29, 1927) the interest rate was about 10 per cent. The annual sum of amortization and interest or average annuity on a 20-year loan, calculated over a 20-year period in equal annual installments, would amount to 11.74 per cent of the amount loaned. The annual amount borne by the ship operator at one-half the current interest rate, or 5 per cent, over a 20-year period would average 8.02 per cent of the principal of the loan. The total borne by the state on this basis and at these interest rates would therefore be 3.72 per cent of the amount of the loan.

For 1928 only a half year's interest charge would apply and then on only a fifth of the total fund. This figure would progressively increase until the fund total of 1,000,000,000 francs is reached. If the interest rate remained the same, when the total amount of the fund came into operation the budget would carry an appropriation of 37,200,000 francs (\$1,458,240) annually for contributions to interest charges.

However, by the time the law was enacted the interest rate had dropped to 8.60. The calculations on above basis then become 10.64 per cent as the annual average annuity of the loan, and the portion chargeable to the borrower at 4.30 per cent (half of the current 8.60 rate) resulted in an annuity of 7.55 per cent, or a difference of 3.09 per cent as the charge for account of the state. The annual budget provisions for interest under this scale would be reduced to 30,900,000 francs (\$1,211,280).

M. Mahieu calculated that normal reduction of interest would reduce the state contribution to 23,000,000 francs (\$901,600) annually. For the 15-year period during which the full amount of the credit will be in operation the annual budget provisions would therefore be somewhere between 30,900,000 francs and 23,000,000 francs, or between \$1,211,280 and \$901,600 at the stabilized rate of \$0.0392 to the franc.

The Senator concluded this section of his report with:

Let us observe here that the bounties for construction and navigation existing before the war cost the state about 36,000,000 francs gold (approximately \$7,000,000). Certainly the sacrifice asked of the treasury is considerable, but

it is unavoidable if we wish to maintain our merchant marine in condition to transport, I will not say all, but at any rate 50 per cent of our commercial products.

The situation existing upon the passage of the law of August 1, 1928, in respect of the current interest rates to be borne by the shipowner and the state and the total allocation of the state per 100 francs loaned on a 20-year basis is made clear in the following table:

TABLE 27.—ALLOCATION OF INTEREST RATES UNDER LAW OF 1928

Designation	Rate of interest			Allocation of state per 100 francs on 20-year loans
	Demanded by Credit Foncier	Borne by shipowner	Borne by Government	
	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Francs</i>
Construction and purchase abroad.....	8.60	7.30	1.30	0.98
Construction in France.....	8.60	4.30	4.30	3.05

Source: Coty, René: Report of Merchant Fleet Commission on Laws of Aug. 1, 1928, and Aug. 10, 1929. Chamber of Deputies Document No. 4143, Annex to minutes of session of Nov. 27, 1930.

LAW OF AUGUST 10, 1929

The interest provisions of the law of August 1, 1928, had been criticized even before the passage of the original bill. However, in order not to delay enactment it was agreed that the bill should be passed in its original form and that such changes as later appeared desirable should be embodied in an additional bill.

A complete study of the credit facilities and requirements of French shipping and comparative tax and duty burdens borne by French shipbuilders was presented in a report of 10,000 words by Paul de Rousier, as representative of the merchant marine committee.³¹ It was stated that the assistance given French shipowners by the law of August 1, 1928, was not sufficient in respect of cargo vessels for the reason that British yards, having a large output of standard cargo vessels, are able to quote lower prices for vessels built in standard series. It was argued that equitable interest rates should, in view of the decreased commercial rates, be so fixed that the minimum rate to be assumed by the borrower should be 3 per cent.

CHANGES IN CREDIT CONDITIONS

The law of August 10, 1929, amends the provisions of the law of August 1, 1928, in so far as credit conditions are concerned, on the following points:

1. The minimum interest rate which was to be borne by the borrower under the law of August 1, 1928, was 4 per cent. This was reduced by the law of August 10, 1929, to 3 per cent on passenger liners and combination cargo-and-passenger vessels built in France. On such loans repayable in annual installments, the state contributes the difference between an annuity due the Credit Foncier and an annuity based upon half the interest rate. The state thus, under

³¹ This report, as well as all official working material and the laws and agreements as revised, are contained in Circular No. 1393 of Oct. 19, 1929, issued by the Central Committee of French Shipowners.

such conditions, absorbs one-half of the interest rates on this class of vessel.

2. The minimum interest rate on cargo vessels built in France to be borne by the borrower was fixed at 2 per cent. The state contributes one-half of the interest calculated on the same basis as for higher-class vessels plus 1 per cent.

3. Increased allocation was provided for purchases abroad, the interest share to be borne by the Government being raised 1 per cent. The shipowner may borrow for construction abroad where the cost of a vessel in French shipyards will be more than 15 per cent higher than the cost in foreign shipyards; in this case the interest rate to be borne by the borrower will be one-half of the interest plus 3 per cent.

Loans for purchases from Germany on reparations account or purchases of foreign tonnage over 3 and less than 10 years old will draw an interest rate of one-half the actual rate plus 2 per cent.

The law of August 10, 1929, likewise made important modifications in charges on imported vessel tonnage. This part of the law is discussed on page 168.

The situation following enactment of the law of August 10, 1929, and a decrease in commercial interest rates may be presented as follows:

TABLE 28.—ALLOCATION OF INTEREST RATES UNDER LAW OF 1929

Designation	Rate of interest			Allocation of state per 100 francs on 20-year loans
	Demanded by Credit Foncier	Borne by shipowner	Borne by Government	
	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Franc</i>
Construction abroad.....	8.20	7.10	1.10	0.80
Purchase abroad.....	8.20	6.10	2.10	1.50
Construction in France:				
Passenger vessels.....	8.20	4.10	4.10	2.88
Other vessels.....	8.20	3.10	5.10	3.50

In November, 1929, the Credit Foncier rate of interest declined from 8.20 to 7.55 per cent following a loan which it obtained at that time. Hence the situation became:

TABLE 29.—ALLOCATION OF INTEREST RATES AFTER REDUCTION OF NOVEMBER, 1929

Designation	Rate of interest			Allocation of state per 100 francs on 20-year loans
	Demanded by Credit Foncier	Borne by shipowner	Borne by Government	
	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Francs</i>
Construction abroad.....	7.55	6.775	0.775	0.57
Purchase abroad.....	7.55	5.775	1.775	1.27
Construction in France:				
Passenger vessels.....	7.55	3.775	3.775	2.60
Other vessels.....	7.55	3.000	4.550	3.08

SHIPPING AND SHIPBUILDING SUBSIDIES

APPLICATION OF THE LAWS OF 1928 AND 1929

DETAILS OF TWO YEARS' OPERATIONS

Table 30, on page 161, presents a list of the loans made under the provisions of the laws of August 1, 1928, and August 10, 1929, covering the 2-year period from August 1, 1928, to July 30, 1930, the names of the shipping companies to which the loans were granted, the type of vessel, the amount of the loan, and the interest allocation by the Government. Table 30 is summarized on page 163.

TABLE 30.—LOANS OF THE CREDIT FONCIER UNDER LAWS OF 1928 AND 1929

No.	Company	Type of vessel	Tonnage	Nature of operation	Duration of loan	Aug. 1, 1928-July 30, 1929		Aug. 1, 1929-July 30, 1930	
						Loans	Annual allocations of the Government	Loans	Annual allocations of the Government
			Gross tons		Years	Francs	Francs	Francs	Francs
1	Compagnie Générale Transatlantique.....	1 packet vessel.....	25,082	Constructed in France.....	20	48,000,000	1,206,470	20,000,000	576,030
2	Compagnie Auxiliaire de Navigation.....	.....do.....	25,082	.....do.....	20	.....	.....	.....	.....
3	Société Algérienne de Navigation pour l'Afrique du Nord.....	1 cargo vessel.....	4,000	.....do.....	15	7,437,500	201,955	.....	.....
4	Compagnie Havraise Péinsulaire.....	2 mixed cargo vessels.....	22,000	.....do.....	14	25,415,000	681,745	.....	.....
5	Dubray et Laine (replaced by No. 22).....	.....do.....	22,000	.....do.....	14	.....	.....	.....	.....
6	Compagnie Navale et Commerciale de l'Océanie.....	4 cargo vessels.....	17,986	Purchased abroad.....	1	1,000,000	11,000	.....	.....
7	Société française d'Armement.....	1 cargo vessel.....	4,000	Constructed abroad.....	6	3,000,000	20,295	.....	.....
8	Armand Fontaine.....	.....do.....	4,000	Constructed in France.....	6	.....	.....	.....	.....
9	Société Française de Commerce, Industrie et transports.....	.....do.....	4,000	Purchased abroad.....	6	.....	.....	.....	.....
10	Société générale de transports Maritimes à Vapeur.....	1 packet vessel.....	4,500	Constructed abroad.....	1	500,000	5,500	.....	.....
11	Pêcheries d'Armor.....	3 fishing vessels.....	50	Constructed in France.....	8	212,000	5,305	.....	.....
12	Société Commerciale Navmar.....	1 cargo vessel.....	2,038	Purchased abroad.....	9	850,000	5,959	.....	.....
13	Compagnie Générale Transatlantique.....	.....do.....	5,400	Constructed in France.....	20	17,000,000	524,190	.....	.....
14	Société Générale de Transports Maritimes à Vapeur.....	1 mixed cargo vessel.....	2,400	.....do.....	8	10,700,000	267,760	.....	.....
15	Compagnie des Chargeurs Réunis.....	2 cargo vessels.....	10,511	Purchased abroad.....	2	938,000	10,318	.....	.....
16	Société Havraise de Pêche.....	1 fishing smack.....	700	Constructed abroad.....	12	1,135,000	5,778	.....	.....
17	Société de Chalutage à Moteur.....	.....do.....	700	Constructed in France.....	12	.....	.....	.....	.....
18	Maritime Nicolardot.....	.....do.....	700	Purchased abroad.....	12	.....	.....	.....	.....
19	Compagnie Nationale de Navigation.....	1 oil tanker.....	9,130	Deliveries in kind.....	2	507,000	8,875	.....	.....
20	Société Maritime Nationale.....	1 cargo vessel.....	1,600	Constructed abroad.....	15	2,728,000	20,852	.....	.....
21	Compagnie Paquet.....	2 packet vessels.....	18,000	Constructed in France.....	12	50,000,000	1,200,742	10,000,000	237,700
22	Dubray et Laine.....	1 fishing smack.....	700	.....do.....	12	.....	.....	3,080,000	87,229
23	La Morue Française.....	4 fishing smacks.....	2,800	Constructed abroad.....	12	.....	.....	10,480,000	53,097
24	(Same as No. 3).....	1 cargo vessel.....	1,600	.....do.....	10	.....	.....	4,000,000	19,812
25	Compagnie de Transports Maritimes de l'Afrique Occidentale Française.....	.....do.....	2,008	Purchased abroad.....	10	.....	.....	2,100,000	23,540
26	Compagnie Paquet.....	1 mixed packet vessel.....	2,400	Constructed in France.....	12	5,600,000	133,122	.....	.....
27	Société Anonyme de Gerance et d'armement.....	2 packet vessels.....	4,000	.....do.....	15	.....	.....	33,000,000	811,701
28	(Same as No. 3).....	1 cargo vessel.....	3,500	Constructed abroad.....	10	.....	.....	3,100,000	15,354
29	Compagnie de Navigation Busck.....	.....do.....	1,434	Purchased abroad.....	8	.....	.....	1,790,000	19,597
30	Société Maritime de Meze.....	1 small packet vessel.....	50	Constructed in France.....	8	.....	.....	.....	.....
31	Compagnie Générale Transatlantique.....	1 packet vessel.....	24,000	.....do.....	20	24,984,500	649,914	.....	.....
32	Syndicat Harel.....	.....do.....	24,000	Deliveries in kind.....	20	.....	.....	.....	.....
33	Compagnie Industrielle Franco-Africaine.....	2 cargo vessels.....	2,276	Purchased abroad.....	10	.....	.....	950,000	10,649
34	(Same as No. 3).....	.....do.....	3,074	.....do.....	10	.....	.....	3,400,000	38,112

FRANCE

TABLE 30.—LOANS OF THE CREDIT FONCIER UNDER LAWS OF 1928 AND 1929—Continued

No.	Company	Type of vessel	Tonnage	Nature of operation	Duration of loan	Aug 1, 1928-July 30, 1929		Aug 1, 1929-July 30, 1930	
						Loans	Annual allocations of the Government	Loans	Annual allocations of the Government
			<i>Gross tons</i>		<i>Years</i>				
35	Société des anciens établissements Courbet Freres.	2 lighters.....	3,074	Constructed in France..	6			250,000	6,743
36	Compagnie Fluviale et Maritime de l'ouest Africain.	1 cargo vessel.....	3,074	Purchased abroad.....	6				
37	Ozanne.....	do.....	5,493	do.....	9			3,100,000	34,327
38	Tartanson.....	1 fishing smack.....	103	do.....	6			150,000	1,613
39	Compagnie Nationale de Navigation.....	1 oil tanker.....	9,000	Constructed in France..	6			12,950,000	378,697
40	Schiaffino Chantiers.....	1 tug.....		Constructed abroad.....	6			800,000	3,962
41	Bonhomme.....	Land and water boat.....		do.....	6			105,000	497
42	Daniel.....	1 fishing boat.....		Constructed in France..	6				
43	Société Airoenne-Belloise.....	1 passenger vessel.....	9,000	do.....	15			210,000	51,655
44	Scotto, Ambrosino, Pug, etc.....	1 cargo vessel.....	1,198	Purchased abroad.....	10			2,100,000	23,540
45	Société Provençale de Remorquage.....	Tugs.....	1,198	Constructed in France..	12			5,400,000	152,935
46	Chantiers Schiaffino.....	1 tug.....	1,198	Purchased abroad.....					
47	Société Commerciale de Navigation.....	2 cargo vessels.....	7,547	do.....	12				
	Total.....					200,000,000	5,109,770	116,915,000	2,546,790
31	Direct loans (see above).....					40,700,000	890,230	41,650,000	906,277
39	Direct loans (see above).....							2,500,500	73,108
	Grand total:								
	In francs.....					240,700,000	6,000,000	161,065,000	3,526,175
	In United States currency ¹					\$9,435,440	\$235,200	\$6,313,747	\$138,226

¹ Converted at the stabilized rate of \$0.0392 to the franc.

Source: M. Coty: Report of Merchant Marine Commission.

TABLE 31.—SUMMARY OF TWO YEARS' LOANS

Designation	Aug. 1, 1928, to July 30, 1929			Aug. 1, 1929, to July 30, 1930		
	Loans of Credit Foncier	Direct loans	Allocations	Loans of Credit Foncier	Direct loans	Allocations
Construction in France	Frans 189,849,000	Frans 40,700,000	Frans 5,920,301	Frans 84,890,000	Frans 44,150,000	Frans 3,282,070
Construction abroad	7,363,000	-----	52,422	18,435,000	-----	92,728
Purchases abroad	2,788,000	-----	27,277	13,590,000	-----	151,377
Total	200,000,000 (\$7,840,000)	40,700,000 (\$1,595,440)	6,000,000 (\$235,200)	116,915,000 (\$4,583,068)	44,150,000 (\$1,730,680)	3,526,175 (\$138,225)

RESULTS OF PLAN

In the total the amount of loans to which the allocations by the Government are applied reached 401,765,000 francs (\$15,749,200), divided as follows: Construction in France, 359,589,000 francs (\$14,095,900); construction abroad, 25,798,000 francs (\$1,011,300); purchases abroad, 16,378,000 francs (\$642,000).

For the first year of application of the law the maximum of loans and allowances was reached; for the second year something more than one-half, owing to the fact that for six months, excepting certain subsidized lines, new construction was virtually suspended because of bills pending as well as because of the general economic crisis.

The laws of August 1, 1928, and August 10, 1929, were designed especially for construction in French shipyards. The law of August 1, 1928, provided that one-fourth of the loans might be set aside for purchases abroad. Of a total amount of 401,765,000 francs of loans, 359,589,000 francs, or nearly nine-tenths, was used for construction in France. Since in no case may the loans exceed 85 per cent of the construction costs and because now and then the loans have represented less than one-half the price of the vessel, the total cost of constructions effected in France for vessels benefited by maritime credit amounts to nearly 600,000,000 (\$23,520,000).

The proportion of allocations is even more favorable. Of the total amount of 9,526,175 francs (\$373,425), only 323,804 francs (\$12,693) was availed of for construction or purchase abroad and 9,202,371 francs (\$360,732), or 96.5 per cent, was granted for construction in the French shipyards.

Credit for all tonnage should not be given to the maritime-loan plan, for the passenger vessels ordered were intended for mail services and had to be built under the contract requirements of these services. On the other hand it is certain that by placing money at the disposal of shipowners at low rates of interest the loan plan has been helpful in the ordering of new vessels apart from those ordered under the scheme itself.

EQUALIZATION OF COST DIFFERENTIAL

LAW OF MARCH 29, 1931

The decrease in commercial interest rates to some extent reduced the effectiveness of the provisions of the maritime credit laws of

1928 and 1929. Changes in import duties and various fiscal charges incurred in connection with sales or purchases of vessels did not fully meet the situation, the Coty report stating that customs and fiscal charges still amount to 13 per cent of the cost of the vessel.

Lack of standardization and mass production and absence of continuity of work are given as reasons for the cost differential existing between French and foreign shipyards in favor of the latter. To further investigate the possibilities of equalizing national conditions the Minister for the Merchant Marine requested that a study be made of French and foreign shipyard practice by the National Economic Council. A special commission composed of M. Blancho, Deputy and mayor of Saint Nazaire; M. Jouhaux, general secretary of the General Labor Confederation; the secretary of the metal industries; the bureau chief of the commercial fleet and the bureau chief of naval material in the Ministry of the Merchant Marine; the general secretary of the Syndical Chamber of Vessel Constructors; a mining engineer; and the secretary to the National Economic Council visited the various shipyards.

The commission found that the French prices for construction of freighters compared with international prices, on the basis of the English market, were higher by a spread of 19.5 to 24.6 per cent from November, 1928, to October, 1929. At the time of the presentation of the bill to Parliament in July, 1930, the French constructors claimed a differential of between 30 and 33 per cent.

PROVISIONS OF 1931 LAW

The bill as introduced sought to equalize these conditions. It proposed five changes:

1. Increase of annual loans to 250,000,000 francs (\$9,800,000);
2. Reduction of minimum interest rate to be borne by borrower for the construction of cargo vessels to 2 per cent;
3. State grant of interest to be full amount on the basis of an 85 per cent loan whether or not the borrower has secured a loan at that ratio;
4. Increased allocations for vessels of high speed; and
5. Government to pay interest allocation directly to Credit Foncier instead of through medium of borrower.

Some of the considerations entering into these proposals were:

1. *Increase of annual loans to 250,000,000 francs.*—The increase in total loans made annually is justified by the fall in rate of interest. The increase in total loans will not represent an additional interest charge to be met by the state. Such charge was limited by the law of August 10, 1929, to 6,000,000 francs (\$235,200) for the loans made each year. The proposed amendment in the agreement between the Government and the Credit Foncier in respect of this reads:

The total of loans shall not exceed an annual average of 250,000,000 francs for a period of five years, or a total maximum of 1,250,000,000 francs. Furthermore, the total amount of loans is limited to a value such that the total sum of the allocations by the Government shall not exceed that fixed by article 2 of the law of August 10, 1929 [6,000,000 francs], it being understood that the allocations granted on the basis of speed in virtue of article 2 of the present modification shall not be included in this total sum.

2. *Reduction of minimum interest rate.*—The law of August 10, 1929, fixed the interest rate to be borne by the shipowner at one-half

the rate charged by the Credit Foncier for passenger vessels built in France and one-half the interest rate decreased by 1 per cent for cargo vessels, with a minimum to be borne by the shipowner of 3 per cent.

At the time the act was passed the interest rate charged by the Credit Foncier was 8.20 per cent and the rate borne by the cargo-vessel owner as a consequence was 3.10 per cent. The interest rate dropped to 7.55, with the result that the rate borne by the cargo-vessel owner was by limitation fixed at 3 per cent instead of 2.77 per cent, if calculated at one-half of interest rate reduced by 1 per cent, thus minimizing the effectiveness of the law.

The bill proposes an amendment providing that the amount of interest borne by the borrower may not be less than 3 per cent for passenger vessels nor 2 per cent for cargo vessels.

3. State grant of interest in excess of proportional amount of loan.—The bill proposes that in certain cases where the loan obtained by a shipowner is less than 85 per cent of the construction cost the Government may grant an allocation of interest based upon 85 per cent of that cost. This provision is made in favor of the small shipowner who may not have a fleet of ships or other security sufficient to provide the extra security demanded in loans granted above 50 per cent of the vessel cost. (It may be restated that the Credit Foncier lends only up to 50 per cent of the value of any ship to be constructed on the security of that vessel; may increase this amount to 70 per cent of the value if a bank becomes guarantor; and is allowed under law to lend up to 85 per cent of the value of the vessel, if sufficient other security is forthcoming.)

The three foregoing provisions of the bill as presented in July, 1930, carry no increased liability on the part of the state for additional appropriations. The entire effect is designed to increase the credit available for shipping without extra cost to the Government.

Two more provisions were included in the bill of July, 1930—the one for extra expenditures by the Government and the other for a slight reduction.

4. Supplementary allocations for speed.—The French commercial fleet was thought to contain an undue number of vessels of low speed, and increased speed in new vessels was considered desirable. Inasmuch as the extra cost of speed in vessels beyond accepted commercial practice increases out of proportion to the increase of speed, a progressive scale of increases for all classes of vessels was adopted, as follows:

1. For all classes of vessels, with a trial speed—

	Per cent
Between 22 and 24 knots, an increase in interest allocation of.	100
Between 24 and 26 knots, an increase in interest allocation of.	125
Above 26 knots, an increase in interest allocation of.....	150

2. For cargo vessels carrying at least 12 passengers, with a trial speed—

	Per cent
Between 14 and 16 knots, an increase in interest allocation of.	50
In excess of 16 knots, an increase in interest allocation of.....	100

The total supplementary allocations for speed corresponding to the loans that will be made up to the time of the expiration of the

law regarding maritime credit—that is to say, up to August 1, 1933—may not exceed 4,000,000 francs (\$156,800).

5. *Payment of State interest allocation directly to Credit Foncier.*—By paying the State interest allocations directly to the Credit Foncier instead of through the medium of the borrower, who was supposed to transfer the allocations on the same day as received, the Credit Foncier allowed a rebate on the commission granted it by the agreement in consideration of the reduced risk. The total of this commission was 1 franc per hundred, of which 0.80 franc was kept by the Credit Foncier and 0.20 franc paid to the guaranty fund. The 0.20 franc payment has been eliminated and the commission reduced to 0.80 franc per hundred. By this the Government and the shipowner benefit to the amount of 0.10 per cent each in the interest rate.

FURTHER REDUCTION IN INTEREST RATES

At the time the bill was introduced the estimate of the interest rate on the loan to be floated by the Credit Foncier in November, 1930, including the 0.20 franc reduction on account of commission, was 6.45 per cent. The situation proposed to be met by the bill therefore was as follows:

TABLE 32.—ALLOCATION OF INTEREST RATES UNDER LAW OF 1931

Designation	Rate of interest			Allocations of the state per 100 francs on 20-year loans
	Demanded by Credit Foncier	Borne by ship-owner	Borne by Government	
	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Francs</i>
Construction abroad.....	6.45	6.225	0.225	0.17
Purchase abroad.....	6.45	5.225	1.225	.79
Construction in France:				
Passenger vessels.....	6.45	3.225	3.225	2.16
Other vessels.....	6.45	2.225	4.225	2.77

The bill as originally introduced was adopted by the Senate and the Chamber of Deputies and promulgated as law by the President of the Republic of France on March 29, 1931, and was published in the *Journal Officiel* on March 31, 1931.

PREFERENCES AND RESTRICTIONS

RESERVATION OF THE COASTING TRADE

Since passage of the navigation act of September 21, 1793, the coastwise trade between ports in continental France has, with few exceptions, been reserved to vessels of French registry. Exception was made in favor of Spanish vessels by a treaty of August 15, 1761, which was renewed by treaty in 1814 and abolished by the treaty of December 8, 1877. Italian vessels were permitted to participate in the coasting trade of the Mediterranean coast of France and in the Algerian coasting trade under treaty provisions of June 13, 1861, and November 3, 1881, until July 16, 1886, when the treaties between Italy and France expired.

A French law of January 30, 1893, supplemented by a further law of April 7, 1902, divided navigation into three distinct classes. The following statement and extracts from the laws referred to were prepared by Trade Commissioner Louis Hall, Paris:

ARTICLE 1. The merchant navigation is divided into (1) long-distance navigation, (2) international coasting trade, and (3) national or French coasting trade.

(1) Under long-distance navigation are classified all routes leading north beyond 72° north latitude, south beyond 30° north latitude, west beyond 16° west of the Paris meridian, and east beyond 44° east of the Paris meridian.

(2) International coasting trade comprises routes within the above limits, but between a French or Algerian port and a foreign port. This classification also includes routes between any two foreign ports which are at the same time within the limits shown above. Iceland and its territorial waters, though falling beyond the above limits, is nevertheless included in the so-called "international coasting trade" zone.

(3) The national or French coasting trade includes all routes between two French or Algerian ports.

COASTING TRADE OF THE NATION PROPER

The coasting trade of France as defined above is open only to ships of national registry. Under no circumstances are ships of foreign register allowed to transport merchandise of French origin between two French ports. The law of September 21, 1793, reads, in part:

ART. 3. The importation into France of all foreign merchandise by other than French ships or ships registered in the country of origin of the merchandise is prohibited under penalty of confiscation of the ship, its cargo, and a fine of 3,000 francs. (This part of the law was abolished by decrees of May 19, 1866, and July 28, 1873, but the penalty still remains applicable in case of violation of article 4.)

ART. 4. Foreign ships are forbidden to transport merchandise, raw materials, or other products or manufactures of France and its colonies or possessions from one French port to another under penalties as outlined in article 3.

The above law was supplemented by one of April 11, 1906, reading:

A foreign ship, however, is permitted to engage in towing operations in all cases where no tug is immediately available. Towed ships and barges are permitted to enter French ports with whatever tug has towed them at sea.

TRADE BY SEA BETWEEN NATION AND COLONIES

Generally speaking, the trade between France and its dominions, possessions, colonies, and protectorates is not restricted except in the case of Algeria, Tunisia, and Morocco. So far as navigation is concerned, these zones fall under the administration of the French merchant marine.

Article 1 of the law of April 2, 1889, declares specifically: "Navigation between France and Algeria can be carried on only by French ships." The monopoly of navigation between France and Morocco and Tunisia was established by a law of October 20, 1919. The interpretation of these laws is such, however, that ships of Algerian, Tunisian, or Moroccan register are likewise accorded the privilege of engaging in the coasting trade with France.

From the above laws it results that trade between France and its various colonies throughout the world is open to ships of foreign register (with the exception of Algeria, Tunisia, and Morocco). In the case of Government shipments, however, the Government or its

agents are obliged to give preference to a French ship in all cases where foreign competitive rates are equal or higher.

TRADE OF COLONIES BY SEA

The coasting trade of the various French colonies is restricted to vessels of French or French colonial registry. This applies only to routes between two ports both of which are under French administration.

No restrictions exist on navigation between any two French colonies, dominions, possessions, and protectorates. Such navigation is open to ships of all nations.

EXEMPTION FROM FISCAL CHARGES

The declared purpose of French official provisions for commercial shipping is the renewal or enlargement of the national commercial fleet. In providing aid for shipowners the foreign-tonnage market has not been overlooked, and when vessels can not be built in France within certain cost limits the prospective buyer or builder may obtain Government aid in the acquisition of foreign tonnage. On the other hand, duties, import taxes, registration fees, and foreign-repair penalties largely offset the benefits that might apply to the purchase of certain tonnage, especially of low-grade cargo vessels. The maritime credit law of August 10, 1929 (see p. 158), aimed to abolish this burden and to simplify the process of selling or buying vessels in and out of registry.

The various elements that entered into consideration for relief, the processes by which relief was planned, and the final provisions of law covering them appear in the following discussion, which is based principally upon the report submitted by Deputy Rene Coty and upon the text of the law of August 10, 1929. M. Coty stated among other things:

TRANSFER TAXES ON FRENCH VESSELS

The law of April 21, 1818, provided for a fixed fee of only 1 franc for transfer of ownership of vessels. This fee was increased to 3 francs by the law of April 7, 1902, article 22. The law of December 30, 1916, substituted a progressive fee of 0.5 per cent ad valorem, which rate was increased to 5 per cent by the law of June 25, 1920; to 6 per cent by the law of March 22, 1924; to 6.6 per cent by the law of July 13, 1925; then reduced to 3 per cent by the law of April 29, 1926, but only for vessels intended to become French or remain in French hands.

French vessels purchased in a foreign country also bear a customs duty fixed at 8.50 francs according to the general tariff and 3.40 francs according to the minimum tariff per gross ton by virtue of the law of April 6, 1926. To these taxes there must be added, at least for vessels not entitled to maritime credits, the import tax established by article 22 of the decree of December 23, 1926, at 2 per cent of the value of the imported vessels, including customs duties.

Compared with these taxes, imposed on the purchases and sales of vessels in France, what is the situation of foreign merchant marines? The following table will answer this question:

TABLE 33.—DUTIES, FEES, AND REPAIR TAXES ON FRENCH AND FOREIGN VESSELS PRIOR TO LAW OF AUGUST 10, 1929

Country	Duties	Import tax	Registration fee	Penalties for repairs made in a foreign country
France.....	8.50 francs or 3.40 francs per gross ton, depending on whether subject to general or minimum tariff.	2 per cent except for vessels entitled to maritime credit.	3 per cent if purchased in France or in a foreign nation; 5 per cent if sold in a foreign nation.	For repairs costing over 15 Francs per gross gauged ton, duties and import tax must be paid.
England.....	None.....	None.....	Small fee: £1 per 100 ton vessel; £7 per 5,000-ton vessel.	None.
Germany.....	None.....	None.....	(At Hamburg): 8 to 80 marks on amounts from 5,000 to 500,000 marks; 14 marks per 100,000 marks additional.	None.
Italy.....	None.....	None.....	Fixed fee, plus graduated fee of from 0.55 to 1 per cent.	None.
Belgium.....	None.....	None.....	1 per cent up to 10,000,000 francs, 0.5 per cent on amounts of over 10,000,000 francs.	None.
Netherlands.....	None.....	None.....	1.50 florins.....	None.
Norway.....	None.....	None.....	5 kroner up to 100 tons, plus 2.50 kroner per 100 tons additional fee.	None.

Article 3 of the law of August 10, 1929, reads in part:

The registration of all documents relating to sales or transfers of property or the profits of a vessel is subject only to the established fee of 22.50 francs (\$0.88).

IMPORT DUTIES

Complete ships.—Article 4 of the law of August 10, 1929, exempts seagoing vessels from import duties when imported into France.

Hull materials.—Article 5 of the law of August 10, 1929, amends article 13 of the law of August 1, 1923, as follows:

Shipments of finished or unfinished articles or products to be used for the construction, rigging, fitting out, repairing, or transforming of ocean vessels of the merchant marine or fishing boats shall, when imported into France or Algeria, be exempted from the charges specified in the customs tariffs as well as the import tax, provided it is proved, within the periods established by decrees, that the said finished or unfinished articles or products are intended for the purposes indicated.

However, this exemption as to the charges provided in the customs tariffs does not apply to navigation machinery and auxiliary machinery of all kinds, boilers, electric machinery and equipment, mechanical parts, anchors, chains and cables, cordage, fishing nets and machines, sails, and the usual movable objects of all kinds, such as furniture, table utensils, table covers, linen, etc.

Foreign repairs of French vessels.—In respect of French vessels in foreign yards the Coty report has the following to say:

Article 8 deals with the delicate matter of repairs. It is superfluous to stress the fact that a vessel operating in territory where its owners are not entitled to tariff protection may, for its daily operation needs, require repairs at the place where it is located; consequently, even in a foreign port. Up to the present time a vessel was, in principle, considered as having lost its status as a French ship if it was repaired in a foreign country at a cost exceeding 15 francs per gross ton and was therefore subject to customs duties and import tax. It was obvious to anyone that this cost limit of 15 francs, established prior to the war, was not in accord with present prices of materials, etc. The purpose of article 8 is to increase the 15-franc limit to 100 francs.

Article 8 of the law of August 10, 1929, reads in part:

French vessels may not be refitted or repaired in a foreign country under penalty of being subject to the customs duties for the materials or objects used for such work, if the refitting or repairing expenses exceed 100 francs per gross gauged ton, unless the necessity of much greater expenses is proved by a report signed and certified by the captain and other officers of the vessel, verified and approved by the consul, or, if deemed necessary, by the certificates of one or more experts appointed by the latter, or, instead of the experts, by two French merchants residing in the foreign country.

TAX ON BUSINESS TURNOVER

Article 14 of the law of August 1, 1928, exempted from business-transaction taxes all deals concluded by shipowners with French shipbuilding yards to build vessels if the work was commenced within five years from March 1, 1928. This provision is extended by article 7 of the law of August 10, 1929, which exempts from business-transaction taxes:

Business transacted by shipbuilding yards and consisting in constructing, repairing, or altering French or foreign ocean vessels of the merchant marine, or fishing vessels, as well as business transacted by the constructors of motors, boilers, auxiliary equipment, or spare parts and consisting in the sale, repair, or alteration of the said material used for those vessels; Transactions consisting in the sale of machinery and fishing nets for sea fishing, as well as the delivery to shipbuilding yards and constructors of motors and boilers, of finished or unfinished products and articles intended for the constructing, equipping, fitting out, repairing, or altering of ocean vessels of the merchant marine or fishing vessels.

PREFERENTIAL RAILWAY RATES

Preferential railway tariffs on goods going to foreign non-European countries formerly were in effect, provided such goods were carried on French vessels. While such preferential arrangements have been in force between various railways and the leading overseas shipping lines, the general opinion seems to be that these provisions have no effect and that they are not popular with the shipper owing to the liability of having such cargo delayed in favor of full-rate cargo.

According to Trade Commissioner Louis Hall, Paris, May 6, 1930, no reciprocal rate arrangements now exist between French railroads and ocean steamship lines, the two groups of carriers being entirely independent of one another in the matter of rate fixing.

GERMANY

ECONOMIC DEVELOPMENT AND SHIPPING

The pre-war expansion of German shipping was the result of certain economic forces that took the shape of industrial and territorial expansion and the outward movement of nationals. The Imperial Government undoubtedly exerted a strong influence in the entire shipping movement, but this influence must be sought in indirect stimulation through proper placement of the shipping industry in respect of the national economy and in official and popular sympathy with the development of sea power.

Imperial Germany did not fit the popular conception of a maritime people or of a nation largely dependent upon the sea for its national existence, and the Imperial Government did not expend public funds in the development of shipping except in the case of one or two postal-subsidy contracts of rather limited duration and scope. Nevertheless any consideration of the German merchant marine would be incomplete without some discussion of the obscure but interesting influences that were at work contemporaneously with the growth of German sea power.

FORMATION OF GERMAN EMPIRE

The German Empire was founded in 1871; it endured for 47 years. This period witnessed enormous industrial expansion. This rapid development, with its accompanying program of national defense, both by land and by sea, is an example of the effect of a combination of favorable economic conditions with a highly centralized government.

Pre-war Germany was formed by a succession of events in and by which Prussia fought Denmark and annexed Schleswig-Holstein in 1864, annexed Hanover and defeated Austria-Hungary in 1866, and defeated France and annexed Alsace and Lorraine in 1870-71. Two fundamentally important economic results followed—the newly formed Empire acquired the Lorraine iron-ore deposits which later became the basis of German industrial expansion, and obtained access to the North Sea through Prussia.

This provided the new Empire with a geographic layout consisting of some 26 political units in central Europe, including the free cities of Hamburg, Bremen, and Lübeck, and a territory of some 200,000 square miles in the heart of Europe surrounded by Russia, Austria, Switzerland, France, Belgium, the Netherlands, and Denmark, with outlet to the North Sea by way of the Weser and Elbe Rivers and to the Baltic by the Oder. The Empire thus found itself the guardian of 4,500 miles of land frontiers and a small but highly important seacoast, which became to a large extent the outlet for the flow of

German sea-borne trade through the Strait of Dover, down the English Channel, and into the Atlantic as well as to the north.

An important factor in the subsequent development of shipping was the organization of the German State Railways. From a geographic point of view the problem somewhat resembled the early railroad development in the United States—the component States had to be tied together by railways. From a political point of view the difficulties were vastly different, in that each German State or principality had its own customs provisions, which formed a barrier to the proposed Government railway system. The Zollverein, or customs union, had provided the main cement to German unity at various times since 1828. By article 33 of the German constitution adopted in 1871 the Zollverein was administratively and legislatively included in the new governmental set-up. The customs union made possible the industrialization of the German States; but the railway program in 1873 faced the problem of 63 railway provinces and 1,500 tariffs. In 1871 three-fourths of the German railroads were in private hands; by 1896 only some 2,000 kilometers remained privately owned, and completion of the general program of State ownership came in 1882. The influence of the German State Railways upon shipping will be referred to later.

POPULATION AND EMPLOYMENT

Seafaring was fostered along with the growth of the shipping industry as a part thereof. The German was not naturally a seafarer, seldom came in touch with the sea, and traditionally preferred his forests and his land until industrial opportunity presented itself or he migrated to other places of opportunity.

The new Empire could not be called an agricultural country by natural conditions for as a rule only by intensive treatment could the soil be made productive. The trend from agricultural to industrial endeavor is marked by the shift of occupation. Thus in 1850 65 out of every 100 persons in Germany were classed as agricultural, 47 out of every 100 in 1882, 40 out of every 100 in 1895, and 37 out of every 100 in 1907. The proportion of industrial and commercial population rose from 36 per 100 in 1882, to 40 per 100 in 1895, and to 42 per 100 by 1907.¹

German foreign trade had a corresponding increase. In 1880 German exports and imports had a total value of 8,725,000,000 marks and in 1913 had reached a total of 22,577,000,000 marks. Between 1874 and 1913 exports of manufactures rose from 39 per cent to 75 per cent of the total export trade; exports of agricultural products and animals during the same period declined from 27 per cent to 10 per cent. By 1913 one-third of the population of Germany was dependent upon imported food.

WATER-BORNE COMMERCE

The nearest approach to official data on Germany's sea-borne trade appears to be entrances and clearances of vessels in and out of ballast, without regard to total cargo carried. A rough estimate of

¹ Statistisches Jahrbuch für das Deutsche Reich, 1909.

the trend of sea-borne traffic may be made from these statistics, showing 29,359 ships of 1,675,498 net register tons as entering German ports in 1887 and 56,544 ships of 5,397,913 tons entering in 1911. Import tonnage rose 4½ times in volume from 1870 to 1913, and export tonnage increased 6 times during the same period. The portion of Germany's sea-borne foreign commerce carried in German ships is not clearly indicated in official statistics. A British Department of Overseas Trade report on economic conditions in Germany to July, 1930, states: "The participation of the German flag in the total traffic increased from 51.5 per cent in 1928 to 53.2 per cent in 1929."

In the general expansion of the overseas trade of Germany the German traffic system combined rail, inland-waterway, and ocean movement of cargo and passengers. The merchant fleet was assigned its proper place in the distributive system, and national industry through various means allied the shipbuilders, the shipowners, and the financiers in a common cause. The German national industrial scheme was one of parallel development of production, distribution, and financing of the foreign trade.

THE GERMAN COMMERCIAL FLEET

RISE OF GERMANY AS A SEA POWER

Emperor Wilhelm II ascended the throne in 1888. Bismarck resigned in 1890. The rapid expansion of sea power, both commercial and naval, took place during the next two and a half decades, principally during the 15 years from 1898 to 1913. In 1890 the German steam-vessel tonnage in ships of 100 gross tons and upwards amounted to 1,054,895 tons, while the British fleet of the same type and class was 8,653,543 gross tons. In 1913 the British merchant fleet of 4,000-gross-ton vessels and over had reached 1,446,486 tons, while the German fleet of similar size vessels had reached 1,119,537 gross tons. The rapid development of Germany as the second sea power of Europe had been the result of economic conditions and commercial enterprise.

By its geographic situation and limited seacoast Germany could not be considered a maritime nation except in so far as some of the German city-states, such as Hamburg, Bremen, and Lübeck, were centers of the Hanseatic League, which dominated the commerce of the Baltic and North Seas and of Europe for several centuries following the opening of the trade routes to the Far East. These independent city-states remained great commercial shipping points. The Baltic and North Seas are connected by the Kiel Canal, which cuts through Germany, facilitating transportation between the two German seacoast regions.

Hamburg has grown enormously during the past 30 years, being the chief distributing center for central Europe not only for the products and manufactures of Germany but also for the products of the rest of the world. The shipbuilding industry in Hamburg is very important, ocean steamers of the largest class having been built there. After Hamburg, Bremen ranks as chief port in Germany for international trade.

Lübeck's commerce on the west end of the Baltic has been diminished by the competition of Hamburg and Bremen since the construction of the Kiel Canal. In order to compete with these two cities Lübeck extended its quays and opened a canal in 1900 between the Trave and Elbe, also deepening the water at the wharves to 25 feet. Lübeck trades principally with the Baltic States and Scandinavia.

The decline of tonnage in Baltic Sea shipping was largely due to the practical elimination of sailing vessels in that trade. The decline in sailing tonnage in the North Sea trade was comparatively slow, due to the increasing use of barges, which have been included in this classification.

Previous to 1890 the increase in total tonnage was not rapid, the gain during the period 1875-1890 amounting to 348,531 net tons. On July 1, 1895, there came into operation a new ship measurement law, as a result of which the tonnage on steamships was reduced about 18 per cent.

From 1890 on, the development of the German merchant marine has been remarkable. During the period 1890-1912 the steam tonnage increased 270 per cent—principally in the North Sea district.

EFFECT OF EMIGRATION

The foundation upon which the two principal German steamship lines were built was the German and Russian emigrant traffic to the United States. It has been estimated that between 1820 and 1900, 4,500,000 Germans emigrated to America. The greatest rush took place during the period 1880-1892, when some 1,700,000 Germans went to the United States.

Upon the gradual decline of the German movement a Russian-Polish emigrant movement began, which increased enormously and which brought about the construction of the *Imperator*, the *Vaterland*, and the *Bismarck*.

The influence of the emigrant traffic can not be overstated. The Hamburg-American Line in 1848 made two voyages and carried 168 passengers; 60 years later, in 1907, the line carried 470,290 passengers, 142,000 of the steerage passengers and 33,000 of the cabin passengers being landed at New York. In 1903, when competition between the two German companies had reached its height with the entry of the *Kaiser Wilhelm II* into the New York service, the total number of passengers landed at New York was: North German Lloyd, 36,031 cabin and 119,079 steerage; Hamburg-American Line, 23,965 cabin and 114,458 steerage; White Star Line, 22,418 cabin and 45,705 steerage; and Cunard Line, 18,522 cabin and 33,957 steerage.²

The emigrant traffic provides an example of indirect Government aid. In 1892 a great Russian cholera epidemic broke out. Control stations were established by Germany on the border for the inspection of Russian emigrants who were on their way to the United States. While the stations were ordered by the Government, the management and expenses of their operation were provided by the steamship companies, with the result, it was charged by competing companies, that this stream of immigration was divided largely between the North German Lloyd and the Hamburg-American Lines on a 56-44 per cent basis. The importance attached to this arrange-

² Engineering (London), Feb. 5, 1904, p. 199.

ment was such that by articles 322 and 368 of the treaty of Versailles, Germany undertook not to exercise any control over transmigrating emigrant traffic through technical, sanitary, or police measures. These articles read:

ART. 322. Germany undertakes neither to impose nor to maintain any control over transmigration traffic through her territories beyond measures necessary to insure that passengers are bona fide in transit; nor to allow any shipping company or any other private body, corporation, or person interested in the traffic to take any part whatever in, or to exercise any direct or indirect influence over, any administrative service that may be necessary for this purpose.

ART. 368. Germany shall not apply specially to such through services, or to the transportation of emigrants going to or coming from the ports of the Allied or Associated Powers, any technical, fiscal, or administrative measures, such as measures of customs examination, general police, sanitary police, and control, the result of which would be to impede or delay such service.

INFLUENCE OF NAVY LEAGUE

One of the most influential organizations in Germany was the Navy League. The league had a membership numbering over 1,000,000, active and honorary; published a periodical with a circulation of 400,000; carried on a vigorous campaign for a big navy; sent its members to ports on excursions to see ships; held exhibitions with pictures and lectures; supported homes for seamen and scholarships for students, and finally presented a gunboat to the nation as a gift out of its surplus funds. The leading spirit of the organization was Admiral von Tirpitz, head of the German Navy.

At Kiel, the home of the naval technical school and of wide naval activity, were held annual yachting events rivaling those of Cowes and Newport. While naval and sport events in North Sea and Baltic ports had no direct influence upon merchant shipping, they are indicative of the effort put forth to make of Germany a great sea power and to make the nation ship-minded. The heavy German trade through Antwerp in Belgium and Rotterdam in the Netherlands was a national regret, and these events served to focus public attention upon the German seacoast.

A more direct appeal was made to the essential seagoing personnel itself. When ships' captains and crews performed feats of spectacular character, they were given public recognition by the awarding of imperial medals.

GROWTH OF THE MERCHANT MARINE

Under the peace terms that ended the World War Germany surrendered its merchant fleet as reparation for the damage done by German submarines, ceding all merchant ships of 1,600 tons gross and upwards, one-half (tonnage basis) of those between 1,000 and 1,600 tons gross, and one-quarter (tonnage basis) of all steam trawlers and fishing boats. Likewise, Germany agreed to construct for the Allied and Associated Governments a maximum of 200,000 gross tons of vessels annually for three years, but this provision was waived by common consent. A program of reparation in kind also was agreed to.

Under these provisions the German Government had surrendered more than 2,500,000 gross tons to the Reparations Commission by the

early part of 1923, and the tonnage so delivered was valued by the commission at 707,466,269 gold marks (\$168,377,000).

The rapid pre-war development of commercial and military sea power in Germany and the equally rapid postwar recovery of German commercial shipping are unique in the history of shipping. Measured in terms of employment of national commercial shipping in the overseas trades, Germany ranked second before the war. From relative obscurity that position was acquired in less than 50 years. Measured in terms of increase of commercial tonnage since 1921 Germany ranks first, as shown by Table 34.

TABLE 34.—POST-WAR GAINS AND LOSSES IN MERCHANT FLEETS

Year	Increase					Decrease	
	Germany	Norway	Japan	Great Britain and Ireland	Italy	United States	France
1921.....	<i>Gross tons</i> 717,450	<i>Gross tons</i> 2,584,058	<i>Gross tons</i> 3,354,806	<i>Gross tons</i> 19,571,554	<i>Gross tons</i> 2,650,573	<i>Gross tons</i> 14,689,088	<i>Gross tons</i> 3,652,249
1931.....	4,254,601	4,065,506	4,276,341	20,302,905	3,335,673	10,998,606	3,566,227
Gain or loss....	3,537,151	1,481,448	921,535	731,351	685,100	3,690,482	86,022

Neither the physical effort involved in building and acquiring the new fleet nor the credit problem presented in financing the reestablishment is so significant as is the providing of employment for this tonnage. In 1914 the German commercial fleet, according to Lloyd's Register, included 5,459,296 gross tons. In 1931 the tonnage was 4,254,601, or 77 per cent of the German commercial fleet immediately before the World War. Considering the loss of German colonies and the need for maintaining communications with them, the practical cessation of pre-war emigration, the reconstruction of the German oversea commercial structure, and increased oversea tonnage competition, the providing of employment for the new German tonnage is all the more remarkable.

Table 35 presents a striking illustration of the growth of the German merchant marine both prewar and postwar.

TABLE 35.—GROWTH OF THE GERMAN COMMERCIAL FLEET

July 1—	Total commercial fleet ¹	Power-driven vessels ¹	Sailing vessels ¹	July 1—	Total commercial fleet ¹	Power-driven vessels ¹	Sailing vessels ¹
1896.....	<i>Gross tons</i> 1,943,751	<i>Gross tons</i> 1,436,539	<i>Gross tons</i> 507,212	1922.....	<i>Gross tons</i> 1,887,408	<i>Gross tons</i> 1,785,767	<i>Gross tons</i> 101,641
1900.....	2,650,033	2,159,919	490,114	1923.....	2,590,073	2,509,768	80,305
1905.....	3,564,798	3,093,702	471,096	1924.....	2,953,671	2,872,220	81,451
1910.....	4,333,186	3,959,318	373,868	1925.....	3,073,713	3,006,270	67,443
1913.....	5,082,061	4,743,046	339,015	1926.....	3,110,918	3,062,095	48,823
1914.....	5,459,296	5,134,720	324,526	1927.....	3,373,046	3,320,492	52,554
1915.....	4,706,027	4,419,167	286,860	1928.....	3,777,251	3,738,067	39,184
1916.....	4,151,552	3,890,542	261,010	1929.....	4,092,532	4,057,657	34,895
1919.....	3,503,390	3,247,253	256,127	1930.....	4,229,235	4,199,096	30,139
1920.....	672,671	419,438	253,233	1931.....	4,254,601	4,226,050	28,551
1921.....	717,450	654,407	63,043				

¹ Vessels of 100 gross tons and upwards.

Source: Lloyd's Register of Shipping.

The early development of shipping in Germany was not due to any program of Government aid but to several contributing factors, the principal ones being great industrial expansion and a corresponding overseas trade expansion, a heavy emigration to the United States, and large resources of iron ore and coal with which steel could be cheaply produced. The postwar development has had the advantage of experienced executive and seagoing staffs; the advantage of essential trades for which there were no national vessels available until built or purchased; the natural spur of reestablishment. But the Government has not provided the means directly, beyond certain construction bounties, which are of limited scope as compared with the essential tonnage, nor indirectly, except by insistence that nine-tenths of the new tonnage be built in German shipyards.

DEVELOPMENT OF GERMAN SHIPBUILDING

While a limited direct monetary aid was granted by the German Government to certain steamship lines themselves, the indirect, and far more important, consideration was the stimulation of shipbuilding coincident with the expansion of the steel industry and expansion of German colonial and foreign trade. "Made in Germany" became a slogan known the world over on manufactured products. Application of this slogan to German ships was not effected without some difficulty.

Germany emerged from the Franco-Prussian War with an estimated net gain over all costs, direct and indirect, of upwards of \$750,000,000.³ Part of these new resources was made up of a \$300,000,000 valuation then placed on the newly acquired Alsace-Lorraine territory. Germany thus obtained valuable coal and iron-ore deposits, which in the sixties and seventies formed the great essentials for shipbuilding materials in all countries coincident with the beginning of iron and steel ship construction.

Germany now had its own mineral resources and a fair amount of experience in metal manufacture. The leading German shipowners, however, lacked confidence in the products of German yards. Most German tonnage and all the important North German Lloyd and Hamburg-American tonnage had been built in Great Britain. The British product was reliable and well known, and German shipowners as a class at first turned deaf ears to the suggestion that German vessels should be built in Germany.

EFFECT OF INTRODUCTION OF THE METAL SHIP

Standardization and mass production were unknown at that time in the iron and steel industry. The Bessemer steel process was not invented until 1856, and was then no more readily adopted by the British iron industry than were German-built ships by the German shipowners. Only after Bessemer himself had brought his product to a production basis which enabled him to undersell his competitors by nearly \$100 per ton did the British steel industry actively commence operations under his licenses.

³ Giffin, Sir Robert: *Economic Inquiries and Studies*.

The refinement and practical application of the Bessemer process to steel-ship construction was not really effected until 1878. Then the Thomas patents made possible the use of phosphoric ores in steel production. The Alsace-Lorraine territory contained a wealth of high-phosphorus ores and thus provided Germany with an entirely new field of industrial development.

It was some 15 years later before keels were laid in Germany for the North German Lloyd and Hamburg-American Lines. As a result of the lack of naval protection these companies applied for transfer to American registry for the vessels that were in American ports at the outbreak of the Franco-Prussian War.

LINER CONSTRUCTION IN GERMANY

It was in connection with the establishment of postal services that the German Government extended aid to its shipbuilding industry by specifying that all vessels to be used in this service must be constructed in German yards in order to participate in the benefits of subventions. The owners, naturally being anxious to ally themselves with the Government in this important development of the German foreign trade, built the subsidized vessels in Germany. Large vessels, however, were not built in Germany until after 1900.

During the clipper-ship era, when the United States outbuilt the world with the swiftest wind-driven fleet in all history, German constructors were educated in Danish schools and trained by apprenticeship in American shipyards. With the development of the iron and steel industry in Great Britain, Germany, like the United States, was for a time outdistanced by British construction of commercial vessels. The German yards, however, aggressively developed the steel vessel, and so rapidly that in three decades German vessels were active competitors in size and speed with the best products of British yards; during the last decade before the World War it became a case of strong competition in big units.

GERMAN CONSTRUCTION OF LARGE LINERS

Entry of the North German Lloyd *Kaiser Wilhelm der Grosse* in the New York run in 1897 served more than any other previous incident to proclaim the progress of the German shipbuilding industry. When this vessel entered the service it was the largest and fastest vessel afloat, having a gross tonnage of 14,349 and making its first crossing from Southampton to New York (Needles to Sandy Hook) at an average speed of 21.39 knots. This vessel was followed by the *Kronprinz Wilhelm*, the Hamburg-American *Deutschland*, and finally by the *Kaiser Wilhelm II* (now the *Monticello*). The *Kaiser Wilhelm II* was the most powerful vessel built up to that time.

Remarkable indeed was the engineering efficiency exemplified by these vessels. Thus, in 1902, upon the occasion of the visit of Prince Henry to the United States, he crossed to New York in the *Kronprinz Wilhelm* of the North German Lloyd at a speed of 23.27 knots, while the Hamburg-American *Deutschland* three days later finished the same course with an average speed of 23.24 knots, a difference of 203 feet, or one-third the length of the vessel, during each steaming hour. The time was: *Kronprinz Wilhelm*, 5 days 12 hours 47 min-

utes, 3,090 miles at 23.27 knots; *Deutschland*, 5 days 12 hours 38 minutes, 3,082 miles at 23.24 knots.

These two ships were Vulcan designed and built. For approximately 10 years prior to the entry of the Cunard *Lusitania* and *Mauretania*, German-designed and German-built ships held all records for speed, equipment, and popularity. By 1904 the New York post office average-time statement for delivery of mails between New York and the London post office placed four German vessels at the top of the list, their fastest delivery being 18 hours, and the slowest being 8 hours, ahead of the speediest British ships.

The Hamburg-American Line laid down for the New York service the *Imperator*, *Vaterland*, and *Bismarck*, of a combined gross tonnage of 165,000 tons, all in German yards. On June 11, 1913, the *Imperator* went into service, and on May 14, 1914, the *Vaterland*; the *Bismarck* was to follow but, due to the war, was not launched until after the end of hostilities. Completion of the North German Lloyd *Bremen* and *Europa* during 1929 marked the latest achievement of the German shipbuilding industry.

GOVERNMENT AID TO SHIPBUILDING

The German Government did not pay construction bounties as a means of aid to German shipbuilding. On the other hand, certain indirect considerations given the steel and shipbuilding industries furnished a normal stimulus to the development of shipbuilding during a short period of time. These were:

1. A provision that subsidized vessels should be of German construction. Article 13 of the North German Lloyd contract of October 30, 1898, and article 12 of the German East Africa Line contract of July 21, 1900, contained the following stipulation: "The new steamers to be placed in service on these lines shall be built in German shipyards and of German materials, as far as possible. When extensive repairs have to be made, they, too, shall be made in German shipyards as far as practicable."

It has been estimated that in the decade 1885-1894, when the North German Lloyd received an aggregate of 59,000,000 marks (\$14,042,000) in postal subsidies, it paid out to German shipyards 60,000,000 marks (\$14,280,000) for new construction and repairs under this provision. The building of the fleet of the North German Lloyd from 1886 to 1914 cost the company 436,345,865 marks, of which about 88 per cent, or 385,588,065 marks, went to German shipyards.⁴

2. Foreign materials required for the construction, equipment, or repair of vessels other than pleasure craft were imported free of duty by German shipbuilders.

3. In 1885 the German State Railways instituted a reduced freight rate on shipbuilding materials intended for German shipyards. Presumably this was designed as an aid to the steel industry in order that the great interior steel centers might be in a position to compete with imported materials. Specifically the aid consisted in a reduced rate on raw and manufactured articles used in shipbuilding, such as plates, angle bars, anchors, and chains. The rate was applicable from the steel centers on the Rhine to the shipyards at

⁴ 70 Years of North German Lloyd, 1857-1927, p. 57.

Hamburg and Bremerhaven. The rate has been calculated to have been 0.664 cent per ton-mile as against the regular rate of 1.37 to 1.76 cents per ton-mile in United States dollar values, or roughly a 40 to 50 per cent discount off the regular rates.

4. In addition to building the German commercial fleet, the German shipyards were further greatly stimulated and strengthened by the building of the Germany Navy. Between 1900 and 1911 the German Navy tonnage increased from 152,000 to 829,000 tons. German naval expenditures in 10 years rose from \$47,500,000 to \$110,000,000 annually, and out of this total Germany spent one-half for new construction.⁵

This continuity of employment was naturally reflected in reduction of overhead and in resultant lowered costs in production of commercial ships.

POSTAL CONTRACT SERVICES

The German Government provided no direct aid to the shipping industry except through postal subsidies, and then only on two lines that would otherwise have been unprofitable. The policy of mail subsidies did not go into effect until after Germany had acquired colonies, although Bismarck in April, 1881, had first appealed to the Reichstag for a subvention arrangement to the Far East, Australia, and the Pacific islands. In 1884 Germany began its colonization program, and, while this was at first conducted under private charters, something after the model of the early English policy, it gave the necessary impetus to national recognition of chartered companies in the German national interest.

In the years 1884 to 1899 Germany acquired in Africa the possessions of Togoland, Cameroon, German South West Africa, and German East Africa; in the Pacific, the islands of German New Guinea, Bismarck Archipelago, Caroline, Pelew, Mariana, Solomon, and Marshall Islands, and German Samoa; and in Asia, the dependency of Kiaochow; the total area being 1,006,412 square miles.

Passage of the first French ship subsidy law of January 29, 1881, was used by Bismarck as a basis for an exhaustive report to the German Parliament. The Bismarck report was transmitted to the German Reichstag under date of April 6, 1881.⁶ The report is primarily a discussion of the provisions of the French bounty law of 1881, the events that led up to its adoption, the debates on the subject, and a general summary of the French, British, Italian, and United States shipping subsidies. The only mention of German shipping made by Bismarck appears in the last two paragraphs, which read:

Germany pays in the overseas trade to the participating German steam lines a sum in proportion to the weight of the parcels forwarded. At present these allowances amount to 200,000 marks.

It is deserving of serious consideration whether under the circumstances as given German shipping and German commerce can hope for further prosperous developments as against the competition of other nations aided by public funds and assistance.

⁵ Collier, *Price: Germany and the Germans*, pp. 122-123. 1913.

⁶ A complete English translation appears in *United States Consular Reports* Nos. 112-115, January-April, 1890, vol. 32, pp. 108-118.

The principal significance of the Bismarck report was that it was in conflict with Bismarck policy. The German Chancellor's policy was that of intense internal consolidation and advancement of the continental Empire rather than of foreign expansion. He was known as an opponent to the acquisition of foreign colonies and the attendant necessity of protection and for a large navy. It is therefore significant that, as representing the Government, he should acknowledge the necessity of commercial shipping services in developing new territories and should by indirection recommend State aid for that purpose. Consideration by the German Reichstag brought no definite result until German possessions in East Africa were acquired between 1884 and 1890.

NORTH GERMAN LLOYD CONTRACT

Germany's first mail-subsidy contract was concluded between the Imperial Government and the North German Lloyd for services between Germany and Shanghai, with Japanese branch services and ports of call outwards and inwards; from Germany to Australia, with ports of call and feeder lines to the Tonga Islands and Samoa; and a Mediterranean service from Trieste to Alexandria via Brindisi. This contract went into effect in July, 1886.

In its final form the act of 1886 granted the North German Lloyd an annual subsidy of 4,400,000 marks (\$1,047,200) for a period of 15 years for the maintenance of specified mail routes. Of this sum, 1,700,000 marks (\$404,600) was for a line between Germany and China and Japan, 2,300,000 marks (\$547,400) for a line to Australia, and 400,000 marks (\$95,200) for a branch line connecting Trieste with the line to Australia at Alexandria.

TERMS OF ORIGINAL CONTRACT

The original contract with the North German Lloyd contained the following provisions:

Services.—(1) To the Far East: The East Asia line, making 13 voyages annually from Bremerhaven to and from Shanghai, touching at a Netherland or Belgian port to be designated by the Imperial Chancellor and at Port Said, Aden, Suez, Colombo, Singapore, and Hong Kong, with a Korean port (likewise to be designated by the chancellor) to Nagasaki, thence returning to Hong Kong.

(2) To Australia: The Australasian line, making 13 voyages each year from Bremerhaven to Sydney, touching en route at a Netherland or Belgian port, Port Said, Suez, Aden, the Lagos Islands, Adelaide, and Melbourne, with a branch line or feeder from Sydney via the Tonga Islands to Apia in the Samoan group, thence back to Sydney.

(3) In the Mediterranean: A semimonthly line from Trieste via Brindisi to Alexandria.

Speed requirements.—An average minimum speed of 12 knots was required of the vessels operating to and from eastern Asia and those on the Mediterranean line and 11½ knots for those on the Australian line.

Vessel equipment.—For this service the North German Lloyd Co. bound itself to provide nine steamships, of which at least six were to be built specially for the purpose according to most carefully detailed specifications, and the remaining three were to be ready for service within 18 months after the contract was signed. All the

vessels were to be built of German materials, in German shipyards, upon plans approved by the Imperial Chancellor and before going into commission had to be approved by a Government board of experts.

The sale of any of the subsidized steamers was forbidden, except by permission of the Government, and in the event of war the chancellor might take possession of one or more of the vessels at their full value or hire them for a proper consideration. In case of dispute between the contracting parties each was to choose two arbitrators, who should elect an umpire; and the board thus constituted would decide all questions in controversy.

Mails and freight rates.—The agreement contained several clauses fixing the status of postal officers and employees on board and the manner in which the imperial mails were to be handled and forwarded. Hamburg and Bremen were to enjoy equal freight rates, and Government officials, troops, prisoners, and freight were to be transported at rates 20 per cent less than the ordinary tariffs.

CHANGES IN CONTRACT

In May, 1893, the Mediterranean line was discontinued and the subsidy reduced to 4,090,000 marks (\$973,420).

By a law of April 13, 1898, the subsidy was increased to 5,590,000 marks (\$1,330,420) per year under a new contract for 15 years, which took effect on October 1, 1899. This contract called for the use of faster steamers and for a fortnightly instead of a monthly service between Germany and eastern Asia and provided that the speed on this line was to be 13 knots for old steamers and 14 knots for new. On branch lines the speed was to be 12.6 knots, while on the Australian line the speed between ports of call must average 12.2 knots for old steamers and 13.5 knots for new. It was stipulated also that the North German Lloyd should increase, without additional subsidy, the speed of these vessels should foreign competing lines increase the speed of theirs.

To coordinate the steamship service in the Far East a branch or auxiliary line was established between Singapore, New Guinea, and Sydney to connect the principal lines mentioned above with the direct Australian line. This service was performed by the Jaluit Co., of Hamburg, which received a yearly subsidy of 120,000 marks (\$28,560) under agreement concluded in December, 1901.

The connecting lines which the North German Lloyd was to maintain in the Far East were taken over by the Hamburg-American Line in consideration of an annual indemnity of 260,000 marks (\$61,880) paid by the Bremen company.

The subsidy of the North German Lloyd for its steamship services to eastern Asia and Australia was cut in half, the budget for the fiscal year beginning April 1, 1914, providing only 3,045,000 marks (\$724,710) instead of 6,090,000 marks (\$1,449,420) for these services.

It is estimated that in the 28-year period during which the contracts were effective (from 1886 to 1913) the North German Lloyd received an average annual contract payment approximating \$1,200,000, or a total amount of \$34,000,000.

GERMAN EAST AFRICA LINE CONTRACT

Upon its institution the German East Africa Line was granted a postal subsidy as well as the benefit to be derived from reduced railroad rates on goods carried by its vessels. Beginning with May, 1890, an annual postal subsidy of 900,000 marks (\$214,200) was to be paid this company for a period of 10 years, the company undertaking to make 13 voyages annually between Hamburg and Delagoa Bay via the Suez Canal. Furthermore, it was to run coastwise lines, one between Zanzibar and Lamu and the other between Zanzibar and Inhambane. In July, 1900, the contract was renewed for 15 years, and the subsidy increased to 1,350,000 marks (\$321,300). This contract called for vessels of greater speed, for two voyages monthly, and extension of the line to the Cape of Good Hope, with return trips along either the east or the west coast of Africa.

RESULTS OF POSTAL SUBSIDIES

Among contemporary comments on the effects of subsidized services is the following from Kuhlow's German Trade Review No. 243, September 4, 1887, which stated editorially:

Of particular importance in the development of German trade with China is the position occupied by German steamers and coasters. The number and particularly the carrying capacity of the German steamers which afford communication between Germany and China or which transport foreign goods to the latter country are very largely increasing. The success attained by the subsidized steamers of the North German Lloyd Co. deserves to be especially referred to; for over a year the 4-weekly service has appeared to be insufficient. The quantity of cargo offered from Bremerhaven direct to Hong Kong and Shanghai, and vice versa, is so great that little provision can be made for the intermediate ports. The passenger traffic of the English and French lines has also been surpassed. Of the first importance is the circumstance that German shipowners have attained a very influential position in the whole of the coasting trade of China.

This subsidy to the German East Africa Line not only provided regular and fast postal communication between Germany and its East African colonies but also aided to develop German trade and to foster German colonial interests. This has been well stated in the following words:

It is evident that the Government is not trying to subsidize the merchant marine in general. It has not established general bounties for shipowners but has limited its efforts to a well-defined sphere, and in granting subsidies to far eastern and African lines it has sought not so much to encourage shipowners as to make it easier for German capital and commercial activity to enter new countries or colonies—East Africa, New Guinea, Kiaochow. In dispatching steamers flying the Empire's flag to Delagoa Bay, to Shanghai, to Yokohama, and Sydney it has indicated new countries to its emigrants and new markets to its manufacturers and exporters.

When in May, 1900, the Chancellor asked the Reichstag to renew and extend the contract of the German East Africa Line and to increase the Government subsidy he spoke of the "economic importance of the Cape for the development of the German trade and of the need of a port of entry nearer the Cape than Delagoa Bay, but said nothing about the advantages which the shipowners might derive from it."

* Johnston, G.: *L'État et la Marine Marchande en Allemagne*, in the *Revue Politique et Parlementaire*, Dec. 10, 1902, pp. 510-512.

It appears, therefore, that less than \$50,000,000 was expended in direct contract services by the German Government in the three decades preceding the World War and this applied only to services that would otherwise have been unprofitable. Up to 1901 German steamship companies at their own expense had agreed to keep certain vessels in suitable condition for service with the Admiralty.

NAVIGATION BOUNTIES SINCE THE WAR

The World War ended, for the time being, German maritime power. Surrender of German colonies brought an end to postal subsidy contracts and the need for them. In addition to abolition of reduced State Railway rates and control of emigrant traffic passing through Germany, the four great rivers, the Rhine, Elbe, Oder, and Vistula, came under international control.

The only reported instance of a shipping-service subsidy in Germany since the World War is local in character and is confined to the Baltic, connecting the city-state of Lübeck with the Baltic ports of Riga, Reval, and Leningrad. The following statement on the service was printed in Commerce Reports for October 20, 1924, and is based upon a report by Vice Consul Charles B. Dyar, Hamburg:

The legislature of the city-state of Lübeck recently voted to advance the sum of 450,000 marks (\$107,100) as a subsidy to a new steamship company which will maintain regular services between Lübeck, Riga, Reval, and Leningrad. This line is being established to promote Germany's trade with Russia and the border States.

The decline of Lübeck as a port has been very pronounced since the war. Long-established services with Baltic ports became irregular or were abandoned altogether, resulting in a diversion of Baltic freight to Hamburg and Bremen. With the decrease of the business of the port the danger of the removal of large business and forwarding firms became imminent. It was evident that reliable and regular lines of communication must be reestablished if the total eclipse of this ancient Hanseatic city was to be avoided.

The plan of subsidizing existing steamship companies was considered, but finally rejected. The contract with the new line provides guaranties against the removal of the line to any other port or its operation in any way detrimental to the interests or contrary to the wishes of the Government. The capital advanced is repayable in installments until 1934, at which time the State reserves the option of further participation in the line on advantageous terms.

The State realizes that the sum appropriated may not be the last required to keep the new line in operation; but even if operated at a loss for a considerable period the general economic benefits are deemed to outweigh the temporary expense.

The private shipping companies of Lübeck appear to have accepted the situation, and it is expected that the local railroad authorities will do their part to facilitate the increase in exports.

GERMAN MARITIME CREDIT

REHABILITATION FUND OF 1917

During the war the German Government laid plans to rehabilitate its shipping. When the United States entered the war there were some 600,000 tons of seized German vessels in American harbors. A bill introduced in the Reichstag on July 11, 1917, and enacted on November 7, 1917, provided funds to enable German shipowners to replace vessels that had been destroyed by the enemy and to reim-

burse them for expenses incurred by vessels that were interned in foreign ports.

The purpose of the act was to make it possible for German shipping to resume operations immediately upon the declaration of peace. The shipowner was to give to the Government title to the ship or pay 5 per cent interest on the amount provided by the Government from the day the vessel went into commission. He likewise agreed to insure the vessel in favor of the Government, to reimburse the Government for the amount of this principal according to terms to be laid down by the Chancellor, and not to sell or charter the ship to aliens without the consent of the Government.

The law further provided that if the cost of construction after the war should be greater than in 1914 the Government could grant supplementary amounts of 60 to 80 per cent of the original sum during the first three years, 40 to 60 per cent during the next three years, and 20 to 40 per cent during the following three years. In November, 1918, the Reichstag passed a law adopting the cost of construction as of October, 1918, as the cost basis of vessels for further calculations.

RECONSTRUCTION FUND OF 1921

In 1921 German shipowners requested the sum of 37,000,000,000 marks from the Government with which to replace the fleets that had been turned over to the Allies or had been lost. A compromise was effected and approved by the Reichstag March 12, 1921, under which a shipowners' trust or bank was to be organized to handle funds appropriated by the Government. The sum of 4,700,000,000 marks was voted. Previously 3,500,000,000 marks had been voted but not expended. Other credits had been extended in 1919 and 1920, so that a total of 11,970,000,000 marks had been placed at the disposal of the owners. An arbitration tribunal subsequently decided that the Government must advance a further sum of 18,000,000,000 marks demanded by the shipowners' bank, making in all an appropriation of 30,000,000,000 marks.

In return for these grants the shipowners agreed: To build or buy within 10 years, beginning January 10, 1920, 2,500,000 dead-weight tons, or one-third the tonnage lost to Germany as a result of the war; to build 90 per cent of the tonnage in Germany; to have 95 per cent of the German shipowners assent to the provisions.

In 1921 and 1922 German yards launched 437 ships of 1,084,000 dead-weight tons, so that in two years upwards of half of the 10-year program had been met, although not all of this construction came under the plan. At the time of the agreement the German mark was quoted 60 to the dollar and the agreement assumed as a valuation per ton the sum of 4,000 marks, or \$67.

By a decree of July 29, 1921, German shipowners were forbidden to repurchase surrendered tonnage in excess of 150,000 tons, and such purchases were to be made from their private funds. This regulation was further restricted in September, 1921, to prohibit such repurchase to any company that had not been in the business prior to June 17, 1921. This prohibition was apparently not stringent, since the German Shipping Yearbook for 1923 indicated that 130 ships of 491,600 gross tons had been repurchased.

CONSTRUCTION LOAN FUND OF 1925

In the early part of 1925 the German Government authorized a loan fund of 50,000,000 marks (\$11,900,000), to be made available for new construction under certain conditions. The basis and operation of the loan were somewhat after the manner of the British trade facilities act (see p. 256), the main purpose being to decrease unemployment in the German shipbuilding industry. Under this plan loans were granted up to 50 per cent of the construction price agreed upon with the shipyard, the remainder being supplied by the builder or shipowner, as the case might be. Interest on this loan was established at 4 per cent during the first year after completion of vessel and 5 per cent and 6 per cent in the following years.

The 50,000,000-mark fund was exhausted by October 15, 1926, and in December announcement was made that the interest accruing to the Government would be employed in reducing interest charges on money expended by shipowners between October 16, 1926, and March 31, 1927, on new vessels or for any conversion by which the economic value of existing vessels might be increased. In effect, this plan subsidized the German shipowners to a small extent by absorbing the interest cost differential that he must pay for money in the open market as compared with the interest charges he paid to the Government for its 50 per cent advance against new construction. The usual stipulations as to German yards and German material were included.

In a British Board of Trade report on economic and financial conditions in Germany to July, 1927, appears the following statement on the workings of this loan fund:

As the Government credit of 50,000,000 marks placed at the disposal of shipping firms early in 1925 was exhausted on October 16, 1926, the Government produced a further scheme of financial assistance under which an annual amount of 3,000,000 marks (\$710,000) is to be provided during a period of six years. These sums will be used for making advances in respect of new construction. The advances will be on a sliding scale as follows: During the period of construction and the first year following delivery, 3½ per cent of the value of the order; subsequently the contribution will be reduced yearly by 1 per cent. In the case of orders of less than 3,000,000 marks, 4 per cent of the value will be granted. The average rate of the Government advance in respect of annual interest will remain at 2½ per cent below the prevailing Reichsbank rate. For smaller orders the advance may, however, exceed the Reichsbank rate. If the order exceeds 10,000,000 marks in value, or should an order be placed with one yard for several vessels of the same type, the above procedure may be modified.

The funds for such advances will be contributed three-quarters by the Reich and one-quarter by the government of the State in which the order is placed.

The city-state of Hamburg allotted the sums accruing in respect of interest on its share in the 50,000,000-mark loan as follows: For the financial year 1926-27, 135,000 marks; 1927-28, 270,000 marks; 1928-29, 230,000 marks; 1929-30, 190,000 marks; 1930-31, 190,000 marks; 1931-32, 190,000 marks; 1932-33, 95,000 marks.

By November, 1926, it was estimated that under this loan-fund plan Blohm & Voss, of Hamburg, had obtained 10,000,000 marks, the Vulcan Yard at Vegesak about 8,000,000 marks, the Flensburger Shipbuilding Co. about 2,250,000 marks, the Weser Yard at Bremen 4,000,000 marks, and the Vulcan Yard at Hamburg 1,500,000 marks.

**GOVERNMENT AID TO PRIVATE SHIPYARDS
REFINANCING OF SCHICHAU YARD**

Under date of April 29, 1929, Trade Commissioner James T. Scott, Hamburg, reported:

For some time past negotiations have been going on between the Schichau shipbuilding yard of Danzig and Elbing and the German Government regarding the refinancing of the Schichau yards, which were in financial difficulties. The German Government was a large shareholder of the Schichau concern and consequently was appealed to for assistance.

The discussions between Government circles and the Schichau concern finally resulted in a plan being drawn up whereby the form of the company should be changed to a joint-stock company and the German Government should make an initial payment of 14,000,000 marks—and, if necessary, grant regular allowances, which may not exceed 2,340,000 marks during the first year's working of the new company.

Again, on June 14, 1929, Mr. Scott reported:

So far as is at present known, the Schichau concern is to be converted into a private limited company, with a capital of 12,000,000 marks, in three to four months' time.

The German State, Prussia, and Danzig and Elbing industrial circles are interested in the new company which is to operate the Schichau yards. The German State, however, having supplied approximately two-thirds of the working capital, has the dominating influence in the operation of the new Schichau company, which will take over the yards and workshops of the Schichau concern in Elbing, Danzig, Pillau, and Riga, as well as a castle and workers' and clerical employees' houses belonging to this concern at Elbing and other places, and the Schichau Steamship Co.

AID TO DEUTSCHE WERKE OF KIEL

Under date of June 26, 1929, E. Talbot Smith, consul in charge, Hamburg, reported:

The German Government, having already previously guaranteed to be responsible for the losses of the Deutsche Werke of Kiel, a large shipyard formerly owned by the German Navy, whose losses during the past few years amount to about 2,500,000 marks (nearly \$600,000) per year, the German Finance Minister has just proposed to pay a subsidy of 7,000,000 marks (\$1,666,000) for 1929 to this shipyard for the purpose of keeping its staff of 6,000 workmen employed and ready for any naval emergency. This proposal is strongly objected to in an announcement recently made by the Association of German Shipyard Owners, at Hamburg, in which it is declared that all State subsidies to shipbuilding constitute a grave danger to the private shipbuilding industry.

It is further stated in the protest that the Government subsidy to be paid to the Kiel yard will in effect continue to be a subsidy to foreign shipowners, who can purchase vessels from Kiel at ruinously low prices, since the subsidy makes it possible for the Kiel yard to build vessels more cheaply than other German yards. It is averred that the advantages sought through the subsidy, namely, to fight unemployment among the Kiel workers, are more than offset by the severe economic disadvantage to the industry as a whole by making it extremely hard, if not impossible, for the other nonsubsidized German shipyards to compete with the subsidized Kiel company.

PRIVATE SHIP-MORTGAGE BANKS

While having no direct bearing on the subject of State aid to shipping, an interesting development in shipping finance followed the depreciation of the mark, by which shipping companies profited by doing business on the basis of dollar revenues and mark expenditures.

In February, March, and April of 1918 the German Ship Loan Bank (Inc.), of Hamburg, the German Ship Credit Bank (Inc.), of

Duisburg, and the German Ship Mortgage Bank (Inc.), of Berlin, were founded. The purpose of these banks as expressed in their charters was the development of credit to ships by means of mortgage loans, participations in vessels, the dealing in mortgages and mortgage rights, the issuance of ship-mortgage letters, and generally to promote, take part in, and develop the German shipping industry. The banks were subject to the regulations of the Reichsbank, the main provisions being that loans should not exceed 60 per cent of the value of the vessels or vessel participations and should be repayable in 10 years.

These banks were in effect permitted to enter into a partnership with the shipping industry instead of doing business on a straight banking basis. The banks naturally worked in the interest of shipping development and formed an outlet for German shipping securities to the buying public.

After a promising beginning these three institutions went through the inflation period of German currency and got into financial difficulties. The Government forbade the banks to grant loans on any basis but German currency. Since these loans were made for short periods, they soon began to flow back into the banks at depreciated values and were again invested by the banks at further depreciated values. The shipping companies did business on the dollar basis and paid their obligations to the banks in German currency, with the net result that the assets of the banks became practically a total loss.

SHIPPING FINANCE

UNITED STATES CAPITAL IN GERMAN SHIPPING

North German Lloyd loan.—The North German Lloyd \$20,000,000 loan offered and taken in New York in 1927 bears 6 per cent interest and is for a term of 30 years. Concerning this flotation Moody's Industrials for 1929 says:

At time of issuance of the bonds it was estimated that the individual Dawes Plan debentures to be issued by the company would not exceed \$3,500,000, in respect of which the maximum annual charge would be \$210,000. However, when the assessments were definitely determined April 20, 1928, the individual obligation was fixed at \$8,557,738, with maximum annual total charges of \$513,464. Payment by the company for year ending September 1, 1928, was \$185,325.

In November, 1928, 175,000 so-called "American shares" were offered at \$69. These shares were issued against 35,000,000 marks par value of common stock and carried the voting rights represented by common stock of 1 vote for each 20 marks par value. An initial dividend of \$3.41 per American share was declared payable April 5, 1929, to holders of record of March 30, 1929.

Hamburg-American loan.—In 1925 a 6½ per cent, 12-year marine-equipment bond issue in the amount of \$6,500,000 was offered for the Hamburg-American Line.

"Hansa" loan.—In October, 1929, a \$5,000,000 6 per cent, 10-year capital issue was offered in the United States by the Hansa Steamship Line.

FINANCIAL POSITION OF GERMAN SHIPPING

The following editorial comment of the British shipping publication, *Fairplay*, for October 4, 1928, is quoted in respect of the financial position of German shipping:

When, after the war, it was decided that Germany should hand over practically the whole of her overseas ships to the Allies, many people were of the opinion that it would take many years before she could regain anything like her pre-war position in the shipping trades of the world. To-day, not only has she acquired tonnage representing 80 per cent of her pre-war strength, but the vessels are of the most modern type, and, owing to the inflation after the war and the subsequent deflation, the directors of the various companies have been able to place the finances of their companies on a very sound footing. It is stated that German shipping companies, with a paid-up capital of £17,511,250 (\$85,218,500), paid in dividends for 1927 £1,422,287 (\$6,921,600), which represents 8.12 per cent, against 5.18 per cent paid last year by British companies. But, before paying this dividend, ample provision was made for depreciation, and, as the indebtedness is comparatively low when regard is had to the market value of the ships, which stand in the books at much less than their market value—the Norddeutscher Lloyd fleet stands at only £12 (\$58) per gross ton, against £31 (\$150) for the Peninsular & Oriental and about £20 (\$97) for the White Star Line—it is no exaggeration to say that the financial position of the German shipping companies to-day is far better than that of most old-established foreign shipping companies. When, however, in addition to their present strong financial position it is realized that German shipowners have an asset for which no provision has been made in the balance sheets, that is, the receipt of a sum approaching £20,600,000 sterling (\$126,000,000) in respect of their steamers seized by the United States Government when it entered the war in 1917, their financial position is exceptionally strong.

PREFERENCES AND RESTRICTIONS

RESERVATION OF THE COASTING TRADE

The German seacoast is of comparatively small extent and offers little support for the development of a merchant marine. The highly developed system of canals and railroads in Germany affords, on the whole, a more direct and efficient means of transportation between points located along the seaboard than is possible on the North and Baltic Seas, although the Kiel Canal shortens, by hundreds of miles, the journey between points on the North Sea and the Baltic.

In a report of May 20, 1929, Assistant Trade Commissioner A. Douglas Cook, Berlin, stated:

According to the German law covering the coasting trade, effective January 1, 1882, this coastal trade is in theory restricted to vessels of German registry. In practice, however, the majority of the larger maritime nations are permitted to engage in it. The four principal paragraphs of this law are summarized as follows:

(1) The right to load goods in a German port and carry them to another German port and there discharge them is reserved for German vessels.

(2) Masters of foreign vessels breaking this law are liable to a fine not exceeding 3,000 marks, and in addition to the fine the vessel as well as the unlawfully carried goods are liable to seizure.

(3) Foreign ships may be granted this privilege by royal decree or treaty.

(4) Existing special agreements and treaties are not affected by this law.

The United States, although not granting German vessels the right to engage in American coasting trade, has secured permission for American vessels to participate in the German coasting trade by virtue of the German-American commercial treaty ratified October 15, 1925. Article XI of this treaty reads:

"The coasting trade of the United States is exempt from the provisions of this article and from the other provisions of this treaty, and is to be regulated according to the laws of the United States in relation thereto. It is agreed,

however, that the nationals of either high contracting party shall within the territories of the other enjoy, with respect to the coasting trade, most-favored-nation treatment."

The German Federal Traffic Ministry (Reichsverkehrsministerium) advises that although the vessels of the majority of the larger nations are permitted by treaty to engage in the German coasting trade, their actual participation in this trade is relatively small.

EXEMPTION FROM FISCAL CHARGES

IMPORT DUTIES

Germany long pursued the policy of granting free admission to foreign-built seagoing vessels and to foreign-built vessels, other than pleasure craft, for navigation on rivers and lakes, and this policy was followed even after the domestic shipbuilding industry had developed to a point where it was able to turn out the tonnage demanded by German shipping interests. Although there was no general requirement that vessels seeking registry in Germany must be built in German yards, it was nevertheless required, as has been stated earlier, that the vessels of subsidized lines must be of domestic construction.

Also, as was stated on page 179, foreign shipbuilding materials are admitted free of duty.

PREFERENTIAL RAILWAY RATES

One of the greatest agencies in the promotion of German shipping was the German State Railways system. This Government-owned transportation system, said to be the largest in the world under one management, with a mileage of 33,000 and with 720,000 persons on its pay roll at the beginning of 1926, was brought into the foreign shipping trade of the nation by the necessity for transportation for the iron and steel industry and for other products from the interior Rhine region to the coast for overseas shipment. While any action on the part of the Government in lowering rates or of entering into special agreements over specific routes and between certain points was always based upon the necessity to assist German foreign trade, shipping indirectly profited (1) generally by becoming the extension of the delivery system and (2) specifically by contract arrangements between certain regions where steamship rates were higher from German ports than from the competing ports of Antwerp and Rotterdam.

The German railways granted special low rates on almost all exports shipped on through bills of lading, thus assisting materially in the volume of cargo offering at seaboard. In special cases, such as the operations of the German Levant and the German East Africa Lines, these lines became part of a penetration program for German goods to the Levant and East Africa.

In 1890, when the German Levant Line was established, and in 1915, in the case of the German East Africa Line, greatly reduced rates were granted on goods from certain interior points going to the Levant or to East Africa. The rates that applied to the German Levant Line were based upon an arrangement by the steamship company with the German Government for carrying exports to the Levant, including Malta, Alexandria, Piraeus, Smyrna, Bulgaria, Rumania, and all ports on the Black Sea. The reduced rates on

cargo moving over this line were in effect a bounty on exports, inasmuch as the reduced rates stimulated the movement of freight.

By these combined special low rates the railways and the ships were able to draw within their sphere industrial regions that otherwise would ship via Trieste or Italian ports. An instance of the double reduction in rail and ocean rates was: The regular railway rate on a certain commodity in carload lots from Breslau to Hamburg was 3.76 marks (\$0.895) per 100 kilos (220.46 pounds); the ocean rate from Hamburg to Delagoa Bay was 6.40 marks (\$1.52)—a total of 10.16 marks, or \$2.42, under full tariffs. Under the special rate of the German East Africa Line, the through rate from Breslau to Delagoa Bay on the same commodity was only \$1.68. If this same commodity were shipped under the special rates from Lubeck to Delagoa Bay via Hamburg, the through rate was \$1.43 per 100 kilos, or \$0.09 less than the regular steamship tariff alone, thus making of the rail haul a virtual gift so far as the exporter was concerned.

That this arrangement had an important effect not only on commerce but also on shipping may be gleaned from the fact that from 1892 to 1904 the number of steamers required for the Levant service rose from 7 to 30 and the annual number of voyages from 25 to 125. Traffic to Russian Black Sea ports, which has been so small that it had not been separately shown in official statistics, increased from 1890 to 1901 by 621 per cent; to Rumania, by 95 per cent; to Asiatic Turkey, by 1,556 per cent; to Greece, by 307 per cent; to North Africa, by 1,094 per cent. During the same period imports from European Turkey rose 424 per cent; from Asiatic Turkey, 159 per cent; from Greece, 101 per cent; and from North Africa, 2,162 per cent.⁸

So important was this indirect aid to German shipping that according to articles 323 and 325 of the treaty of Versailles Germany undertook to make no discrimination or preference in favor of its own exports, and to admit the seaports of Allied or Associated Powers to all privileges or reduced tariffs on German railways or waterways designed to benefit German ports and German shipping.

VERSAILLES STIPULATIONS

Articles 323 and 325 of the treaty of Versailles read:

ART. 323. Germany undertakes to make no discrimination or preference, direct or indirect, in the duties, charges, and prohibitions relating to importations into or exportations from her territories, or, subject to the special engagements contained in the present treaty, in the charges and conditions of transport of goods or persons entering or leaving her territories, based on the frontier crossed; or on the kind, ownership, or flag of the means of transport (including aircraft) employed; or on the original or immediate place of departure of the vessel, wagon, or aircraft or other means of transport employed, or its ultimate or intermediate destination; or on the route of or places of transshipment on the journey; or on whether any port through which the goods are imported or exported is a German port or a port belonging to any foreign country or on whether the goods are imported or exported by sea, by land, or by air.

Germany particularly undertakes not to establish against the ports and vessels of any of the Allied and Associated Powers any surtax or any direct or indirect bounty for export or import by German ports or vessels, or by those of another power, for example, by means of combined tariffs. She further undertakes that persons or goods passing through a port or using a vessel of any of the Allied and Associated Powers shall not be subjected to any for-

⁸ Dussol: *Les grandes compagnies de navigation*, Paris, 1908, pt. 1.

mality or delay whatever to which such persons or goods would not be subjected if they passed through a German port or a port of any other power or used a German vessel or a vessel of any other power.

ART. 325. The seaports of the Allied and Associated Powers are entitled to all favors and to all reduced tariffs granted on German railways or navigable waterways for the benefit of German ports or of any port of another power.

In accordance with the treaty provisions, the German railways withdrew all exceptional tariffs as and from September 1, 1919. A few years later the system was again adopted, when about 70 so-called Seehafenausnahmetarife were reintroduced as of November 1, 1923.

POSTWAR SPECIAL TARIFFS

During 1928 the German railways again granted special tariffs to facilitate the import and export movement through German seaports. New special tariffs were granted for imports of raw tobacco and copper, and new export rates became effective on paper, cardboard, cellulose, brass, copper, zinc, and salt.

On October 1, 1928, special tariffs similar to those in existence before the war were put into effect granting reductions ranging from 11 to 50 per cent, according to the character of the goods and destination, while for certain stations in the Rhineland situated in the sphere of counterattraction by French and Belgian ports the reduction may be as much as 70 per cent.

The activity of the German railways in the sphere of special tariffs promotes economic activity in Germany and at the same time increases the traffic. As an example, the tonnage transported under special tariffs of all categories rose from 1,475,461 tons for the January-March period, 1927, to 1,722,164 tons for the January-March period, 1928, an increase of 16.7 per cent. This, of course, includes Czechoslovak, Polish, Austrian, and other specials.⁹

CHANGE IN STATUS IN 1930

On March 13, 1930, the Reichstag enacted an amendment to the federal railroad act of August 30, 1924 (Dawes Act), which made possible the enforcement of the Young plan, beginning from May 17, 1930. Under this amendment the German railways were freed from foreign control and assumed the status of a private and independent enterprise under certain supervision by the Government.

The State granted the company the exclusive right to operate the federal railroads which in 1920 had been taken over by the Government, the concession to terminate on December 31, 1964, provided the reparations tax, which the company assumed, has been fully paid, including the installment due January 2, 1964, and provided that all preferred stock has been redeemed by that date.

The only manner in which the Government can influence rates under the new status of the railways is by the provision that the Government may cooperate in drawing up schedules of passenger and freight rates or can call for any changes in the tariffs which it considers necessary.

⁹ Report No. 8 of the commissioner for the German railways, Dec. 2, 1928, p. 69.

GREAT BRITAIN¹

ECONOMIC DEVELOPMENT AND SHIPPING

The component parts of the British Empire are tied together by ships. The component parts of the United States are tied together by railways and highways. Herein lies the essential difference in political importance of commercial shipping in the first two maritime countries.

The United Kingdom produces enough wheat and flour to supply the population for only one out of every five days; ships bring supplies for the other four. The United Kingdom produces enough meat to supply the population for three out of every five days; upon ships depend supplies for the other two. The food supply of the United States is sufficient to support the population; its distribution is an internal problem that is solved by railways and highways. Herein lies the measure of difference in acute economic necessity for assured sea services.

Coal is the only important raw material in which Great Britain is self-supporting. All of the cotton and nine-tenths of the wool, nine-tenths of the timber, and more than one-third of the iron ores used by British industry are imported from overseas. Excepting wool, these basic raw materials for industrial production are native in the United States. Herein lies the essential difference in dependence upon sea services for supplies of the prime raw materials for industrial production.

DEPENDENCE OF GREAT BRITAIN UPON SHIPPING

The following excerpts from the final report of the Balfour Committee on Industry and Trade² give the fundamental principles in respect of the dependence of Great Britain upon shipping:

This basic proposition follows inevitably from the fact that the population of Great Britain is to a large and increasing extent dependent for its food and the materials of its industry on imports from abroad. During the 40 years 1881 to 1921 the population of Great Britain increased by 13,000,000, or about 43 per cent, and during that period the proportion of the occupied population engaged in agriculture fell from over 12 per cent to about 7 per cent. In 1927 the value of our net imports of food and raw materials amounted to nearly £800,000,000 (\$3,893,000,000).³

During the past century there has been a steady growth in our dependence on overseas supplies for the essential means of existence, and there is not the slightest reason to expect that the tendency will be arrested or reversed in the near future. * * *

¹ This discussion of British shipping and shipbuilding covers Great Britain and all of Ireland up to 1922; thereafter it relates to England, Scotland, and Northern Ireland only.

² Report of the Committee on Industry and Trade (Balfour Committee), March, 1929, Command Paper 3282, p. 8.

³ Unless otherwise indicated, the par rate of \$4.8665 has been used in conversions of sterling to dollars.

To an industrial community dependent for the essentials of its material welfare on external exchange, the efficiency and cheapness of transport both sea and by land are vital conditions of prosperity. When that community inhabits an island, so that the whole of the commodities exchanged between and the outside world have to be carried by sea, while in addition coastwise steamers perform to a large extent the transport services rendered in some other countries by river and canal traffic, it is clear that ready and certain means of access to an adequate supply of efficient sea-carrying power on reasonable terms is one of the prime conditions of competitive power. * * It has already been pointed out that this country compares favorably with some of its competitors in the matter of access to shipping. Not only are our ports numerous and well placed in relation to our staple export industries, but our national policy in welcoming all ships alike to our ports without any kind of flag discrimination has the effect of placing at the disposal of British trade not only the tonnage of British ships but the entire ocean-going tonnage of the world. The trades of this country have, in effect, the full benefit of the open freight market of the world, except so far as that market may be affected by the working of what is generally known as the liner-conference system.

CONCENTRATION OF POPULATION NEAR PORTS

It is easier for a transport service to supply the needs of a population concentrated into large groups than to supply the needs of a scattered population. If a nation has a large import and export trade, transport services will be more effective if the population to be served is concentrated in a few seaports, for in this manner imports may easily be distributed to the consumer and exports may readily be placed on board ship at the lowest cost. In Great Britain this situation exists.

In 1913 the 12 principal ports of Great Britain handled 84 per cent of the value of imports and 84 per cent of the value of exports; in 1925, 86 per cent of the imports and 88 per cent of the exports; and in 1929 about the same proportions. The census of 1921 shows that 45 per cent of the population resided in or near these 12 ports. This condition is considered of primary importance to a trading nation dependent for its prosperity upon overseas supplies and export trade.⁴

RELATION OF SHIPPING TO THE STATE

SUBSIDIZED SERVICES

Any reasonable analysis of the relationship between the British Government and British shipping leads but to the inevitable conclusion that neither the inception of the British steam cargo fleet nor its development during the past 75 years nor its present activity was caused by or depends upon public expenditures or upon official preferences.

The registered tonnage of the British merchant marine now exceeds 20,000,000 gross tons. The total public-budget estimates for ocean-mail services by parts of this fleet on a contract basis was £820,000 (approximately \$4,000,000) in 1930-31. The postal-contract services (discussed at p. 216) are based upon scheduled sailings of certain vessels on certain routes; three of these routes, those between the United Kingdom and the United States, to the Far East, and across the English Channel to Europe, absorb £650,000 (\$3,163,000)

⁴ Balfour Report, Further Factors in Industrial and Commercial Efficiency, p. 198-200.

or 80 per cent of the total estimates. These vessels carry all the mails tendered by the British Post Office and without further cost to the post office. Moreover, the trans-Atlantic contracts specifically provide that all mail aboard the vessel, taken on under any agreement which the British Postmaster General may have with the postal authorities of France and the United States, is to be carried without further cost to the post office. The net loss, if any, to the British Post Office is the difference between mail revenue and contract cost. This is offset by guaranteed regularity of sailings by the contract vessels.

If the contract system were withdrawn, the mails would be carried on a weight basis at sailing dates determined by the owners. The net gain to the Government would be relatively small. The net loss to the operator would be small and would probably have little effect on the number of sailings or the speed of the service. At various times during the operation of the mail-contract system since 1837 the British Post Office has reported the net cost of the packet services. The cost has varied; some lines, such as the eastern routes, have caused net losses, while on others at times the receipts for mails have exceeded the contract costs. At all times since the British Post Office assumed responsibility for the service (about 1860) every endeavor has been made to keep the contract cost down to the cost of the service; and when services are demanded which commercial shipping otherwise would not offer the Government pays a contract price estimated to be the cost of the service.

In the colonial system the contract carriers are responsible for space for official travel and limited official cargo. No separate military transport service exists.

No general navigation bounties based upon mileage sailed or cargo carried have at any time been in force in Great Britain during the past century, although other indirect and more effective methods of providing employment for British vessels were in force for part of this period. Navigation and construction bounty practices such as have been in force in France, Spain, or Japan have been unnecessary and have found no place in British shipping development.

By and large, the postal contracts are of as much benefit to the Government as to the shipping industry, since the Government is thereby relieved from expensive transport services in connection with the British naval stations and military establishments in various parts of the world. All official reports and recommendations of the Admiralty and the Treasury, as well as of investigating committees, constantly deal with postal-contract services on the basis of obtaining for the Government the most suitable services at the least cost. Service to the Government, rather than aid to the shipping industry, is the object of the British contract system.

GOVERNMENT GUARANTY OF SHIPBUILDING LOANS

Aside from the postal-contract system, the only other form of Government contact with shipping now in effect (except through navigation laws) is the guaranteeing of loans by the British Government and the Government of Northern Ireland under the trade facilities acts of 1922-1926 and the loans guaranty act of Northern Ireland. (See pp. 256-261.) The objective of these guaranties was to reduce unemployment through stimulation of industries which are

large employers of labor. About one-third of the guaranties under the trade facilities acts and most of the guaranties under the Irish act went to shipbuilding. The two forms of guaranties aggregate £34,888,137 (\$169,783,120) to British and foreign shipowners and shipbuilders.

The ultimate effect of these guaranties is problematical. All interests agree that the acts notably assisted the unemployment situation and aided in the stimulation of certain industries. Through the Chamber of Shipping general-cargo vessel owners condemned the acts on account of their adding tonnage to an already overloaded tonnage market. Liner organizations saw a good opportunity to acquire expensive competitive tonnage at lower interest rates than could be acquired in the open money market. Shipbuilders obviously found nothing but praise for the increased shipbuilding activity.

The principal borrowers under the acts were the liner companies. The Royal Mail Steam Packet Co. and associated companies and subsidiaries obtained about £13,365,000 (\$65,000,000). The average interest rates on the loans are said to be about 5 per cent, giving an advantage of perhaps 2 per cent over the normal average market. On the entire amount of the loans, therefore, owners might benefit by a net reduction in interest charges of approximately \$3,300,000 annually and in the case of Royal Mail interests upward of \$1,300,000 per year. These approximations are, however, impossible of verification without knowledge of the interest rates which prevailed on the greater part of the loans.

SUMMARY OF FUNDAMENTAL CAUSES

The fundamental causes of the development of ocean shipping in Great Britain during the past century may be summarized as follows:

Food imports.—The insular character of Great Britain, dense population, and inadequate domestic production of food supplies require large food imports by sea.

Manufactured exports.—To pay for food imports, equivalent exports of goods or services are essential. Industrial manufactured products form the bulk of exports measured in terms of value. Shipping services add invisible exports. Raw materials for conversion into finished products form additional imports.

Coal.—The cargo flywheel of the ocean carrying trade of Great Britain has been coal. As the prime essential to motive power in the development of steam shipping, coal supplies had to be available. The establishment of British coal stations all over the world and the maintenance of stores provided the bulk of the outward cargoes necessary to balance the excess of import cargoes.

Steam power.—The adoption of steam propulsion insured regularity and dependability in shipping, if not necessarily greater speed during the period of heavy steam-driven wooden hulls.

Steel.—The adoption of steel and iron for shipbuilding enabled builders to produce a larger and lighter hull per given power, thereby increasing carrying capacity at relatively decreased carrying cost. The metal ship is both a cause and an effect of the industrial age; it

made possible the large-scale carrying of raw materials and served to bring together British labor, materials, and markets.

Initiative.—Early adoption of steam power, increase in efficiency of steam plants, and production of cheap steel are essentially British developments applied to ocean shipping. These developments served to check the ascendancy of the wooden wind-driven commercial fleet of the United States.

Colonial communications.—Politically the responsibility for maintenance of communications between Great Britain and the imperial colonies rests with the home country. Practically and in principle such communications are maintained only by sea through ships of British nationality, although at times tenders for services in the colonial system were made by foreign vessels and seriously considered.

SHIPPING'S CONTRIBUTION TO THE INTERNATIONAL BALANCE

In the estimates of the British Board of Trade as to the balance of trade and international payments the national income from shipping services is a prominent item. The basis of this calculation is the gross earnings of British shipping wherever and however made, and these include, besides remuneration for carrying goods and passengers, compensation for many other services performed for shippers by shipowners through their overseas agencies. From such gross earnings there are deducted shipowners' disbursements in overseas ports for wages, fuel, stores, port dues, commissions, etc. To the net earnings thus obtained are added estimates for amounts paid by foreign ships in the United Kingdom ports for bunkers, stores, port dues, etc. The sum so obtained is described as net national income from shipping services in a national sense only and not in the sense of profits to the shipping industry. The relation of these estimates to the excess of imports in the United Kingdom may be stated in the following manner:

TABLE 36.—RELATION BETWEEN BRITISH NET NATIONAL SHIPPING INCOME AND EXCESS OF IMPORTS

Year	Excess of British imports of merchandise and bullion	Estimated net national shipping income ¹	Per cent ²	Year	Excess of British imports of merchandise and bullion	Estimated net national shipping income ¹	Per cent ²
1907.....	£142,000,000	£85,000,000	60.0	1924.....	£324,000,000	£140,000,000	43.0
1910.....	152,000,000	90,000,000	57.0	1925.....	386,000,000	124,000,000	32.0
1913.....	158,000,000	94,000,000	59.0	1926.....	475,000,000	120,000,000	25.0
1920.....	343,000,000	340,000,000	99.0	1927.....	390,000,000	140,000,000	36.0
1921.....	265,003,449	(³)	.....	1928.....	358,000,000	130,000,000	36.0
1922.....	170,000,000	110,000,000	65.0	1929.....	366,000,000	130,000,000	35.5
1923.....	195,000,000	133,000,000	68.0	1930.....	392,000,000	105,000,000	26.5

¹ Includes disbursements by foreign ships in British ports.

² Per cent of excess imports.

³ Data not available.

Source: Board of Trade estimates.

THE BRITISH COMMERCIAL FLEET

The required sea services of the United Kingdom essential to serve an island population of 43,000,000 are those necessary to transport imports which in 1913 were valued at £768,734,739 (\$3,741,047,607),

in 1929 at £1,221,591,062 (\$5,944,872,900), and in 1930 at £1,044,840,194 (\$5,084,714,800), and exports (exclusive of reexports) valued at £525,253,595 (\$2,556,146,600), £729,554,967 (\$3,550,379,200), and £570,552,946 (\$2,776,595,900). For 1930, 70 per cent of the value of the imports represented food and raw materials, and 80 per cent of the value of the exports represented manufactured goods.

The British commercial fleet carried more than 99 per cent of the coasting trade. Before the war British vessels carried 90 per cent of the trade between the United Kingdom and the rest of the Empire.⁵

GROWTH OF THE MERCHANT MARINE

The first steamboat to ply for hire in Great Britain was the *Comet* on the Clyde in 1811. By 1820 the steam fleet comprised 3,018 gross tons; 10 years later the tonnage was 10 times as great; in 1840 it comprised 87,639 gross tons, and by 1849 it had grown to 158,729 gross tons.

The enormous strides made in British steam tonnage and in shipping generally during the period 1850-1870 and the current causes of this development are of importance. In 1849 the Parliament passed the navigation laws repeal bill (12 and 13 Vict., ch. 29) repealing earlier regulations that imposed higher duties on goods when imported in other than British vessels or vessels of the same nationality as the goods they carried.

The navigation acts that were repealed by the navigation laws repeal bill of 1849 were the first comprehensive laws designed to make Great Britain supreme at sea. By these acts British and colonial trade was restricted to British ships or to ships of the same nationality as the origin of the cargo. By this one stroke Great Britain created a virtual monopoly which survived for two centuries.

Discriminatory customs duties on both exports and imports had been in force for some 300 years, since 1349. By the provisions of an act of 1660 a subsidy of a portion of the customs dues on cargoes carried by British vessels was granted, conditioned upon certain armament and type of ship.

The various bounty laws that were passed a century or so later were practically all in favor of fisheries and were based politically upon the training of seamen for a naval reserve, considered an expedient manner in which to obtain seamen.

These three types of government consideration of British shipping had, therefore, prevailed for approximately two centuries before the postal-subsidy system came into effect. Navigation bounties such as those that have prevailed in France, Japan, etc., during modern maritime history have at no time been paid in Great Britain.

PERIOD FROM 1850 TO 1860

In 1850 vessels entering and clearing ports of the United Kingdom with cargoes and in ballast had an aggregate tonnage of 14,505,064; in 1860 this total had risen to 24,689,292 tons, an increase of 70 per

⁵ Chamber of Shipping of the United Kingdom, Annual Report for 1930-31, p. 215.

cent. The inference that the abolition of the old navigation acts caused the large increase in water-borne trade is tempered by the fact that total entrances and clearances increased nearly 10 per cent between 1820 and 1830; nearly 63 per cent between 1830 and 1840; nearly 54 per cent between 1840 and 1850. In 1849 there was no scarcity of tonnage nor any immediate prospect of a shortage.

Free movement of tonnage in trade with Great Britain greatly stimulated the general movement. Of 14 nationalities only 4 failed to double their entrances and clearances during the decade 1850-1860. The largest absolute increase in tonnage was that of United States vessels, from 1,215,225 tons in 1850 to 2,834,021 tons in 1860—an increase of 133 per cent, and 1,000,000 tons more than the gain in the second ranking tonnage, that of Norway.⁶ Norwegian tonnage entering and clearing British ports rose from 331,664 tons in 1850 to 948,212 tons in 1860, or 191 per cent. The British fleet rose in total tonnage entrances and clearances, but declined in relative position from 66 per cent of the entrances in 1850 to 56 per cent in 1860, and from 63 per cent of the clearances in 1850 to 56 per cent in 1860.

Increase in size of vessels, economy in manning requirements in their operation, faster speed and larger carrying capacity, and especially the great strides made in the development of steam tonnage were factors in cheapening freights, with advantages to both the shipowner and the shipper. The extension of steam tonnage into the foreign trade during this period was remarkable. In 1850 there were 86 steamers of British registry engaged in British foreign trade, and 447 in 1860. Steam tonnage increased from 45,186 tons to 277,437. During this decade the application of steam first began to reveal the element of regularity in sea-borne traffic.

PERIOD FROM 1860 TO 1870

The period 1860-1870 reversed the position of the British and American fleets in British foreign trade. While the sudden reduction in United States tonnage in this trade had its immediate cause in the events of the Civil War, the cause of its failure of subsequent recovery lay in the economic realm of reduction of value of wooden sailing vessels, in rapidly changing industrial conditions, and in the new fields offered American capital and labor in connection with the interior development of the United States.

Issuance of letters of marque by the Southern Confederacy carried hostilities to sea, with the result that a large number of American vessels were sold, chiefly to British purchasers. The effect of this was a reduction of entrances and clearances of vessels of United States registry in the British trade by 1870 to 1,134,215 tons—a loss of about 1,600,000 tons, or almost exactly the same as the gain during the period 1850-1860. The British commercial fleet in the direct trade between the United States and Great Britain doubled, between 1860 and 1866 (from 945,668 tons to 1,853,145 tons) and con-

⁶ Except for a few steam vessels built for mail service, the foreign-going fleet of the United States during this period made its large gains in British trade through its wooden sailing fleet of native materials and production, which reached its highest development in the clipper ship.

tinued to gain afterwards. The great bulk of the trade lost by the United States fleet was gained by the British fleet. Prior to 1860, in the India and China trades as well as in the direct trade with Great Britain the American fleet had been gaining. The sudden shift in tonnage gave the British fleet a great impetus—a result which did not appear likely in 1860.

RISE OF THE METAL SHIP

During the period 1860–1870 the first effects of metal ships began to be observed. Development of the metal ship and steam propulsion were to British supremacy what the equally high development of the wooden sailing vessel had been to the United States. Iron ships were built before 1860, but they were rare; after 1860 they became common. Their greater strength, durability, and capacity became so apparent that by 1870 the production of wooden vessels in Great Britain had almost ceased. The change from wood to iron was accelerated by the use of steam propulsion; and, while in 1860 steam propulsion was used chiefly in mail ships, improvements in machinery and in steaming efficiency increased the field in which steamers could be used for carrying bulky raw materials such as coal and grain. The steamer fleet of Great Britain grew from 454,327 tons in 1860 to 1,112,934 tons in 1870.

For timber with which to build wooden vessels British builders had to turn to Canada, Georgia, Burma, and Oregon; for cordage for rigging they sought materials in the Philippines and on the Malabar coast; imported materials made expensive ships. Iron ships could be built from native ores and native coal, and skilled British labor was available. As soon as steamers were so improved that they could carry common cargoes cheaply the disadvantage under which the British wooden sailing fleet had been laboring was removed. Other nations might produce wooden ships more cheaply, but none could produce an iron steamer at lower cost.

The results of all these happenings are apparent in the statement that in 1848 (the year before the repeal of the navigation acts) the foreign tonnage entering and clearing British ports was 28.8 per cent of the total, against the British proportion of 71.2 per cent; in 1860 foreign tonnage had increased to 41.8 per cent and British tonnage decreased to 58.2 per cent; in 1870 foreign tonnage had decreased to 29.82 per cent and British tonnage had risen to 70.18 per cent.

British steam tonnage advanced from 2,723,468 net tons in 1880 to 5,042,517 net tons in 1890, 11,513,759 gross tons in 1900, and 16,767,683 gross tons in 1910.

PRESENT-DAY BRITISH FLEET

Great Britain's postwar commercial fleet (power-driven and sail, of 100 gross tons and upwards) is thus recorded in Lloyd's Register of Shipping:

TABLE 37.—GROWTH OF THE BRITISH COMMERCIAL FLEET

July 1—	Total fleet †	Power-driven vessels †	Sailing vessels †	July 1—	Total fleet †	Power-driven vessels †	Sailing vessels †
	<i>Gross tons</i>	<i>Gross tons</i>	<i>Gross tons</i>		<i>Gross tons</i>	<i>Gross tons</i>	<i>Gross tons</i>
1913.....	18,096,237	18,273,944	422,293	1924.....	19,105,838	18,954,158	151,680
1914.....	19,256,766	18,892,069	364,677	1925.....	19,440,711	19,304,670	136,041
1915.....	19,541,368	19,235,705	305,663	1926.....	19,399,797	19,263,785	136,012
1916.....	19,134,857	18,825,356	309,501	1927.....	19,309,022	19,179,029	129,993
1919.....	16,355,471	16,344,843	210,628	1928.....	19,875,350	19,754,001	121,349
1920.....	18,330,424	18,110,653	219,771	1929.....	20,166,331	20,046,270	120,061
1921.....	19,571,554	19,320,053	251,501	1930.....	20,438,444	20,321,920	116,524
1922.....	19,295,637	19,068,638	206,999	1931.....	20,302,905	20,193,677	109,228
1923.....	19,281,549	19,115,178	166,371				

† Vessels of 100 gross tons and upward

Source: Lloyd's Register of Shipping.

No tonnage figures are available for 1917 and 1918.

Fairplay's annual summary of British shipping finance for 1930 states that 6,315,412 gross tons of tonnage owned by the principal liner and cargo-liner companies were carried on the books of the owners in 1929 at £147,945,940 (\$719,978,900) and that 2,070,359 gross tons of cargo tonnage were carried on the books of the principal cargo-boat companies at £29,226,189 (\$142,229,250). This accounts for 8,385,771 tons of British seagoing tonnage valued at more than \$862,000,000.

EMPLOYMENT OF THE FLEET

Based on the total net tonnage of vessels entered and cleared between Great Britain and Ireland and British possessions in 1930, the net tonnage of British vessels represented 94 per cent of the entrances and 95 per cent of the clearances; in the trade with foreign countries British net tonnage was 55 per cent of the entrances and 56 per cent of the clearances; and in the total trade with both British possessions and foreign countries the net tonnage of British vessels was 64 per cent of the entrances and 65 per cent of the clearances in 1930. British ships before the war carried approximately one-half of the entire sea-borne commerce of the world.⁷ Considering ships to be the means by which three-fourths of the commodities exchanged between the individual citizens of the different nations are carried, the relative importance of the British commercial fleet in international trade is thereby established.⁸

The position of the British commercial fleet in the trade between the United Kingdom and foreign countries and British possessions, including only vessels entering and clearing with cargoes, is developed in Tables 38 and 39.

⁷ Chamber of Shipping of the United Kingdom and Liverpool Steamship Owners' Association: Report of committee appointed to advise as to the measures for the maintenance of the British Mercantile Marine, vol. 1, p. 14.

⁸ *Idem*, p. 1.

TABLE 38.—TONNAGE OF VESSELS WITH CARGOES ONLY ENTERED AND CLEARED AT PORTS OF THE UNITED KINGDOM IN THE FOREIGN TRADE, 1850-1900

Year	Steam and sailing vessels with cargoes only				Steam vessels with cargoes only			
	Total British and foreign	British vessels	United States vessels	Per cent British	Total British and foreign	British vessels	United States vessels	Per cent British
1850.....	<i>Gross tons</i> 12,020,674	<i>Gross tons</i> 8,039,308	<i>Gross tons</i> 1,215,225	66.8	<i>Gross tons</i> (1)	<i>Gross tons</i> (1)	<i>Gross tons</i> (1)	(1)
1860.....	20,837,918	12,119,454	2,734,381	58.1	4,705,016	3,976,852	8,909	84.5
1870.....	31,624,680	22,243,039	1,134,215	70.3	13,376,642	11,825,002	4,852	88.4
1880.....	49,678,950	35,885,868	882,277	72.2	32,124,056	27,052,131	139,070	84.2
1890.....	62,836,075	46,406,250	272,735	73.85	52,455,760	42,127,266	108,558	80.31
1900.....	79,858,144	52,332,155	548,186	65.53	73,282,900	50,226,821	531,394	68.54

¹ Data not available.

TABLE 39.—TONNAGE OF VESSELS WITH CARGOES ONLY ENTERED AND CLEARED AT PORTS OF THE UNITED KINGDOM IN THE FOREIGN TRADE, 1913-1929

Year	Power-driven and sailing vessels with cargoes only				Power-driven vessels with cargoes only			
	Total British and foreign	British vessels	Foreign vessels	Per cent British	Total British and foreign	British vessels	Foreign vessels	Per cent British
1913....	<i>Gross tons</i> 114,882,934	<i>Gross tons</i> 72,393,575	<i>Gross tons</i> 44,489,359	60.9	<i>Gross tons</i> 114,539,765	<i>Gross tons</i> 71,931,608	<i>Gross tons</i> 42,608,157	62.8
1914....	99,029,352	61,444,707	37,584,645	62.0	97,249,048	61,107,049	36,142,899	62.8
1915....	73,253,266	43,242,268	30,010,998	59.0	71,259,189	42,890,907	28,368,282	60.1
1916....	65,655,442	37,969,287	27,686,155	57.8	63,694,601	37,588,643	26,105,958	59.0
1917....	49,304,370	35,721,707	13,682,663	72.4	48,442,892	35,643,102	12,799,790	73.5
1918....	45,970,995	34,785,211	11,185,784	75.6	45,820,346	34,477,051	11,343,295	75.2
1919....	64,132,797	44,042,507	20,090,290	68.6	62,935,989	43,618,823	19,317,166	69.3
1920....	73,218,854	49,039,468	24,179,396	66.9	71,936,038	48,549,845	23,386,193	67.4
1921....	73,520,775	49,406,203	24,114,572	67.2	72,897,940	49,244,886	23,653,054	67.5
1922....	103,076,725	65,291,376	37,785,349	63.3	102,574,383	65,162,982	37,411,401	63.5
1923....	121,783,017	75,218,575	46,564,442	61.7	121,196,727	75,044,617	46,152,110	61.9
1924....	120,668,499	78,588,218	42,080,281	65.0	120,091,636	78,418,828	41,672,808	65.2
1925....	117,823,822	79,381,002	38,442,820	67.3	117,281,324	79,201,919	38,079,405	67.5
1926....	111,142,396	77,390,123	33,742,263	69.0	110,760,477	77,242,620	33,517,857	69.7
1927....	124,069,914	82,785,214	41,304,700	66.7	123,629,514	82,651,397	40,978,117	66.8
1928....	124,730,806	83,592,894	41,187,912	66.0	124,425,038	83,492,922	40,932,116	67.1
1929....	131,381,044	86,085,172	45,295,872	65.5	130,978,312	85,975,235	45,003,077	65.6

Sources: Statistical Abstract for United Kingdom from 1913 to 1927, Seventy-second number. The Navigation and Shipping of the United Kingdom, 1929.

The disastrous effects of the World War upon British coastal shipping and the subsequent gradual recovery therefrom, as well as the relation between British shipping and foreign shipping in this trade, may be seen in the following table:

TABLE 40.—TONNAGE OF VESSELS WITH CARGOES (ARRIVALS AND DEPARTURES) IN THE GENERAL COASTING TRADE OF THE UNITED KINGDOM, 1913-1930¹

Year	Total British and foreign	British vessels	Foreign vessels	Per cent British
	<i>Net tons</i>	<i>Net tons</i>	<i>Net tons</i>	
1913.....	45,066,000	44,497,000	569,000	98.7
1918.....	14,380,000	14,291,000	89,000	99.4
1919.....	20,267,000	20,009,000	258,000	98.7
1920.....	25,820,000	25,287,000	533,000	97.9
1921.....	21,073,000	20,825,000	248,000	98.8
1922.....	28,091,000	27,865,000	226,000	99.2
1923.....	29,494,000	29,097,000	397,000	98.7
1924.....	31,234,000	30,838,000	396,000	98.7
1925.....	31,290,000	31,083,000	207,000	99.3
1926.....	24,796,000	24,620,000	176,000	99.3
1927.....	34,547,000	34,340,000	207,000	99.4
1928.....	35,861,000	35,662,000	199,000	99.4
1929.....	37,025,000	36,751,000	274,000	99.3
1930.....	36,878,000	36,491,000	387,000	98.9

¹ Prior to April, 1923, includes the coasting trade of the Irish Free State and the movement of shipping between ports of Northern Ireland and the Irish Free State; thereafter excludes intercourse with the Irish Free State.

Source: British Official Trade and Navigation Returns.

DEVELOPMENT OF BRITISH SEAGOING PERSONNEL

The early consideration and adoption of the monopolistic navigation acts by Great Britain were due as much to the political desire to use the merchant marine as a school for future naval personnel as to economic reasons. During the seventeenth century all vessels still were potential war vessels, carried armaments, and were at all times liable to be drawn into military campaigns or individual encounters, depending upon political events or upon conditions in the trades in which they were operated. It was therefore a matter of deep concern to the naval establishment that this potential navy be manned so far as possible by nationals in order that the authority, discipline, and experience thus acquired might be more effective in emergencies.

The first steam vessels were almost exclusively experimental warships; and while they naturally classed themselves apart from the commercial sphere, they brought their own problems in the matter of securing trained engineers. The demand for engineers soon became greater than the supply, and the contemporary records are full of controversies between commercial and naval establishments in their rivalry for experienced engineers for sea service. One factor which influenced the determination of the carriage of the mails in Government warships of both Great Britain and France was the early monopoly of seagoing engineers by the navies.

As a result of these considerations the development of the seagoing personnel has been closely observed along with the development of the British commercial fleet. The increase of the British power-driven commercial fleet and the decrease of the British sailing fleet have brought about increased employment of foreigners and lascars. This may be observed in the following table:

TABLE 41.—PERSONNEL OF BRITISH COMMERCIAL FLEET, 1850—1929

Year	Total personnel employed ¹	Sailing vessels, total personnel	Power-driven vessels			
			British	Foreign	Lascars	Total personnel
1850.....	152,611	144,165				8,448
1860.....	171,592	145,487				26,106
1870.....	195,962	147,207				48,755
1880.....	192,972	108,668				84,305
1890.....	236,103	84,213				151,894
1900.....	247,448	50,309	134,163	27,007	35,969	197,130
1913.....	256,260	11,544	167,949	29,919	46,848	244,719
1920.....	245,168	4,942	175,239	14,760	50,227	240,226
1925.....	237,232	2,034	168,360	11,969	54,969	235,196
1929 ¹	236,482	314	160,018	19,947	56,203	236,168

¹ Aboard vessels of 100 gross tons and over.

Source: Statistical Abstract for the United Kingdom.

INFLUENCE OF ADMIRALTY CONTRACTS

The effectiveness of Admiralty subventions and Naval Reserve personnel in the development of British commercial shipping has been unduly stressed. Effectiveness in particular and spectacular instances has, in some quarters, been given the weight of a general national policy. There is no doubt as to the influence of the Admiralty subvention in the creation of the *Lusitania* and the *Mauretania*; but this instance affected only one company and two ships. The general relationship of the Admiralty to commercial shipping can be summed up thus:

During the first 25 years of steamship development the British Admiralty performed mail and passenger services, concluded mail contracts with privately owned shipping, and specified equipment. During at least one-half of this period, however, British shipbuilders and marine engineers dealt with a rapid competitive development in the industry, wherein private capital entered freely.

During the last quarter of the nineteenth century the Admiralty subsidized certain vessels which were under contract with the British Post Office to the extent of paying for extra equipment such as protected steering gears and engine rooms and stiffening for gun platforms. These subsidies were given to only a few selected vessels and were aimed to cover only the extra cost of features that had no commercial value to the owner of the ship. The amounts were too small to have any effect upon the revenues of the vessels concerned.

THE AMERICAN LINE CONTRACT

A typical example of an Admiralty contract during this period is that of July 9, 1888, between the Admiralty and the American-controlled Inman and International Steamship Cos., which subsequently became the American Line. This contract had nothing to do with mail service, but was in effect an option for the purchase or charter of certain vessels owned by the company "from time to time or at any time."

The contract covered the *City of Paris* at £330,000 (\$1,605,950), *City of New York* at £330,000 (\$1,605,950), *City of Berlin* at £180,000

(\$875,970), and *City of Chicago* at £116,000 (\$564,515). The company agreed not to offer these vessels for sale without notice to the Admiralty to exercise its option of purchase; the price to be paid by the Admiralty to be the value on the day of purchase, plus a sum equal to 10 per cent, the "value on the day of purchase" to be as above stated less a depreciation of 6 per cent annually on such value, subject to certain time limitations and to alterations in case of additional expenditures on the vessels.

Under its option to charter the vessels the Admiralty might at any time hire the *City of Paris* and the *City of New York* for 20s. (\$4.87) per gross ton per month if the Admiralty provided the crew, or 22s. 6d. (\$5.48) per gross ton if the company provided the crew. For the *City of Berlin* and *City of Chicago* the charter hire was 15s. (\$3.65) per gross ton per month if the Admiralty provided the crew and 20s. (\$4.87) per gross ton per month if the company provided the crew.

The company agreed to afford the Admiralty facilities for installing on board the vessels such permanent fittings and arrangements for armaments as would enable them to be prepared for sea within a week of arrival or discharge of cargo at Liverpool, the Admiralty to provide the racers and other fittings and gun mountings, the company to maintain the fittings and to store them in its Liverpool storehouse. The company agreed to employ crews composed, to the extent of at least one-half, of men belonging to the Royal Naval Reserve.

In consideration of these privileges and the maintenance of the vessels in seaworthy condition the Admiralty agreed to pay an annual subsidy of 20s. (\$4.87) per gross register ton, subject to a reduction of 25 per cent during any period in which the vessels were operating under British mail contracts.

THE CUNARD CONTRACT

From 1903 to 1928 the Cunard contract with the Admiralty called for an annual subvention of £150,000 (\$729,975) for the *Lusitania* and the *Mauretania*. This subvention was effective in producing the two fastest commercial ships in the world and in aiding in their maintenance and commercial operation. The investigation of the required subsidies to make this possible and the exacting requirements of speed in these vessels, at the special insistence of the Admiralty, have been widely quoted and used in dealing with the problem of large and fast vessels.

At about the same time the Admiralty disclaimed any further interest in vessels of less than 22 knots speed as potential auxiliary cruisers, thereby limiting its interest to only a few ocean-going vessels under British registry. Despite the Admiralty subventions granted the *Lusitania* and the *Mauretania*, they were considered too large for cruiser service in the operations of the World War. The *Aquitania* was used as an armed cruiser only a few weeks, when it was found that the size of the vessel and the expense of its operation were incompatible with the conditions imposed by the war.

PERSONNEL RESULTS

It undoubtedly is true that the officering and part manning of the fast liners with Naval Reservists provide a most suitable training

ground for potential naval personnel, which, in case of requisition, will aid materially in minimizing confusion in any change of the vessels from commercial to military status. But in so far as this personnel normally follows the sea professionally in a competitive way, its Naval Reserve status will not necessarily reduce personnel cost to the shipowner nor make commercial operation more effective.

Accordingly it may be asserted that in the relationship which has existed between the Admiralty and commercial shipping no general increase in effectiveness of commercial shipping has resulted except in certain mail ships, while commercial shipping has provided a training ground for potential naval personnel, the value of which probably outweighs the cost to the Admiralty.

THE WAR AND THE MERCHANT MARINE

Prior to the World War British economic discussion revolved principally around the dependence of the United Kingdom on overseas supplies of food and the probable results of that dependence in time of war. What was then a matter of speculation has now become history.⁹

In 1914 British commercial shipping was generally considered as having reached its preeminent position through private initiative and enterprise coupled with natural economic forces. During the period of the World War British and world shipping gradually came under centralized Government control. This centralized control dealt in terms of ownership or direction of shipping, or both. In the process the British Government acquired nearly 3,500,000 gross tons of shipping, not counting the fleets acquired by other parts of the Empire, such as those of the Canadian and Australian Governments. Following the war this control was gradually relaxed and the greater part of government-owned tonnage was again released into channels of private enterprise.

Owing to the important part played by British shipping during the World War, some of the principal developments will be discussed in the following pages. Most of the material is based upon two volumes of the Economic and Social History of the World War, British Series, Carnegie Endowment for International Peace; these are Allied Shipping Control, by J. A. Salter, K. C. B., chairman of the Allied Maritime Transport Executive, and The War and the Shipping Industry, by C. E. Fayle. The first deals with the position of the British Government during the war period; the second is principally concerned with the shipping industry as such.

IMPORTANCE OF SHIPPING IN THE WAR

If an adequate history of the war is ever written it will probably give as much space to the economic as to the purely military struggle. It was as much a war of competing blockades, the surface and the submarine, as of competing armies. Behind these two blockades the economic systems of the two opposing groups of countries were engaged in a deadly struggle for existence, and at several periods of the war the pressure of starvation seemed likely to achieve an issue beyond the settlement of either the entrenched armies or the immobilized navies. The conditions of the struggle were, however, very different on the two sides.

⁹ Palgrave's Dictionary of Political Economy.

The Central Powers from the first days of the war were cut off from all overseas imports except for casual cargoes slipping through the blockade or goods from contiguous neutrals. They had no shipping problems, for they had no shipping opportunities. Their mercantile marines were from the outset penned in their harbors or confined to the immediately adjacent waters. Germany's economic problem resulted not from the insufficiency but from the cessation of overseas imports, and was throughout a problem not of transport but of internal production and of the distribution of increasingly inadequate supplies. * * *

The Allied Powers on the other hand held the seas throughout the war and had the world to draw from, on two main conditions; one was that they could find the money to buy, the other that they could find the ships to carry. The first of these was the more important factor until the intensive submarine campaign ranged America with her wealth on the side of the Allies in the spring of 1917; the second was the dominant consideration thereafter till the end of the war.³⁰

Whatever had been the cause of the development of the British mercantile fleet, the effect was that upon Britain's entry into the World War British shipping became the key industry upon which all British industrial and military activity depended. Shipping immediately found itself on the firing line; the very nature of its service drew enemy fire. While all British industrial regions were out of range, except for possible air raids, the shipping industry became the objective of both offensive and defensive warfare; it became the register of the extent of upheaval caused by the war.

Upon entry into the war it was found, through investigation and by experience, that only about 4,000 steamers out of 8,500 steamers of 100 gross tons and upwards under British registry, or less than one-half of the total number, were suitable for classification as a pool on which the Allies could draw for all purposes, military and commercial. The available seagoing fleet worked out to an average size of something like 2,100 gross tons per ship. Two hundred and fifty ships were immediately required for the British expeditionary force alone. This number was increased until more than 1,000 ships were employed for the naval and military establishment, aggregating some 6,000,000 tons.

REQUISITIONING OF MERCHANT SHIPS

During August, 1914, the Royal Mail Steam Packet Co. had 10 out of 48 vessels of 12 knots speed and upwards requisitioned. Six out of 13 Cunard ships, due to sail during the first 30 days of the war, were withdrawn to act as cruisers and transports, and every ship of the Canadian Pacific Railway Co.'s trans-Pacific service was requisitioned.

Upon the outbreak of the war the Cunard Co. owned 16 liners of 8,000 tons and upwards which were employed in the Atlantic service and 9 vessels of smaller tonnage in the Mediterranean. During the war the Cunard Co. purchased 9 additional vessels but lost 22, leaving the company with 12 ships, only 6 of which exceeded 8,000 tons. Prior to the World War the Elder-Dempster Line had 101 steamers, of which the company lost 36.

By the spring of 1915 one-half of the tonnage owned by the Royal Mail Co. was in the Government service, as well as 42 out of 60 Peninsular & Oriental steamers. Forty-three out of the 73 liners

³⁰ Salter, J. A.: Allied Shipping Control, pp. 1-2.

employed in the North Atlantic trade by members of the Liverpool Steamship Owners' Association were under requisition by October, 1915. By the end of 1915 6,000,000 gross tons were in direct naval and military service.

By 1916, 3,572 ships remained under the British flag in overseas trade; 1,313, or 37 per cent, were under Government requisition; 680, or 19 per cent, were "directed" by the shipping control; 1,579, or 44 per cent, so-called "free" ships were permitted to trade only under the license of the shipping control. The entire British fleet therefore was, in effect, under the supervision of centralized control. The entire cold-storage capacity of ships in the River Plate and Australian trades had been let to the British Board of Trade for the entire period of the war. Thus, the board had a voice in the management of the vessels.

In addition to managing and directing 197 of its own vessels, which made 503 voyages under liner-requisition regulations, the Cunard Co. handled 1,587 vessels on 1,737 voyages for the wheat executive, collier sections, and other authorities. The Elder-Dempster Co. took over the management of 400 ships for the Government. Furness, Withy & Co. managed 470 neutral steamers for the Government. All tonnage chartered for Belgian relief was arranged by British brokers, who presented their commissions and brokerage fees to the commission. Underwriters quoted extra low rates on these ships.

LEGALITY OF LINER-REQUISITION SCHEME

The China Mutual Steam Navigation Co. was the only liner company that did not agree to the requisition regulations laid down in agreement between centralized control and the owners. The company instituted suit against the controller for the purpose of testing the validity of the liner-requisition scheme. The court decided all points in favor of the plaintiff and held that the controller had no power to requisition owners' services; that the terms of the requisition letter purported to do so; that the requisition of the ships was done in the light of the document as a whole, and that all proceedings under it were null and void.

Having obtained this decision against the authority of the Ministry of Shipping, the shipowners did not press their advantage, but on the basis of common defense voluntarily continued the services on the part of both the organization and ships.

FABRICATED SHIPS

The question of submarine losses having become serious, the controller laid plans for a fabricated ship similar in principle to the fabrication program laid down in the United States. In 1917 this construction program was to include approximately 1,600,000 tons and in 1918 2,300,000 tons. Due to labor trouble as well as to a difference of opinion as to the value of the standardized ship, the program was not fully carried into effect. Thus, the entire production for 1917, including standard ships, amounted to only 1,163,000 tons, and for 1918 to only 1,600,000 tons. Of 2,750,000 tons completed during these two years, 804,000 tons were of standardized construction.

The total war losses of British shipping amounted to 7,759,000 gross tons, or 38 per cent of the tonnage under the British flag in June, 1914. In all, 8,500,000 tons were destroyed, captured, or wrecked. Less than one-half was replaced by new construction in British yards. Of ocean-going ships Great Britain lost some 25 per cent.

LIQUIDATION OF GOVERNMENT FLEET

At the close of the war the British Government promptly sold its holdings in ships. During the period January, 1919, to January, 1922, Government tonnage was sold and allocated in two broad groups—198 cargo vessels of about 1,400,572 dead-weight tons for a round sum of about £35,000,000 by the Controller of Shipping, and ex-enemy vessels, including 94 passenger steamers, sailing vessels, and trawlers of 606,666 gross tons and 324 cargo steamers of 1,923,350 dead-weight tons, for £20,076,216 by the Reparations Commission.¹¹

SALE OF BRITISH VESSELS

The sale of the first group was conducted by Lord Inchcape, head of the Peninsular & Oriental Co., in conjunction with Sir Owen Philipps, head of the Royal Mail Steam Packet Co., and in agreement with the Controller of Shipping. In the sale of ex-enemy tonnage Lord Inchcape acted on behalf of the Reparations Commission. The original announcement by Lord Inchcape and his associates, January 16, 1919, stated that they had taken over the cargo ships then under construction at cost of construction; that British owners who were interested might purchase these vessels at the cost of the contract and without profit or fees to the vendors; that the vendors retained sole discretion as to allocation of the available tonnage to British owners in approximate proportion to the losses sustained by them during the war; that no preferences were to be given the companies with which Lord Inchcape was associated; that any losses resulting from the sales were to be borne by Lord Inchcape and his associates; and that any profits were to be proportionally prorated among the purchasers.

The original announcement offered 137 vessels for sale. On July 18, 1919,¹² Lord Inchcape announced that 156 cargo steamers of 1,056,821 dead-weight tons had been allocated to various British owners, the contracts on which totaled £23,887,400 (\$105,720,650 at exchange of \$4.4258, the average for the year), or about \$100 per dead-weight ton. At the same time he offered 40 cargo steamers of 343,751 dead-weight tons which had been in service. On August 29, 1919, the London Times reported that the last group had been disposed of. The Times of July 1, 1920, stated that the 198 steamers had been distributed at an expense of £850 (about \$3,800 at 1919 exchange).

The Government-owned cargo tonnage had been offered the British market by the British Government a few weeks before the end of the war, but due to the unsettled conditions there were no buyers.

¹¹ London Times, July 1, 1930, and Feb. 23, 1922.

¹² London Times, July 19, 1919.

The lead taken by the Inchcape management by acquiring all the Government tonnage had the effect of further stimulating purchases at a time when shipping tonnage prices were abnormally high.

SALE OF EX-ENEMY VESSELS

The success of the Inchcape sale led to an invitation by the Reparations Commission to dispose of the ex-enemy tonnage held by it. These sales ran from September 7, 1920, to January 5, 1922. Only one attempt was made to repudiate a sales contract, and then the Inchcape management was sustained in the courts. In another instance, where a vessel could not be delivered in contract time because of a strike, the purchaser offered to forfeit a deposit of £17,300 if the sale were canceled. His offer was accepted and the vessel was resold for a lower price. Nine small vessels of 23,914 gross tons and from 10 to 27 years old were sold to German purchasers for about £10 (less than \$45 then) per gross ton.

One hundred and ninety-four ex-enemy vessels were sold by the Inchcape management direct to purchasers, without brokerage or intermediaries, for £13,382,496 (\$59,273,750 at exchange of \$4.4292, the average for 1922, but rates averaged lower than this in 1921 and 1920). On deferred payments in the sale of ex-enemy tonnage one-half of the purchase price was paid upon signing the contract and upon delivery of ship. The remainder, covered by mortgages, was to be paid in installments of 10 per cent at the termination of each of five succeeding periods of six months. Outstanding payments were to bear bank rates of interest with a minimum of 5 per cent. Both mortgages and bank guaranties were accepted. Only 19 vessels were sold under the mortgage plan, the remainder being covered by bank guaranties.

As previously said, Inchcape sold, in all, 418 ex-enemy ships—94 passenger ships of 606,666 gross tons and 324 cargo ships of 1,923,350 dead-weight tons—realizing £20,076,216, or more than \$97,000,000.

The cost of disposing of the ex-enemy vessels included an out-of-pocket expense of £19,338 covering items of advertising, technical staff, auction fees, Lloyd's surveys, printing and stationery, telegrams, postage, and legal expenses, and an Inchcape management expense of £8,095 covering staff expenses in selling the vessels, agreeing to claims for bottom damage, transfer of vessels, and receiving money and paying it over to the Government. The management expense was equivalent to 9½d. per £100 on the total receipts from ex-enemy sales. Both expense items work out to 2s. 7¾d. per £100.

FACTORS AFFECTING SALES

In considering the Inchcape sales some of the factors that contributed to the high tonnage market in the United Kingdom are of special interest:

1. In the first place the great bulk of British tonnage was still under Government requisition and direction. This placed the Government in a good position in respect of releasing or withholding tonnage that might affect the sales market.

2. Consideration must be given to employment and to the general displacement of transport, and the redirection from short to long

routes of shipping. Thus, for example, since Germany and Russia were out of the commercial scheme, sugar that previously had been imported from Germany, grain from the Black Sea, and timber and dairy products from the White Sea and Baltic districts had to be carried from the long overseas routes, with a consequent increase of the number of ships for given services.

3. The general congestion of all ports, conditions of railway equipment, shortened hours of labor, and labor inefficiency, together with the general coastwise situation, contributed to the slowing up of carrying power.

The coastwise situation is significant, since during the war the railways had undercut the coastwise rates to a point where it was practically impossible for the coastal fleet to compete. On all import and export cargoes shipped coastwise the Government subsidized the trade to the extent of absorbing the difference between the railroad rates and the cost of operation of coastwise steamers. This subsidy in turn stimulated the tonnage market to the extent of enabling vessels again to enter the coastwise trade.

Further limitation on bunker and coal-export schedules created an element of loss of time that resulted in bunkering in foreign ports for round voyages, creating a general reduction in efficiency and carrying power of the tonnage.

THE TONNAGE MARKET

The British Chamber of Shipping estimated that as the net result of all these factors the carrying power of the British fleet was reduced by 30 to 40 per cent, contributing to the stimulation of the tonnage market at the time when Lord Inchcape was carrying on the sales campaign. Furthermore, a month after the second Inchcape deal was made in April, 1919, the Chancellor of the Exchequer announced the reduction of excess-profits tax from 80 per cent to 40 per cent, which created a rush of speculative buying in ships. A year later the excess-profits tax was raised to 60 per cent plus an extra 5 per cent. In the meantime the tonnage market had reached unheard of heights.

The change in tonnage as a result of the war and the potential market for the disposal of Government-owned tonnage in Great Britain during the period 1919-1922 is brought out in the following figures covering ships of 1,600 gross tons and above:

Tonnage deduction, all causes.....	gross tons..	9,451,975
Tonnage addition, all sources.....	do.....	6,341,825
Tonnage net loss.....	do.....	3,110,150
New construction for sale.....	dead-weight tons..	1,400,000

The net loss in British overseas tonnage was approximately 3,000,000 gross tons, or two and one-half times the new dead-weight tonnage available for sale under the Inchcape program. The loss represented tonnage which previously had been employed in British trade on British trade routes.

GOVERNMENT CONTROL OF MEAT TRANSPORT

Another instance of Government control is provided by the arrangements made for handling the Australian and River Plate meat supply

during the period of the war. To insure supplies to the British and French Armies the British Board of Trade contracted for the entire meat output of Australia and New Zealand as well as for the greater part of the Argentine supply, thus creating a monopoly of the Australian and New Zealand product. In the River Plate the Board of Trade contracted for the entire cold-storage space on British ships trading to that section, thus acquiring a monopoly on ship space. In April, 1915, by order in council, all cold-storage capacity in British ships usually engaged in Australian, New Zealand, and South American services was requisitioned for the carriage of refrigerated products.

The freight rate per ton of 40 cubic feet of refrigerated space ranged from 50 to 60 shillings for the period of the war, an advance of about one-half on the freights for July, 1914. When more space was available than was needed for Government transport, the Board of Trade resold the space at market rates.

The cold-storage space agreement with owners expired in March, 1920. The Board of Trade extended the agreement until November, 1920, for the benefit of the Australian Government in order to relieve that administration of a large accumulation of meat. The lines agreed to supply the Government with all the cold-storage space needed until April 30, 1921. The Government, through the board, in return agreed to increase the rate from 132 to 144 shillings per ton to cover increased cost of coal.

The Government's meat contract in the River Plate expired on the last day of 1919. If the requisition were to be lifted this would expose steamship owners to pre-war rates and post-war expenses. The Board of Trade accordingly protected the lines and extended the right of requisition, charging meat companies rates as of the agreement of March, 1919, and exercised this privilege until August, 1921.

DEVELOPMENT OF BRITISH SHIPBUILDING

The rapid development of British shipping was, as stated, largely due to the early adoption of steam propulsion during the period of wooden or composite hulls and the similar adoption of the metal ship as soon as improved steel processes made cheap production of larger ships possible. The development of the British shipbuilding industry therefore was coincident with the development of the steam fleet.

It was estimated by the Booth committee¹³ that the capital invested in shipbuilding and marine engineering before the war was not less than £35,000,000 (\$170,000,000) and that the annual output exceeded a gross selling value of £50,000,000 (\$243,000,000).

EXTENT OF INDUSTRY

The third census of British production taken in 1924 placed the value of shipbuilding products, that is, vessels completed and other work of construction and repair, at £51,225,000 (\$249,286,500). Repairs comprised £16,652,000 (\$81,037,000) of this total, or 32 per

¹³ Departmental committee, Sir Alfred A. Booth, chairman: Report on Shipbuilding and Marine Engineering, July, 1918. Command Paper 9092, 1918.

cent of all work carried out in shipbuilding yards. In the first census of production of 1907 the value of shipbuilding activities was given as, total, £37,091,000 (\$180,503,400); repair work, £3,371,000 (\$40,737,500), or about 23 per cent of the value of all work done that year.

Shipbuilders who also made reports for the engineering trades in 1924 produced machinery products to a value of £13,662,000 (\$66,486,000).

Ships and boats launched in Great Britain and Ireland in 1924 and exported had an aggregate tonnage of 162,000 gross tons, or 11 per cent of the recorded tonnage launched; in 1907, 576,000 gross tons, or 34 per cent of the tonnage launched that year.

The net output of shipbuilding yards in 1924, that is, the amount by which the total value of the work done (£51,225,000) exceeded the cost of materials used (£29,003,000) was £22,222,000 (\$108,143,400). The net output per head of persons employed was £164 (\$795) in 1924 and £98 (\$475) in 1907.

Employment in shipbuilding yards, including engine works, in 1924 was 176,525, as compared with a total of 187,095 for 1907.

LAUNCHINGS IN RECENT YEARS

Lloyd's Annual Summary shows the gross tonnage of vessels launched in Great Britain and Ireland in 1900, 1907, 1910, and 1913-1930 to have been:

TABLE 42.—VESSELS LAUNCHED IN GREAT BRITAIN AND IRELAND¹

Year	Launchings	Year	Launchings	Year	Launchings
	<i>Gross tons</i>		<i>Gross tons</i>		<i>Gross tons</i>
1900.....	1,442,471	1917.....	1,162,896	1924.....	1,439,885
1907.....	1,607,890	1918.....	1,348,120	1925.....	1,084,633
1910.....	1,143,169	1919.....	1,620,442	1926.....	639,568
1913.....	1,932,153	1920.....	2,055,624	1927.....	1,225,873
1914.....	1,683,553	1921.....	1,538,062	1928.....	1,445,920
1915.....	650,919	1922.....	1,031,081	1929.....	1,522,623
1916.....	608,235	1923.....	645,651	1930.....	1,478,563

¹ See footnote 1, p. 193.

Source: Lloyd's Annual Summary.

HISTORY OF MODERN SHIPBUILDING

The following quotations from the Balfour Committee reports concisely state the history of British transport services and the development of the modern ship:

The history of modern shipbuilding dates back to the middle of last century. At the end of the Napoleonic wars the British merchant fleet consisted of something like 25,000 vessels, aggregating according to the rules of those days some 2,500,000 tons. A few of the East Indiamen were of over 1,400 tons; but with these exceptions the largest vessels did not exceed 700 tons and the average size was only about 100 tons. The total tonnage and the number of ships remained about constant for many years, and "it was not until 1850, when the navigation laws had been repealed, that any material advance was made by the shipowners of Great Britain in the improvement of their vessels."²⁴

²⁴ Lindsay, W. S.: *History of Merchant Shipping and Ancient Commerce*, p. 492.

Under the navigation acts no ship was entitled to the privileges of a "British ship" in the carrying trade of the United Kingdom and the colonies unless it was both British built and British owned and navigated. Consequently the British shipbuilders had a protected market; but they were not well placed for their supplies of the raw material then in use—timber—and they were not able to compete in price with the shipbuilding yards in countries with abundant supplies of suitable timber. For example, it appears from the evidence placed before Parliament when the repeal of the navigation laws was under consideration that the comparative cost of a well-found ship was then £10 17s. 6d. a ton in Danzig, £12 a ton in the United States of America, and £15 a ton in Great Britain. The result was that about the middle of the century the shipbuilding in the United Kingdom and the British Empire was very little in excess of the production in the United States.

In 1849 the navigation acts were repealed and, as a result of this and of the partly consequential passing of the merchant shipping act, 1850, and the merchant shipping consolidation and amendment act, 1854, the whole of the carrying trade of the United Kingdom and its colonies was thrown open to ships under all flags and wherever built. The British shipbuilders thus lost their assured market, and at the time they regarded the future with great apprehension. As events showed, the industry was at the beginning of a period of vast development and expansion, during which changes were to occur in such fundamental factors as the material of which vessels were built and their motive power. Iron plates were beginning to come into use in shipbuilding, and the steamship, although still in its infancy, had established its commercial value.

In 1850 both the iron and the engineering industries were already well established in the United Kingdom, and as those industries had been developed in and around ports in the United Kingdom excellent facilities were available for the building of ships within easy access to abundant supplies of coal and iron. It was the increasing demand after 1850 for iron ships and steamships that gave the British shipbuilding industry its opportunity, and skill and enterprise turned to the best account the natural resources of conveniently placed coal and iron. In other words, the change implied that ships were made of a raw material exceptionally easily available in Great Britain instead of one of which other countries had a more plentiful supply.

CHANGE IN MATERIALS

Adoption of iron.—Iron vessels had existed on canals in England as early as 1812. The first iron seagoing vessel was built at Horsley in 1821. The first iron vessel to be classed at Lloyd's Register was the *Sirius* (1837), built in London. In 1844 the *Great Britain*, 322 feet in length, designed by Brunel, was placed in the Atlantic trade. It was not, however, until 1855 that Lloyd's Register published their first rules for iron shipbuilding, and in those rules iron shipbuilding was described as being "yet in its infancy"; and iron steamships did not begin to displace sailing ships rapidly until some 15 years later.

The composite era.—It is worth mentioning briefly that, as the use of iron extended, an attempt was made during the fifties and sixties of last century to maintain the sailing vessels. In order to do so, improvements were made in both design and construction. The design of the clipper ship was much finer than that of the ordinary cargo carrier, so that a great increase of speed was achieved; and, further, the "composite" system of construction was evolved, by which an iron framework, partially plated, was combined with a copper-sheathed wooden skin, thus avoiding the loss of speed consequent upon the tendency of an iron bottom to become foul rapidly in sea water. The result was the evolution of such vessels as the *Cutty Sark*, considered to be the fastest sailing ships ever built. The continued improvement of steam vessels and the blow struck at sailing vessels in the eastern trade by the opening of the Suez Canal (1869) caused the failure of this attempt, and by 1870 the construction of composite ships had almost entirely ceased.

Adoption of steel.—The continued improvement of steam vessels was largely due to the fact that, in the meantime, another development of the first importance was in progress—the substitution of steel for iron in ship construction. Here again British shipbuilders took the lead. The first steel ship was built in 1858, but there was considerable prejudice against its use, while, consequent upon the small demand, the price of steel was high, being in the year mentioned nearly six times as expensive per ton as iron. How slowly steel was adopted will be seen from the following:

Tonnage owned in the United Kingdom at the end of: 1858—iron vessels 492,916 tons, steel vessels 111 tons; 1860—iron 515,968 tons, steel 713 tons; 1862—iron 638,005 tons, steel 828 tons; 1864—iron 822,367 tons, steel 6,331 tons; 1866—iron 1,097,745 tons, steel 16,710 tons; 1868—iron 1,191,096 tons, steel 8,813 tons.

In 1877 Lloyd's Register, after exhaustive experiments, adopted rules for the building of steel ships, under which a great reduction in the weight of the hull, and therefore a great increase in the carrying power of the ship became possible, whilst at the same time, owing to the use of steel for the boilers, greatly increased steam pressure could be used, and thereby marked economy effected in fuel consumption. From that date the steel vessel steadily replaced the iron, and before the end of the century the number of ships built of iron had fallen to nil.

CHANGE IN POWER

Small vessels propelled by steam power had been experimentally constructed in France, in the United States, and in Great Britain before the end of the eighteenth century,¹⁵ but the earliest steam vessels to ply for hire were Fulton's *Clermont* in New York in 1807 and Bell's *Comet* on the Clyde in 1811. The Atlantic was first crossed under steam power alone by the *Sirius* in 1833. Nevertheless, the adoption of steam was slow. In 1850 steam vessels represented less than 5 per cent of the total tonnage of the United Kingdom.

In the 20 years from 1850 to 1870 steam tonnage owned in the United Kingdom increased from 168,474 to 1,112,934, or by 944,460 net tons, but in the same period sail tonnage had increased from 3,396,659 to 4,577,855, or by 1,181,196 net tons. In the following 10 years, from 1870 to 1880, the tonnage built in the United Kingdom averaged 447,167 net tons a year, of which 141,767 were in sail and 305,400 in steam. By 1880 the steam tonnage owned in the United Kingdom had increased to 2,723,468 by an addition in the 10 years of 1,610,534 net tons, whilst the sail tonnage had fallen to 3,851,045 by a decrease in the 10 years of 726,810 net tons. After 1880 the building of sailing ships in the United Kingdom further declined, until before the war the yearly output had fallen to between 20,000 and 40,000 net tons, as against a yearly output of from 800,000 to 1,000,000 net tons of steam tonnage.

CHANGE IN SIZE AND SPEED

The *Britannia*, the first vessel of the Cunard fleet, which was built in 1840, was of 1,154 gross tons. The *Persia*, launched in 1855, was of 3,600 gross tons and was then the largest steamer in the world. These figures give some idea of the size of steamships in the middle of the century. A steady increase went on, and at the end of the century the largest vessel in the world was the *Oceanic*, of 17,275 gross tons. In 1903 the *Lusitania* and *Mauretania*, of approximately 32,000 gross tons, were commenced. A very great increase in speed was also achieved during the period, this being obviously equivalent, from the transportation point of view, to an increase in the size or number of ships. The *Britannia's* speed was 8½ knots, that of the first *Oceanic* (1871) 14¼ knots, and that of the fastest liner at the end of the century, the *Kaiser Wilhelm der Grosse*, nearly 23 knots. The average speed of the *Mauretania*, [then] the fastest liner afloat, is over 26 knots.

EVOLUTION OF NEW TYPES OF VESSELS

It is impossible to summarize at all briefly the changes that have taken place since the middle of last century in the types of vessels built. It can, however, be said that, in addition to the increased size of the vessels and the improvements in design, construction, and speed, numerous entirely new types have been created. For example, there is the development of refrigeration. The first cargo of frozen meat was brought from Australia to England in 1879, the first cargo of fruit was brought with refrigeration from Jamaica to England in 1896, and the first large cargo of dairy produce was brought from Australia in 1911. There are now afloat a fleet of vessels capable of carrying, on the

¹⁵ As regards Great Britain, the experiments conducted by Miller, Taylor, and Symington resulted in a vessel being driven by steam power alone on Dalswinton Loch, Dumfries, as early as 1788.

longest ocean voyages, fresh meat, fruit, and dairy produce. The introduction of this type of vessel has effected fundamental changes in the food supplies of many countries, and in doing so has brought into the markets of the world as buyers of manufactured goods the producers of those supplies.

Another important development is that of the "tankers," or vessels carrying oil in bulk, the first of which was built in 1886 and had a capacity of 5,000 tons of oil. Previously petroleum was shipped in barrels or tins, a method which was not only costly but involved loss of carrying space and lengthy periods of loading and discharge. The specially designed tankers carry thousands of tons of oil—the common capacity being about 9,000 tons, though 21,000 tons has been reached—which can be loaded or discharged in a few hours. The influence of this type of vessel upon the growing use of oil throughout the world, with all the effects of that development, has been of the first importance. The principle of carrying cargoes in bulk in specially designed vessels applies also to other commodities than oil; for example, coal, ore, and grain.

IMPROVEMENT IN ENGINE DESIGN

The developments in engine power and efficiency have been as striking and as rapid as the changes in the methods of ship construction. By 1850 the advantages of the screw propeller over the older form of paddle had been convincingly demonstrated, and the replacement of paddles by the screw was becoming general. The early engines of the side-lever and direct-acting type were followed by the compound or double-expansion engine. The design of boilers steadily improved, the old flat-sided box boilers giving place to cylindrical boilers, and higher steam pressures were attained, the maximum rising from 30 pounds per square inch in the early days to 70–80 pounds in the middle seventies. In the early eighties the triple-expansion engine made its appearance, while, with the introduction of steel, boiler pressures were increased still further to 150 pounds. Quadruple and even quintuple engines followed in the late nineties, with boiler pressures up to 220 pounds, and twin, triple, and later quadruple screws to obtain the power necessary for the large fast ships then being built.

At the beginning of the present century the steam turbine revolutionized high-speed traffic. The first vessel fitted with turbine machinery was built in 1897, and this type of machinery was rapidly adopted for warships, cross-channel vessels, and fast liners, the *Lusitania* and *Mauwetania*, which were commenced in 1903 and launched in 1906 and 1907, being so fitted. For 20 knots and upwards the turbine had no rival, but it was found to be uneconomical in coal consumption at lower speeds. In 1910 geared turbines represented a further advance.

Other improvements during the present century include the development of water-tube boilers, which have entirely displaced the cylindrical type in all warships; the extensive use of oil as fuel instead of coal; the growth of the internal-combustion engine, the first vessel, an oil tanker, having been fitted with one in 1907; and the introduction of turbine-driven and electrical auxiliary machinery. Oil burning, with its greatly increased efficiency in stoking and bunkering operations, has superseded coal in all naval vessels and in most of the important ocean liners, although in many cases an alternative installation is fitted for reverting to coal burning should the circumstances demand it. The advent of the Diesel, or heavy-oil engine (which originated in Germany but was first developed in Holland and Denmark shortly before the war), opened up another field of immense possibilities.

With the successive developments in marine engineering, coupled with the marked increase in hull efficiency, the average coal consumption for the ordinary cargo steamer fitted with steam reciprocating engines had dropped to 1.65 pounds per horsepower per hour in 1911 and to 1.45 pounds by 1914. The corresponding figure in 1928 was 1.40 pounds. In addition a steady improvement in hull design has resulted in the achievement of greater speed for a given horsepower.

POSTAL CONTRACT SERVICES

Conveyance of mails by sea between various parts of the United Kingdom, between the United Kingdom and British colonies and dominions, naval stations, and protectorates, and between the United

Kingdom and Europe as well as other parts of the world, is provided for in the budget estimates of Great Britain covering the expenditures of the British post office under the general title "Packet services." These services are divided into two broad classes—"home packet services" and "foreign and colonial packet services."

"Home packet services" relate to the carrying of mails between parts of the United Kingdom, including near-by islands, and are purely a domestic service, conducted by vessels between points where land transportation is inconvenient or impossible. In this manner they bear the same relationship to British commercial shipping as do the local coastal services of Norway and Italy.

The "foreign and colonial packet system" comprises the network of sea services that provides both scheduled sailings under contract for the purpose of carrying the mails and official channels of communication between the United Kingdom and the rest of the world.

Since 1837 the foreign contract system has been maintained primarily through privately owned vessels. Prior to that year essential mail services were provided by the steam packets of the Admiralty; and Admiralty packets continued to supply many of the local services and for some time after the adoption of the first private contracts, as was the general practice of the Government-owned steamer services for mails and passengers then being operated by Norway and France.

The outstanding features of these services are discussed in the pages following, particular attention being given to the eastern colonial system and some of the more important phases of the trans-Atlantic postal-contract system. On page 253 will be found a statement of the total annual appropriations for the postal-contract system covering the period 1901-1931, including the World War period. Services performed under contracts with the colonial or dominion governments are considered under the general titles of those colonies or dominions. (See Australia, p. 405; Canada, p. 461; New Zealand, p. 506; and South Africa, p. 604.)

BRITISH POSTAL COMMUNICATION WITH THE EAST

Most important of all colonial communications systems is the British postal-contract system to the East; its development comprises practically all phases of government responsibility in the maintenance of reliable communications between a home country and colonial subjects and in the elimination of time as a barrier to political and commercial intercourse between widely separated parts of a colonial empire.

British steamer services to the East have been continuously maintained under government contract for nearly a century. These were the first contracts for overseas services by privately owned and operated power-driven vessels. These services have continuously provided essential mail, passenger, and transport services for British official travel and commercial communication, and the payments by the British and colonial Governments for the established regularity and speed of these services has been, and still is, the largest single item of official expense in the British postal-contract system. Thus out of a total appropriation of £820,570 (\$3,993,300) by the home

Government for the year 1930-31, £367,000, or approximately 46 per cent, was provided for services through the Suez Canal.

The conflicting interests of governmental departments in relation to demands upon ocean communications, the conflicting interests of component parts of a colonial empire, and the adjustment of these differences to the best public interest comprise an important part of British Government procedure during the past century. Entire volumes of the British Parliamentary Papers are devoted to the postal-contract system. Reports of numerous parliamentary committees, beginning with the Select Committee on Steam Navigation to India in 1834, contain exhaustive technical discussion of steam navigation and its relation to the public.

This official record reveals a consistent public demand for elimination of time and increase in speed in ocean services on the one hand and a careful adjustment of this demand to reasonable commercial possibilities on the other hand. For these reasons the next few paragraphs are devoted to a historic sketch of the development of the services to the Far East.

EARLY SERVICES TO THE EAST

Great Britain may justly claim a considerable portion of the credit for opening the commercial routes to the East. The story of the origin of communication between Europe, India, and the East, both overland and by sea, is full of interest. In the early days of history the route to India was mostly overland via Syria and Persia, and, indeed, the story of the Book of Genesis and of the Chronicles of the Kings of Israel is the geography of this route. Later, when these overland routes were closed by the Mohammedan power in the fifteenth century and other means of transit had to be found, it was by way of the Cape of Good Hope that traffic then passed; and, later still, when the need for quicker transit arose, via the Red Sea. The Honorable East India Company had steadily obtained control of the eastern routes, not as the result of any sudden triumph but by steady endurance after a century and a half of frustration and defeat, and it was by ships of that company, running between India and Suez, that the connection between England, Egypt, and the East was maintained in the seventeenth and eighteenth centuries.

In 1834 a select committee of the House of Commons²⁸ inquired into the means of providing communication by steamer with India, and resolved in their report dated July 14, 1834, that the establishment of regular and expeditious communication by means of steam vessels was an object of great importance, both to Great Britain and to India. * * * Previously to this, however, in 1830, Gen. F. R. Chesney had begun to interest himself in an improved line of communication with India either by the so-called "overland route" across Egypt or by that through Mesopotamia and the Persian Gulf. He was in Egypt in 1830 and reported on the mail route through the Red Sea, and in the following year proceeded overland from Beirut to Amah on the Euphrates, to discover whether that river was navigable from there to the sea. He rather favored the Euphrates route on account of its being 170 miles shorter than the route by the Nile and Red Sea. Ultimately, General Chesney transported two steamers in sections from the Mediterranean to the Euphrates, where he put them together, and ran them. * * * In 1833 Lieut. Thomas Waghorn started his enterprise of the carriage of mails across Egypt, thence conveying them by the Red Sea to Bombay, and in a circular letter, dated January 8, 1835, he said:

"I write to inform you and other merchants connected with India that I leave London on Tuesday the 5th and Fa'mouth on Friday the 8th February, by the steam packet for Malta. On my arrival there I leave again forthwith for Alexandria, from there by land to Suez, sail down the Red Sea (wind is fair), across the sea for Bombay, where I expect to arrive in 70 days from England. On this occasion I shall carry as many single letters as I can get at 5 shillings each.

²⁸ House of Commons Paper No. 478, 1834.

"Any letters that your firm or your friends may wish to send by this quick opportunity for India I shall be glad to take. I shall be in England again in November next, and in all probability go (should a steam communication not be established between England and India) annually in February by this route so that once a year we may be certain of a quick communication with India."¹⁷

ORIGIN OF THE "P. & O."

The Peninsular & Oriental Steam Navigation Co. was the first commercial enterprise to carry the mails overland to the East and is the most important of all British colonial communications systems by reason of nearly a century of operation and by the extent of its services. Since 1837 the company has continuously been under contract with the British Government to provide mail services and essential passenger and communications facilities to the Spanish Peninsula and the East.

Following the experimental stage of the operation of Admiralty packets between India and Suez, this pioneer commercial enterprise undertook to carry the mails for considerably less than the Admiralty packets had cost and, moreover, injected regularity, the basis for all early subsidies to steam navigation.

The Peninsular Co. was formed by two ship brokers, Messrs. Willcox and Anderson, who had been instrumental in bettering the mail service between Falmouth and Lisbon. The original name, the Peninsular Co., was derived from the operation to the Spanish Peninsula. The first contract was concluded by negotiation after public bids had failed to produce competent bidders.

EAST INDIES AND AUSTRALIA SERVICES

PIONEER SERVICES TO SPANISH PENINSULA

The first contract for the conveyance of mails by the interests which were to become the Peninsular & Oriental Co. was concluded on August 22, 1837, between the commissioners for executing the office of Lord High Admiral of the United Kingdom of Great Britain and Ireland and Richard Bourne, shipowner. The contract provided for weekly mail services from Falmouth to Vigo, Porto, Lisbon, Cadiz, and Gibraltar and return by steam vessels on a time schedule not exceeding 216 hours from Falmouth to Gibraltar.¹⁸

The contract was for three years from September 4, 1837. If notice of termination was not given within six months before expiration, the contract was to continue in force until six months' notice of termination had been given. The Admiralty required the contractor to fit each vessel with armament consisting of 6, 9, or 12 pound guns, 20 muskets, 20 pistols, 20 swords, and 30 rounds of powder and ball, and stipulated that on each ship a naval officer should be carried. The payment for this service was £29,600 (\$144,000) annually, subject to reduction of £3,500 if Spain and Portugal remitted all port dues.

In 1839 the British Government effected a convention with the French Government for the transmission of mails for and from India

¹⁷ Monthly Journal of the International Postal Union, Vol. LIV, No. 12, December, 1929, pp. 384-397.

¹⁸ Sessional Papers, House of Commons, vol. 36, 1847, Paper No. 117.

through France via Marseille. From Marseille a British Admiralty vessel conveyed the mails to Malta, whence, with the larger and heavier portion which by arrangement was conveyed by the Peninsular & Oriental steamers via Gibraltar, they were taken to Alexandria. But these arrangements did not work regularly and the Peninsular & Oriental Co. was asked to submit a plan for establishing a more rapid and regular means of transportation to and from the East. The proposals made by the company being satisfactory, this service was undertaken.

EXTENSIONS TO ALEXANDRIA, CALCUTTA, AND HONG KONG

Extension to Alexandria.—The contract for the extension of the Peninsular operations to Alexandria was concluded August 26, 1840, between the Admiralty and Richard Bourne, Joseph Ewart, and Francis Carleton, "three of the directors of the Peninsular & Oriental Steam Navigation Co." The contract called for monthly sailings from England to Alexandria with two 400-horsepower steam vessels, and one 140-horsepower steam vessel from Malta to the Ionian Islands, the vessels to make the run from Falmouth to Gibraltar in 120 hours, from Gibraltar to Malta in 116 hours, and from Malta to Alexandria in 96 hours.

Admiralty requirements were that the ships should be able to carry and fire at least four guns of the largest caliber then used in the navy and that the Admiralty could purchase or charter the vessels at mutually agreed rates. Civil and military passenger fares were agreed upon, and in case a company of artillery was carried the field-pieces were to be transported free.

This contract was for five years, beginning September 1, 1840, and upon termination was to continue subject to 12 months' notice. The contract was subject to termination during its life upon six months' notice, in which case the Government paid a penalty fine of £29,000 if the contract were terminated during the first year, £27,000 if at the end of the second year, £25,000 if at the end of the third year, and £23,000 if terminated at the end of the fourth year. Payment for the first year was £38,000 (\$184,900), £36,000 (\$175,200) for the second year, £35,000 (\$170,300) for the third year, £34,000 (\$165,500) for the fourth year, and £33,000 (\$160,600) for the fifth year and annually thereafter.

Extension to Calcutta.—Under the terms of a third contract the company in September, 1842, opened its first operation east of Suez by means of a line of steamers between Suez and Ceylon, Madras, and Calcutta, employing therein the largest steam vessels which up to then had been in operation in eastern waters.

Extension to Hong Kong.—Under a contract of December 23, 1844, effective for seven years from January 1, 1845, the Peninsular & Oriental Steam Navigation operations were extended as far east as Hong Kong. Under the terms of this contract the company received annually £115,000 (\$559,600) for the line from Suez to Calcutta and £45,000 (\$219,000) for the extension to Hong Kong. The services from Bombay to Suez remained in the hands of the East India Company at a subsidy of £105,200 (\$512,000) annually.

CONTRACT OF JANUARY 1, 1853

Following a general investigation of the eastern mail services by a parliamentary committee from 1849 to 1851, and in conformity with recommendations made by that committee, specifications for public tenders for the eastern system, excepting the Suez-to-Bombay line, were issued. In response bids were submitted on February 26, 1852, by the Peninsular & Oriental Co. and the Eastern Steam Navigation Co. The former was the successful bidder, and on January 1, 1853, a new contract became effective, by which the company undertook semimonthly mail services between England and Alexandria, between Suez, Calcutta, and Hong Kong, between Malta and Marseille, and one each way every alternate month between Singapore and Sydney. The contract was for eight years and was terminable upon 12 months' notice.

Vessel equipment for these services comprised 15 steamers of not less than 1,100 gross tons each, 2 small vessels between Malta and Marseille, and 600-ton vessels in the Singapore-Sydney service. Speed requirements were 12 knots for the 1,100-ton vessels and $10\frac{1}{2}$ knots for the others, and an average sea speed of 10 knots was required, except between Singapore and Sydney where the speed requirement was only $8\frac{1}{2}$ knots.

THE OVERLAND ROUTE

Inasmuch as this contract recognized the advantages of railway services across Egypt, an account of the overland route is of interest. The following statement is taken from the International Postal Union Monthly Journal for December, 1929:

Those who have known the overland route only by being whirled across the Isthmus of Suez by rail can form little idea of the discomfort of the journey in prerailway days. In those early days, after landing at Alexandria the first part of the transit was by the Mahmoudieh Canal, which connected Alexandria with the Nile and by means of which the produce of the Nile Delta was diverted to that port from Rosetta, the former emporium of trade. This journey of 48 miles was accomplished in a big, mastless canal boat, in form not unlike the dahabeahs used to-day upon the Nile, towed by a steam tug at the rate of 5 miles an hour. From Atfeh, where the canal debouches from the Nile, steamers started for Cairo, a distance of 120 miles, and accomplished the journey in about 16 hours to Boulac, near Cairo, where passengers landed. Passengers had then to remain the night in Boulac, but sometimes two or even three days were spent at this place.

From Cairo to Suez the route lay across the desert for 90 miles, and the journey was performed in 2-wheeled omnibusses holding six persons and drawn by four mules or horses, the road being merely a track across the desert. There were various stations at which horses could be changed, and the journey took about 16 to 18 hours, of which time about 10 hours were occupied in actual travel and the remainder in stops for rest and refreshment. It may therefore be said that at this time a very efficient system had been provided by the Peninsular & Oriental Co. for the conveyance of mails, passengers, and cargo across Egypt. On arrival at Suez mails and passengers were embarked for the journey to India.

The transport of cargo by these primitive methods was even more difficult than that of passengers and mails, more especially between Cairo and Suez, where every package had to be carried on camel's back a distance of nearly 100 miles. Many thousands of these animals were employed in this work, which embraced, in addition, the carriage of water from the Nile for the several desert stations and for Suez.

The mail from the East, made up at Bombay, consisted of bundles of letters which were packed in strong iron boxes securely bound and sealed with solder,

as it was said wax would be melted by the heat of the climate. These boxes were stamped with a crown and the words "General Post Office Indian Mail" stenciled upon them. The number of boxes varied from 30 to 40, and together they constituted the mail conveyed from Bombay to Egypt.

As time went on further improvements were effected, and in the spring of 1851 the Peninsular & Oriental made arrangements for the construction of the railway between Alexandria and Cairo. This railway was completed in 1859. * * *

Various other contracts have been made at different times between His Majesty's Government and the Peninsular & Oriental for the conveyance of the eastern mails, which at one time included services to the Black Sea and to Mauritius. In 1928 the company performed in the course of its mail-contract services no less than 2,634,032 miles and provided space for mail matter totaling approximately 100,000 tons, comprising nearly a million and a half mail bags.

TRANSFER OF CONTRACT TO POSTMASTER GENERAL

The contract of January 1, 1853, remained in force, with alterations, until 1866, being thus extended from an original 8-year term to 14 years. During this period many changes occurred in the eastern contract services. Under agreements of July 7, 1854, June 1, 1861, and November 17, 1865, alterations to the basic contract were effected to meet the needs of the Crimean War. The Australian line was discontinued in 1854, the Peninsular & Oriental Co. sending its steamers into the Crimean War service. According to the company's report to the Government, it placed 11 steamers, aggregating 18,000 gross tons, in the service and transported 1,800 officers, 60,000 men, and 15,000 horses.

During this period an important change in policy took place in that by an act of Parliament of 1860 responsibility for the supervision of the mail-contract services was transferred from the Admiralty to the Postmaster General. This responsibility had rested with the Postmaster General prior to 1837, when the first Peninsular & Oriental contract was concluded, and was transferred to the Admiralty upon commencement of mail contracts with steamships, due to the fact that early experiments with steam mail services had been carried out with Admiralty vessels and so continued for many years.

The select committee report of July 27, 1849, stated in the opening paragraph in respect of the Admiralty packet system: "That so far as the committee is able to judge, from the evidence they have taken, it appears that the mails are conveyed at a less cost by hired packets than by Her Majesty's vessels."

CONTRACT OF FEBRUARY 27, 1866

In conformity with the change of policy the Postmaster General and the Peninsular & Oriental Co. concluded an agreement on February 27, 1866, which released the operating company from Navy inspection of vessels in operation or under construction.¹⁹

By the various alterations the services had been extended, curtailed, and accelerated. Severe protest followed the withdrawal of the services to Australia, with the result that public opinion there demanded service independent of the eastern system. The Peninsular & Oriental Co. offered to reestablish service to Australia from

¹⁹ Parliamentary Paper No. 331, vol. 40, 1866.

Ceylon. This offer was refused. Bids for a service from Suez to Australia were called for, and let to the European & Australian Steam Navigation Co., which company failed in 1858. Bids were reopened, and the Royal Mail and the Peninsular & Oriental Cos. bid on service from Great Britain to Australia, with branch services between Malta and Marseille. The Royal Mail bid was for £250,000 annually, while the Peninsular & Oriental bid was for £180,000 annually, which latter was accepted.

Included in the Peninsular & Oriental bid was a service between Aden and Mauritius which previously had been operated by the company. Subsequently, however, the system was revised and sailings based on Ceylon were established, thus bringing Australia into direct communication not only with Europe but with India. For this service the company received £134,672 (\$655,380) annually.

The eastern services by 1866 had reached a total contract amount of £396,000 (\$1,927,000), which was offset by a total postal revenue of £236,000 (\$1,148,000), leaving a net cost to the Government of £160,000 (\$779,000).²⁰

The time had arrived when weekly services to India were considered desirable, and it was planned to establish weekly sailings to Bombay, with rail connections through to Calcutta. The suggestion was made by the Government that the Australasian colonies provide their own services, to which the home Government would contribute 50 per cent. It was even suggested that the conveyance of the Australian mails be arranged over the subsidized lines of the French Messageries Maritimes, thus leaving a direct service to Bombay as the only responsibility of the British Government.

CONTRACT OF NOVEMBER 19, 1867

On November 19, 1867, a new contract was concluded, effective for 12 years from February 1, 1868, subject to 24 months' cancellation notice during the life of the contract, or thereafter in case of extension. Under the contract the Government required space preferment for official passengers and freight but paid commercial rates without rebate or reduction. The subsidy payment amounted to £400,000 (\$1,947,000).

This contract contains one of the first examples of capital guarantees by a government in relation to mail contracts. It was agreed (art. 37) that if a sum in excess of £213,000 (\$1,037,000) became available for the payment of dividends on an operating capital of £2,670,000 (8 per cent), one-fourth of such excess was to be paid to the Postmaster General. If, however, the amount available for dividends was less than £160,000 (\$779,000), or 6 per cent, the Postmaster General agreed to pay to the contractor, in addition to the subsidy of £400,000, a sum sufficient to make up an amount of £160,000 as net profit available for dividends, but not to exceed £100,000 in any one year (art. 38), the books of the company being at all times open to Government auditors.

This provision in effect guaranteed a minimum of 6 per cent on the capital invested by the operating company, based upon its normal

²⁰ Parliamentary Paper No. 405, 1867.

earnings, a principle which has since been included in many contracts of other countries. Under the terms of a further revision of the contract, dated August 6, 1870 (art. 46), the annual subsidy rate of £500,000 was paid retroactively to the termination of the original contract, which, by the revision, was fixed as April 1, 1869.²¹

Under the contract of November 19, 1867, the Peninsular & Oriental Steam Navigation Co. undertook the entire eastern system as follows:

Route No. 1.—Weekly sailings from Southampton to Alexandria and back, touching at Malta and Gibraltar. Distance, 2,951 miles; time, 295 hours; speed, 10 knots.

Route No. 2.—Weekly from Marseille to Alexandria, touching at Messina. Distance, 1,410 miles; time, 141 hours; speed, 10 knots.

Route No. 3.—Weekly from Suez to Bombay, touching at Aden. Distance, 2,972 miles; time, 313 hours, exclusive of time at Aden, which was to be fixed by Postmaster General; speed, 9½ knots.

Route No. 4.—Every two weeks from Suez to Calcutta, touching at Aden, Point de Galle, and Madras. Distance, 4,757 miles; time, 501 hours; speed, 9½ knots.

Route No. 5.—Every two weeks from Bombay to Hong Kong, touching at Point de Galle and Singapore. Distance, 3,852 miles; time, 406 hours; speed, 9½ knots.

Route No. 6.—Every two weeks from Hong Kong to Shanghai and return. Distance, 870 miles; time, 92 hours; speed, 9½ knots.

Route No. 7.—Every two weeks between Shanghai and Yokohama, touching at Hong Kong. Distance, 1,120 miles; time, 118 hours.

CONTRACT OF AUGUST 6, 1870

As stated, the contract of 1867 was originally drawn for 12 years, but at the time it was concluded the Suez Canal had not been completed and the effect of its opening was not wholly anticipated. The competition offered by both British and foreign vessels was made felt soon after the Suez Canal was opened,²² with the result that the Government became confronted with the certainty of paying £500,000 (\$2,433,000) under the contract. The question was complicated by disagreement as to allowances for reserve funds and profits from insurance until the Postmaster General suggested a fixed-payment contract.

This was arranged by a contract of August 6, 1870, effective retroactively from April 1, 1869, to February 1, 1880, subject to 24 months' notice thereafter, for a fixed annual figure of £450,000 (\$2,190,000), subject to the usual penalty clause. The only changes in the operating schedules consisted in a transfer of the Marseille-Alexandria sailings to Brindisi-Alexandria, reducing the time to 75 hours and increasing the speed to 11 knots.

CONTRACT OF AUGUST 1, 1874

On August 1, 1874, the Peninsular & Oriental contract was again modified to the extent that the annual payment was reduced to £430,000 (\$2,093,000), the sailings from Southampton, Plymouth, and

²¹ Parliamentary Paper No. 424, vol. 41, 1870.

²² Report of the Postmaster General, July 20, 1870, Parliamentary Paper No. 424, vol. 41, 1870.

Liverpool to Bombay to transit the Suez Canal. The mail time from Brindisi to Bombay was fixed at 422 hours and from Brindisi to Shanghai at 965 hours. The contract was made effective as of August 15, 1874, to continue until February 1, 1880, and thereafter subject to 24 months' notice.

CONTRACT OF FEBRUARY 7, 1879

Before the expiration of the contract of August 1, 1874, considerable protest arose against the Peninsular & Oriental operations in India. New specifications for public tenders were prepared and bids were received from four operators. That of the Peninsular & Oriental Co., though not the lowest, was accepted on the ground²³ that its service was direct and would reduce the time of the mails between Brindisi and Ceylon by 45 hours, between Brindisi and Singapore by 52 hours, and between Brindisi and Shanghai by 63 hours. The time saved for the mails was considered as being worth the extra cost of £33,500 annually in the public interest.

The contract of February 7, 1879, effective from February 1, 1880, to January 31, 1888, was to continue thereafter subject to 24 months' notice. The total annual subsidy was £370,000 (\$1,801,000), subsequently reduced to £360,000 (\$1,752,000). This contract abandoned the service requirements from the United Kingdom, the contract sailings being based upon Brindisi, all mails being carried across the channel and forwarded overland to Brindisi.

The Australian service, which had been carried on under the contract of 1866 for £130,000 (\$633,000) annually, was renewed at the same time and for a like period. The service consisted of sailings every 14 days between Point de Galle or Colombo and Melbourne in 456 hours, in return for an annual payment of £85,000 (\$413,650), a reduction of £45,000 from the former amount, due to competition by, and to the division of service with, the Orient Steam Navigation Co.

CONTRACTS OF 1888

Contracts were concluded with the Peninsular & Oriental Steam Navigation Co. under date of March 18, 1887, for the East India and China mail service, and under date of January 19, 1888, for the Australian service. A contract was also concluded with the Orient Steam Navigation Co. under date of January 22, 1888, for mail service to Australia. All contracts became effective on the same day, February 1, 1888, but the two contracts for the Australian service were for seven years ending January 31, 1895, whereas the East India contract was for 10 years ending January 31, 1898.

The East India contract provided an annual subsidy of £265,000 (\$1,290,000), and advanced the speed from 11 knots, which had been the requirement both between Brindisi and Alexandria and between Suez and Bombay, to 13½ knots between Brindisi and Alexandria and to 12 and 12½ knots between Suez and Bombay.

The Australian contracts were awarded to the Peninsular & Oriental Steam Navigation Co. and to the Orient Steam Navigation Co. under an arrangement which provided for alternate weekly direct

²³ Treasury minute, Feb. 17, 1879.

mail sailings between London and Sydney, calling at Brindisi for, and with, mails on both the outbound and the inbound passage. The total subsidy for the double service was £170,000 (\$827,300) divided into equal parts of £85,000 to each company. The United Kingdom paid £95,000 of the total and Australia £75,000.

Under agreement of January 30, 1895, both of the Australian contracts were extended for three years until January 30, 1898, the object being to secure termination of the eastern contracts on the same date.

CONTRACTS OF MAY 25, 1897

On May 25, 1897, contracts were again concluded with both the Peninsular & Oriental and the Orient Cos. for services. These contracts became effective February 1, 1898, for seven years ending January 31, 1905, subject to cancellation thereafter upon 24 months' notice.

By this time the speed contest which was being waged in the North Atlantic was felt, and the increased speed requirements under the new contract were considerable, as shown in Table 43.²⁴

TABLE 43.—SPEED REQUIREMENTS UNDER 1888 AND 1898 CONTRACTS

To—	Speed, from Brindisi		Mail transit time, from London				Subsidy	
			1888		1898		1888	1898
	1888	1898	Days	hours	Days	hours		
Peninsular & Oriental contract:	<i>Knots</i>	<i>Knots</i>						
Bombay.....	12.54	14.50	16	12	14	16	£330,000	£353,550
Shanghai.....	11.20	13.30	34	16	30	16		
Adelaide.....	12.13	14.00	37	10	32	18		
Orient contract: Adelaide.....			34	18	31	6	85,000	85,000

The speed indicated was not stipulated in the contracts except as calculated upon the number of hours allowed for passage.

The Peninsular & Oriental contract again contained Admiralty clauses. Under an agreement dated April 3, 1894, the Admiralty reserved the right to purchase or charter the contractors' vessels. For the year 1894-95 the navy estimates carried an appropriation of £3,875 (\$18,850) as a subvention for four of the Peninsular & Oriental vessels.

CONTRACT OF JULY 25, 1904

Before the contracts of May 25, 1897, expired a committee investigated the eastern mail services and recommended²⁵ an extension of the existing Peninsular & Oriental contracts to 1908, with a requirement of 24 hours' acceleration between Brindisi and Bombay. This was a concession to the Government of India, which was the largest contributor to the subsidy after the United Kingdom. This increased the vessel speed to India to nearly 16 knots. The committee stated (par. 5) that the mileage rates of competing subsidized services were: Messageries Maritimes for its Australian subsidy, 8s. 4d.

²⁴ Parliamentary Paper No. 259, vol. 52, 1897.

²⁵ Parliamentary Paper No. C D 2082, vol. 23, 1904.

(\$2.03) per mile; North German Lloyd to East Asia and Australia, 5s. (\$1.22) per mile; Peninsular & Oriental, 5s. 5d. (\$1.32) per mile, as calculated by the post office.

The committee went on record in favor of short-term (7-year) contracts, for the reasons (1) that long contracts would exclude the mail service from the benefits of the most recent marine inventions and appliances, and (2) that the House of Commons had at various times supported short-term contracts. Beginning in November, 1903, the mails from London had been dispatched by way of the trans-Siberian railway, reaching Peking in 23 to 26 days. "This route can not fail, if maintained and thoroughly developed, to become the most expeditious for communication with Japan and China and perhaps Hong Kong. It would seem possible for mail from London to reach Yokohama via Siberia under 27 days, as compared with 32 days via Vancouver, 30 days via Seattle, 33 days via San Francisco, and 33 days via Suez."

The committee considered the Siberian route not reliable, but stated that this, in an emergency, was offset by the Canadian Pacific Railway contract services (which was in force for 20 years from 1889) by means of which British mails, so far as the land haul was concerned, would move entirely through British territory.

ADMIRALTY SPEED POLICY

However, the committee stated that the "Suez route is by far the cheapest." In respect of Admiralty policy it was pointed out that the Admiralty had, a few months before, decided only to subsidize, for cruiser purposes, vessels which could run at a speed of 22 knots, and that since the number of such ships was restricted the post office had to be contented with slower vessels. "It is pertinent to observe that the decision of the Admiralty only to subsidize merchant vessels attaining a speed of 22 knots will set free a number of ships now carrying special Admiralty fixtures and enable them to give more space for commercial purposes and mails."

Control over freight rates was strongly urged. Following the example of the House of Commons committee which reported on steamship subsidies in 1902, the committee recommended the inclusion of clauses in all future contracts whereby the contractor would be prohibited from giving undue advantages to foreign shippers such as authorized in the subsidy report of 1902, wherein it was shown that goods from both Europe and the United States were carried to Great Britain and transhipped to the Far East at lower rates than the straight rates from the United Kingdom to the Far East.

Accordingly a contract was concluded July 25, 1904, supplementary to the contract of May 25, 1897, by which the Far East services were prolonged to January 31, 1908, and power granted the Postmaster General to prolong the contract to five or seven years. The contract called for (1) acceleration of 24 hours, subject to certain conditions, and (2) increase in subsidy from £300,000 to £340,000, subject to reduction if the company elected to abandon its Australian branch.

P. & O. CONTRACT OF AUGUST 15, 1907

The last general contract concluded with the Peninsular & Oriental Steam Navigation Co. was dated August 15, 1907, and was to be effective for seven years from February 1, 1908, to January 31, 1915, and if not terminated to continue thereafter until 24 months' notice has been given by either party to the contract. This is the contract under which the East India and Far East services are now operating, and indicates that despite the recommendation of short-term contracts no development has taken place since the World War which would be of sufficient advantage to the Government to warrant the revision of the original contract.

Under the contract of August 15, 1907, the annual payment was fixed at £305,000 (\$1,484,000), more or less, depending upon certain conditions. The amount was lowered to £295,000 (\$1,436,000) for some years, and more recently has been increased to £305,000 for the performance of the services included under the original contract. A weekly service from Brindisi to Bombay in 270 hours is called for, and fortnightly services from Brindisi to Shanghai in 678 hours and from Brindisi to Adelaide in 638 hours.

SUMMARY OF EASTERN SERVICES AND POLICIES

In the 70 years between 1837 and 1907, which witnessed the first and last contracts with the Peninsular & Oriental Steam Navigation Co., power-development and ocean-speed history was written. This development did not take place primarily in the eastern services, but in those services the contract speed was practically doubled—from 8½ knots to 16 knots.

During the entire period only the very first contracts in the eastern service specified the type of vessel equipment. The final determination of what constituted a satisfactory mail ship was left to the Admiralty or to the Postmaster General, and all contracts referred specifically to the floating equipment as "mail ships," which term is still employed in the new trans-Atlantic service contracts.

The principle of public bidding upon prepared specifications wholly or in part covering the eastern system, was employed except in minor instances. The principle of accepting the lowest bids of competent bidders was not always followed; but when this principle was set aside it was always justified before Parliament, usually upon certain time-saving proposals made by the bidders. On the other hand, instances are recorded where the services of specially built speed vessels, suitable only for the fast transmission of the mails, were not accepted because such vessels were limited in their commercial possibilities and the general policy of a balanced official and commercial operation was considered preferable to a mere saving of mail time.

The period of Admiralty administration and policy has been referred to. Originally it was primarily an experimental development to which the Admiralty held the principal solution in the shape of competent seagoing steam engineers; when the reliability of steam navigation was established, the Admiralty stepped out. Moreover the Admiralty in the beginning of the present century adopted the policy of interesting itself only in ships capable of developing 22

knots, thereby limiting its interest to half a dozen vessels. Prior to this the navy estimates carried small, varying amounts for individual vessels owned by the contractors, but such amounts were in the main assumed to cover capital charges on protected steering gears, extra stiffening for gun platforms, and boiler and engine room protection, which were required by the Admiralty and which created extra costs to the shipowner.

The Australian Government served notice that it would not continue to be party to postal contracts with operators who employed colored labor. This was directed principally at the Peninsular & Oriental Steam Navigation Co.'s employment of lascars on board its vessels, because of the lascars' ability to endure the equatorial climatic conditions in which these vessels constantly operate. This ended joint participation by the home Government and the Australian Government in postal contracts.

Originally the overland route through Egypt was not considered the most feasible, all early accounts and evidence favoring the Euphrates River route, thence overland to the eastern Mediterranean. To this end vessels were carried overland to the Euphrates, in sections, assembled, and sent down the river on experimental voyages.

Prior to the opening of the Suez Canal one of the most formidable problems was the maintenance of adequate coal stores in eastern waters. The carrying of British coal to these stations, however, furnished outward cargoes for freight vessels plying to the East, and supplied the essential balance for cargo-vessel operations which has been such a factor in the development of British shipping. Thus the opening of the East was indirectly aided not only by the quickened communication system provided by the contract vessels but also by the supporting freight services which supplied the essential fuel requirements. The Peninsular & Oriental Steam Navigation Co. constantly maintained a stock of 90,000 tons of coal in the eastern stations and employed as high as 170 sailing vessels in the transport of this stock. From 1856 to 1865 the company accounts show an expenditure of £5,250,000 (\$25,550,000) for coal alone.

The actual amounts earned through fixed payments by British operators of vessels into the East vary from 30 shillings (\$7.30) per mile at times and on certain runs to 4 or 5 shillings (\$0.97 to \$1.22) per mile at other times on the main lines. A fair average during the period of competition beginning with the opening of the Suez Canal would be 5 shillings per mile sailed. Statements of Peninsular & Oriental officials indicate 4 shillings per mile as the return on contract services.

Penalty provisions of the eastern postal-contract system have always been heavy. For the general performance of the contracts bonds in amounts from £35,000 (\$170,000) to £60,000 (\$292,000) have been in force, while the sum of £500 (\$2,433) has been included in contracts for each day's delay in sailing. Hours of departure, time at ports of call, and allowances for the monsoon periods have always been specified in the contracts and enforced.

No general estimate of the net cost of the system to the home Government has been made. At intervals the total amount of postage received for the mails sent over the system, plus the contributions made by the colonial governments, has been set up to show a rela-

tively low net cost to the public treasury. On the other hand, the mails (except parcel post) have been placed on board of, and discharged from, the contract steamers at Brindisi or Marseille, and not in the United Kingdom. The cross-channel and European railway transit charges will materially offset the above-stated credits.

HONG KONG SERVICE VIA CANADA

In October, 1885, specifications were advertised, calling for bids for mail services to the Far East to replace existing contracts due to expire January 31, 1888. Included in the competitive bids received for the services was one from the Canadian Pacific Railway Co. for a service to Hong Kong by way of Canada. The tender was not accepted, but in 1887 the company submitted a modified tender along the same itinerary.

The British Government considered the scheme as offering, as a whole, a direct communication service between the United Kingdom and Hong Kong entirely through British land territory and as an alternative route to the east in case of necessity. It was recommended on the basis of saving time, as of military value in providing transport service through British land territory, and as affording vessels of cruiser type.

CONTRACT OF JULY 15, 1889

The Canadian Parliament in 1889 authorized payment of £15,000 (\$73,000) annually as a contribution to a contract for monthly service to Hong Kong or £25,000 (\$122,000) for a fortnightly service. A contract was accordingly concluded on July 15, 1889, for a term of 10 years from the date of the first departure from Hong Kong, terminable on January 31, 1898, on six months' notice. The total annual payment was fixed at £60,000 (\$292,000), of which the Canadian Government contributed £15,000.

The contract stipulated that the mails should be transported from Halifax or Quebec to Hong Kong in 684 hours from April to November, and in 732 hours from December to March.

The vessels were to be built under Admiralty inspection and to Admiralty specifications, to a speed of 17½ knots on a measured mile and 16 knots on sea trials.²⁶

CONTRACT OF OCTOBER 12, 1901

On October 12, 1901, the contract of 1889 was prolonged for five years to April 6, 1906, for the carriage of mails, troops, and stores between Halifax or Quebec and Hong Kong.²⁷

When the 1889 contract was made it was anticipated that the Canadian Government would secure acceleration of the Atlantic service through the construction of fast vessels by the Canadian Pacific Railway Co. This anticipation was not realized, and the 5-year prolongation of the contract was to enable the contractor to complete the construction of the necessary vessel equipment.

The contract of 1901 provided the same annual payment, £60,000, toward which the Canadian Government agreed to contribute

²⁶ Parliamentary Paper No. 263, 1889.

²⁷ Parliamentary Paper No. 21, vol. 55, 1902.

£15,000. The service requirements called for monthly sailings on the same time schedule as stipulated in the first contract, and the contractor agreed to construct all new vessels for the services under Admiralty supervision, vessels to be fitted with gun platforms. The Admiralty was to have the right to hire the vessels for 20s. (\$4.87) per ton per month for the first five months and 17s. 6d. (\$4.26) for the subsequent period, the Admiralty to provide and pay the crew.

The Admiralty also reserved the right to purchase the vessels at the price of the value of the vessels on the date of purchase plus 10 per cent for compulsory sale, in addition to paying for delivery to North Pacific station. The "value on the day of purchase" was to be the cost price of the vessels to the company in the United Kingdom less 6 per cent per annum from day of completion to day of purchase. The company agreed to employ, so far as possible, members of the Royal Naval Reserve.

RENEWALS OF 1907, 1908, AND 1911

On February 2, 1907, the contract of October 12, 1901, was prolonged to April 6, 1908.

The original object of extending the first contract was to enable the contractor to accelerate the trans-Atlantic service. This had been accomplished by the institution of the fast trans-Atlantic services of the Canadian Pacific Railway on July 26, 1906. By this arrangement the passage time from Liverpool to Hong Kong was reduced by about 10 days.²⁸ Under the previous contract the time from Halifax and Quebec to Hong Kong had been 684 hours. Under the new contract the time from Liverpool to Hong Kong was established at 708 hours, the entire service, both rail and ship, being supplied by the Canadian Pacific Railway. Another new stipulation was that on the trans-Atlantic vessels at least three-fourths of the crew should be naval reservists.

The subsidy remained at £60,000 annually, to which the Canadian Government contributed £15,000. The British Admiralty, however, was not a party to this contract as in the case of the previous ones, and withdrew an Admiralty contribution of £7,312 (\$35,600).

The House of Lords assented to this extension with some hesitation, taking the position that the use of the route for postal traffic had been comparatively small, that the Admiralty had not felt justified in continuing its contribution, and that the War Office had made no favorable recommendation. The treasury minute states:

My Lords do not regard with favor the grant of subsidies on commercial grounds, and they take note of the opinion recently expressed by a select committee of the House of Commons (H. of C. 385 of 1902, p. xxv) that a general system of subsidies other than for services rendered is costly and inexpedient. They have, however, thought it best, as a purely temporary measure which will allow time for further consideration, and in view of the important modification introduced, to concur in the extension for a period limited to two years, and they approve the contract accordingly.

On October 12, 1908, the contract was prolonged for three years from April 7, 1908, with sailings every three weeks in each direction (instead of once in four weeks), some changes in itinerary, and an

²⁸ Treasury Minute, Feb. 27, 1907.

extension of the voyage time. The subsidy was reduced from £60,000 (\$292,000) to £45,000 (\$219,000), of which the Canadian Government agreed to advance £25,000 (\$122,000).

On November 11, 1911, the contract of 1908 was prolonged for two years from April 7, 1911. Some minor alterations were made in the terms, and a requirement was inserted by the Canadian Government that Canadian trade commissioners were to be transported without charge.

UNITED STATES SERVICES

The history of postal-contract services between the United Kingdom and the United States divides itself into periods:

1840-1867: Period of Admiralty contracts. Annual payments rose from £60,000 to £173,340.

1868-1876: First period of Postmaster General contracts. Annual payments ranged from £109,000 to £118,000.

1877-1902: Second period of postal administration. Mail pay on weight basis at various rates. Annual cost increased from £28,214 for ships contracting to carry mails to more than £100,000.

1903-1927: Mail contracts with Cunard and White Star Cos., for an annual total of about £140,000.

1928-1932: Postal contracts with Cunard and White Star Cos., for annual payments of £200,000.

The first contracts were concluded with the Admiralty. The responsibility for the packet services was transferred to the British post office in 1860. As early as 1857 the British Postmaster General protested the contract system and suggested poundage rates, due to available competitive service. However, the contract system was continued, first with Mr. Cunard and later with both the Inman and the White Star Lines in addition. In 1866 the Postmaster General requested authority to terminate the contract services and succeeded in doing so, as of December 31, 1876.

From 1877 to 1902 the trans-Atlantic mails were carried on a weight basis at rates varying from 2s. 4d. to 4s. (\$0.56 to \$0.97) a pound, and at 3s. (\$0.73) a pound during the greater part of that time.

The Admiralty contract of 1903 was effective for a 25-year period and was made for a special purpose. The present (1928-1932) contracts, amounting to £200,000 (\$973,000) to two companies for semi-weekly services, are assumed to be a fair payment for the carrying of the mails. The Admiralty and the Board of Trade have no direct interest in these contracts.

EFFECT OF POSTAL CONTRACTS

The effect of the British postal-contract system between the United Kingdom and the United States is problematical. Official evidence for and against the contract as a means of developing either vessels or services is equally voluminous.

Fundamentally the trans-Atlantic mail ship, so called, between the United States and the United Kingdom is a shuttle in an extended ferry service. In this service has occurred the largest movement of mails, passengers, and emigrants in the history of ocean shipping.

The political reason of colonial communication has not existed. The commercial reason of trade penetration of new markets can not be sustained; markets preceded, and constituted a cause, rather than an effect, of shipping in the trade.

It should be stated that no British mail contract between the United Kingdom and the United States had called for definite speeds until the contracts of 1928, and these named speeds well below the capacity of the contractor's vessels. The only requirement has been general seaworthiness of vessels and explicit sailing times. However, the log performance of every ship carrying British mail to the United States has been officially kept. During the period of mail pay at pound rates any contractor offering his ship for the mail service was required to submit certified copies of the ship's log for three preceding voyages.

Only once during the history of the North Atlantic postal service have vessel requirements been laid down under contract, and that was in connection with the Cunard contract of 1903. (See p. 241.) This, however, was at the special demand of the Admiralty and was not specifically a part of the postal portion of the general contract. It is true that the first Cunard contracts specified vessels of 400 horsepower for the trans-Atlantic run, but this was for the run to Halifax; the branch services to Boston and, later, New York were required to be carried out by 150-horsepower vessels.

So long as the Cunard Co. contracted with the Admiralty it maintained a virtual monopoly. The diversion of the Cunard operations from Halifax to New York and Boston was caused not by the requirements of British authorities but by the competition of the projected Ocean Steam Navigation and Collins Cos., both of the United States. Elimination of the contract, or fixed-payment, system was due entirely to the availability of competitive ships of high speed and power whose success depended more upon speedy transportation of emigrants than upon any other form of revenue. In this the United States and German companies played an important part. When the American Line was inaugurated, in 1893, it owned the fastest and most popular quartet of vessels in the Atlantic. When the large and fast vessels of the Hamburg-American Line and the North German Lloyd appeared, both the British and the United States fleets were outdone in performance at sea and in number of passengers carried, and from 1897 to 1907 speed laurels rested with ships of German nationality.

PERIOD FROM 1840 TO 1867

THE FIRST CONTRACT

The first contract for mail services between Great Britain and the United States was concluded between the Admiralty and Samuel Cunard on July 4, 1839, by private negotiation. Specifications for public tenders had been prepared and invited, but the tenders were unacceptable and consequently were rejected.

By this agreement Mr. Cunard was to provide two mail sailings every month between Liverpool and Halifax with vessels of not less than 400 horsepower, also two sailings between Halifax and Boston

and a service between Pictou, Nova Scotia, and Quebec when navigation on the St. Lawrence was open, employing 150-horsepower vessels in these two services.

Terms of the contract

The contract of July 4, 1839, was made effective from June 1, 1840, for seven years, and was to continue from that time until 12 months' notice had been given. Mr. Cunard was to be paid £60,000 (\$292,000) annually, subject to deductions or fines for delays. A performance bond in the amount of £15,000 (\$73,000) was required.

Certain space reservations for official passengers and freight were required and the passage rates specified. The contractor agreed to carry a naval officer or officer of the postal service to supervise the fulfillment of the contract.

In consideration of increase of size and number of vessels the contract amount was increased to £80,000 in 1841 and to £90,000 in 1846, but subsequently was reduced by £5,000 due to the discontinuance of the St. Lawrence part of the service.

Result of competition

Plans then under way in the United States to promote the Collins and the Ocean Steam Navigation Cos., which would compete with the Cunard operations, caused Mr. Cunard to double the service and to make weekly sailings between Liverpool and Halifax, thence to New York and Boston alternately. Under this agreement he was free to proceed directly to New York, omitting the call at Halifax when the competing services out of New York commenced operations.

Under the terms of his contract Mr. Cunard was entitled to a double amount of subsidy for a weekly service. The Admiralty, however, took the position that since he was the interested party in developing a weekly service with which to meet the competition of the New York lines, the Government would agree only to doubling the original sum of the contract, £60,000. Accordingly, this sum was added to the £85,000 established for services twice a month, or a total of £145,000 (\$705,600) for a weekly service.²⁹ This instance provides one of the first examples of the effects of commercial competition upon subsidized mail services.

In August, 1844, the Cunard Co. reduced rates from £7 (\$34) to 70 shillings (\$17.03), opposing the *Great Western*. In May, 1848, rates were reduced from 70 shillings to 50 shillings (\$12.17), opposing the steamship *United States*. Fine goods were taken by the Cunard Co. at 30 shillings (\$7.30) in opposition to the *City of Manchester*.³⁰

Under the revised contracts and weekly schedule the service cost to the British Government approximated \$2.50 per mile.

CONTRACTS OF 1850 AND 1852

Upon expiration of the first Cunard contracts from 1840 to 1851, new contracts dated April 1, 1850, and January 1, 1852, were con-

²⁹ Parliamentary Paper No. 571, vol. 12, 1849, Cunard testimony, p. 134.

³⁰ Parliamentary Paper No. 730, p. 55, vol. 95, 1852-53.

cluded for a period ending January 1, 1862, to continue thereafter subject to 12 months' notice. These contracts provided for weekly services between Liverpool and New York or Boston for an annual subsidy of £173,340 (\$843,600).

The report of the Committee on Contract Packets (1853) stated that the rate of the subsidy payment was 11s. 4½d. (\$2.77) per mile; that the average duration of 54 voyages between Liverpool and New York for the period December, 1851-January, 1853, had been 12 days 1 hour 14 minutes and the average speed 10⅝ knots, and that the postal revenues on the line offset the contract so that the net cost to the Government was £61,642 (\$300,000).

CONTRACT OF JUNE 24, 1858

In 1857 Mr. Cunard requested a 5-year extension of his contract of 1850, presenting as his principal reason a plan for building larger and costlier vessels, which, he stated, would be useless without a postal contract.

This gave rise to considerable discussion in high official circles on the general policy of subsidized services in the North Atlantic and the effects of competition. Negotiations continued from October 19, 1857, the date of Mr. Cunard's request, to the concluding of the contract of June 24, 1858. The burden of the argument of two postmasters general was opposed to extension of the contract at the time and suggested payments based upon the amount of mail carried, as well as upon accommodations for working the mail while under weigh. It was argued that the rapid rise of fast competitive services was a natural result of public demand and that new and larger vessels were justified by commercial requirements quite apart from postal requirements.

The Admiralty and treasury, on the basis of the public interest, outside of postal requirements, decided in favor of the extension of the existing contract,²¹ which was renewed by contract of June 24, 1858, effective from that date to January 1, 1867. The annual payment remained as before at £173,340 (\$843,600), with an additional £3,000 (\$14,600) for a monthly service between New York and Nassau.

Competition for trans-Atlantic mail contracts

On February 8, 1866, the British Postmaster General requested, and was granted, authority to serve notice of termination of the Cunard contract upon expiration, and to call for public bids for the conveyance of the trans-Atlantic mail. The Admiralty had in the meantime been withdrawn from the administration of mail contracts. (See p. 232.)

At the same time the Postmaster General requested authority to enter into new postal agreements with United States officials, stating that one important object in a new convention would be to effect a reduction of postage between the two countries "from 1s. (\$0.24) the half-ounce letter to 6d. (\$0.12)." This proposal had been approved by the United States Post Office but had been delayed because of the

²¹ Parliamentary Paper No. 184, vol. 22, 1859.

extra loss which the British Post Office would bear under the Cunard contract if the postal rates were reduced prior to the termination of that contract.

A 1-year contract for weekly services in consideration of a payment of £80,000 was concluded with the Cunard Co. This amount was subject to certain increases in case insurance rates were increased on the vessels and coal cargo. This payment was less than half of that under the previous contract and was reduced by whatever sums were paid to the Cunard Co. by the United States for mail carried from New York to Queenstown.

During 1868 the Cunard payment amounted to about £73,000 (\$355,250), while £23,390 (\$113,825) was paid to the Inman Line, £11,772 (\$57,290) to the North German Lloyd, and £5,157 (\$25,100) to the Hamburg-American Line. The amount of postage earned by the Cunard vessels was £28,686 (\$139,600). It was stated that 46 per cent of the outward mail from the United Kingdom to the United States was carried on Cunard vessels, while 13 per cent went by Canadian and 41 per cent went by United States vessels.

CONTRACTS OF 1867

North German Lloyd contract.—On November 30, 1867, a contract was concluded with the North German Lloyd Co. for mail service from Southampton to New York, with sailings from Southampton every Tuesday to reach New York in 276 hours. The contract payment was the postal rate of 1 shilling (\$0.24) per ounce of letters carried and 3 pence (\$0.06) per pound for newspapers. The contract became effective on January 1, 1868, subject to termination upon six months' notice.

Inman contract.—On December 3, 1867, a contract for weekly services from Queenstown to New York was concluded with the Inman Line on terms similar to those of the North German Lloyd contract. For a service to Halifax the Inman Line was paid £750 (\$3,650) per round voyage.

PERIOD FROM 1868 TO 1876

A select committee appointed in 1868 reported to the House of Commons on March 23, 1869. After reviewing the trans-Atlantic mail services and the contracts under consideration for renewal the committee stated (par. 17):

Under all circumstances we are of the opinion that, considering the already large and continually increasing means of communication with the United States, there is no longer any necessity for fixed subsidies for a term of years in the case of this service; and having regard for the fact that a weekly service has been carried on by Mr. Inman in 1868 in consideration of receiving the sea postage only, to the difficulties which these contracts would for eight years throw in the way of any great reduction of postage, * * * we recommend that the contracts with Messrs. Cunard and Mr. Inman's company be disapproved, compensation being made, if necessary, on the basis of the contracts for services already performed in the past year.

CONTRACT OF DECEMBER 11, 1868

The recommendation of the select committee above referred to was disregarded and the Government concluded contracts with the Cunard and Inman companies from Queenstown to New York, and with the North German Lloyd Co. from Southampton to New York.

Dated December 11, 1868, the Cunard contract was effective from January 1, 1869, for seven years, subject to 12 months' notice of termination, which was not given prior to December 31, 1875. The contract called for semiweekly services for an annual payment of £70,000 (\$340,650), and required 12-knot vessels, except those owned by the contractors at the date of the contract.

The Inman contract was similar to the Cunard contract, but provided for weekly services for £35,000 (\$170,300) annually.

The North German Lloyd contract was subject to six months' notice of termination and was made in consideration of mail pay.

PERIOD FROM 1877 TO 1902

ADOPTION OF MAIL PAY SYSTEM

On December 31, 1876, the Cunard, Inman, and North German Lloyd contracts expired. No new contracts were concluded, but it was decided to adopt a system of employing from month to month the best vessels that could be obtained, paying the owners a rate per pound for letters and printed matter actually carried.³²

Under the last contract the annual payments for the mails to the United States ranged from £109,000 to £118,000 (from \$530,400 to \$574,200) per year; for the year 1877 the total cost was £28,214 (\$137,300). During the period 1868 to 1876 the annual payments were made to three companies, the Cunard, Inman, and North German Lloyd; in 1877 the payments went to six companies, the White Star (Oceanic Steam Navigation Co.), Guion, and Anchor Lines being added. During the period 1868 to 1876 the highest payment to one company was £80,000 (\$389,300), in 1868, to the Cunard Line; in 1877 the Cunard Co. was paid £8,022 (\$39,000) and the Inman Co. £5,482 (\$26,700).³³

According to the report of the British Postmaster General for 1878 the initial mail pay of 2s. 4d. (\$0.57) a pound for letters and 2d. (\$0.04) a pound for printed matter was increased to 4s. (\$0.97) for letters and to 4d. (\$0.08) for printed matter. This rate was applicable to the vessels of the Cunard, Inman, and White Star Cos., which complained that owing to receipts from other sources they could no longer consent to carry mails for the amount of sea postage which had been paid them during the preceding 11 months. The payment for services to the United States accordingly rose to £57,447 (\$279,600) for the year 1880.

On October 5, 1883, the Postmaster General served notice on all contractors carrying mail between the United Kingdom and the United States that, effective August 31, 1884, all existing contracts would expire, and that in the future monthly contracts would be in order at the rate of 35d. or 3s. a pound for letter mail and 3d. for printed matter. Tenders for service under this plan were invited, the bidders to submit logs for the last three voyages of all ships offered for the mail service. This notice specified Queenstown as the point of departure, which drew representations from the North German Lloyd agents, indorsed by Southampton, London, and South of England interests, that Southampton and the North German

³² Report of British Postmaster General, 1877.

³³ Parliamentary Paper No. 92, vol. 46, 1878.

Lloyd should be included in this consideration. Tenders were not received from a sufficient number of companies to guarantee satisfactory service, whereupon the Cunard, White Star, and Inman companies jointly proposed a continuation of both the old rate of pay and the 12-month contract, which was accepted by the post office.

In 1886 the agreement with the Cunard, Inman, and White Star Cos. expired and bids were again submitted but so framed that mail to New York could not be carried by any other line. This offer was declined by the post office and a 3-month agreement was concluded with the Inman, Guion, and North German Lloyd Cos.

Following this an agreement was made with the Cunard and White Star Lines for two services a week from Queenstown.³⁴ The Cunard and White Star contracts were concluded on May 3, 1887, effective from March 1, 1887, to March 31, 1888, to be continued thereafter subject to 12 months' notice. The contractors were paid 3s. (\$0.73) a pound for letter mail and 3d. (\$0.06) a pound for other mail. This agreement remained in force until August 1, 1899, when another agreement was concluded, with flexible provisions that decreased the rate of pay as the volume of mail increased.

PERIOD FROM 1903 TO 1927

CONTRACT OF JULY 30, 1903

By the agreement of July 30, 1903, fixed annual payments for the service between Liverpool, Queenstown, and New York were again established. Under the agreements of 1899 the mail payments to the Cunard Co. increased from £58,000 (\$282,300) during the first year to £62,000 (\$301,700) during the last year preceding the concluding of the contract of July 30, 1903. In view of reasonable expectation of increase of mails the annual payment under the new contract was fixed at £68,000 (\$330,900), effective for 20 years beginning on the date of the first sailing of the second of two vessels to be built under provisions of another agreement with the same company.

Under the agreement of July 30, 1903, the company was to carry the mail at increased speed and was also to convey parcel-post matter in the amount of 100 tons measurement space in each direction each week without extra charge. Previously, parcel post had been separately paid for.

Events preceding the contract of 1903

The joint contract concluded between the British Admiralty, the Postmaster General, and the Cunard Steamship Co. on July 30, 1903, again marked a turning point for British speed supremacy in the North Atlantic. Passenger returns toward the end of last century had shown diminishing returns to British vessels and great increases to German vessels. The following table, prepared from the annual statements of the landing agent at Ellis Island, will illustrate the position of the two principal British companies as compared with two German companies. The American Line, under United States registry, was one of the most popular trans-Atlantic lines during the

³⁴ Report of the British Postmaster General, 1887.

period and held high place in the speed records due to the performances of the *City of Paris* and the *City of New York*.

TABLE 44.—PASSENGERS LANDED AT NEW YORK BY LEADING BRITISH AND GERMAN STEAMSHIP COMPANIES

Year	Cunard Line		White Star Line		North German Lloyd		Hamburg-American Line	
	Cabin passengers	Steerage passengers	Cabin passengers	Steerage passengers	Cabin passengers	Steerage passengers	Cabin passengers	Steerage passengers
1893.....	18,462	25,103	13,327	28,876	15,930	68,465	13,052	33,091
1894.....	18,362	19,175	11,520	20,898	12,049	19,927	9,594	18,463
1895.....	18,844	21,724	11,805	30,725	10,805	44,326	10,543	30,141
1896.....	17,999	20,681	11,607	21,220	10,921	38,034	12,173	32,280
1897.....	15,196	17,305	10,104	19,271	12,589	24,542	10,556	15,270
1898.....	16,692	20,463	10,322	20,764	15,794	32,205	8,056	20,092
1899.....	19,045	20,853	12,741	25,208	17,759	53,646	14,108	38,059
1900.....	20,000	22,751	14,948	29,370	23,350	64,698	23,279	65,384
1901.....	17,783	19,943	18,167	30,483	20,403	76,804	20,524	63,223
1902.....	16,308	23,650	18,402	40,225	24,588	81,074	20,106	84,295

A more serious element, however, was the fact that the new German vessels were no longer products of British shipyards but were turned out principally by the Vulcan Yard at Stettin. The loss of the North Atlantic speed records, while injurious to prestige, was not so serious to national economic welfare as were the possibilities of loss of construction of German ships and consequent loss of activity in the British shipbuilding industry. The British professional and technical press of the period criticized existing conditions severely but credited the enterprise of German owners, rather than the professional superiority of German shipbuilders, with the production of the efficient high-speed fleet, and charged British owners with the responsibility for the loss of the trans-Atlantic speed records. It is therefore of especial interest that the ultraconservative Cunard Co. should again become the medium through which British shipbuilding was to redemonstrate its resources in ship construction.

Influence of International Mercantile Marine

Organization of the International Mercantile Marine provided the occasion, and perhaps the fundamental reason, for the new contract with the Cunard interests. The International Mercantile Marine was a combination headed by J. P. Morgan, Bernard N. Baker, and Clement C. Griscom, of the American Line. This combination absorbed the Atlantic Transport Co. and the American, Red Star, Leyland, Dominion, and White Star Lines.

Both the North German Lloyd and the Hamburg-American Lines were threatened with absorption into the combine, but obtained instead a working agreement by which the International Mercantile Marine agreed not to call at German ports without permission from the German companies. In return the German companies agreed to support the combination in any rate war brought by new competitors. The German companies agreed to pay to the International Mercantile Marine 25 per cent of any surplus above 6 per cent required for divi-

dends to stockholders in the German companies. The International Mercantile Marine agreed to pay to the German companies any missing sum required to make up a 6 per cent dividend to the stockholders of the German companies.

The International Mercantile Marine contracted with the British Government to keep the White Star and certain other fleets under British nationality and control. The *Compagnie Générale Transatlantique*, being largely subsidized by the French Government, and considering its New York service as only a branch of its business, had little pressure brought on it to join the combine.

Considerable official concern arose as to the possibility of the Cunard Line joining the combination.³⁵ The result was that the Cunard Co. contracted as stated, under date of July 30, 1903.

Terms of the Cunard contract

Part I. Admiralty provisions.—The Admiralty and Board of Trade requirements under Part I of the contract of July 30, 1903, may be summed up as follows:

1. The Cunard Steamship Co. agreed to build two vessels of 24 to 25 knots speed according to plans and specifications approved by the Admiralty.

2. The Government acquired the right to purchase or hire these or any vessels owned by the company as per an agreed schedule.

3. The company agreed not to unduly raise freight charges or rates and not to give undue preference to foreigners.

4. Any vessel of 17 knots speed or above subsequently built by the company during the life of the agreement should have its plans approved by the Admiralty.

5. The company agreed to afford the Admiralty facilities for fitting armament on board and to give the Admiralty free storage in the company warehouses for Admiralty equipment.

6. The company agreed not to charter or hire any vessel, except to the Indian Government, without seven days' written notice to the Government.

7. All officers and 75 per cent of the crew were to be British subjects. All deck officers and not less than half of the crews of the three principal vessels in service were to be naval reservists. Failure to fulfill this provision carried a penalty of £60 per head for every person below this scale, to be deducted from the annual sum of £28,000 due the company under an agreement with the Admiralty dated October 24, 1902. This agreement was to continue in force until the two new vessels entered service.

8. To sell no vessel of 17 knots or above.

The Admiralty was to pay the company £150,000 (\$730,000) annually—£75,000 annually upon entry of the first vessel in service and £75,000 annually upon entry of the second vessel into service. (Clause 6.)

There was to be advanced to the company as a loan £2,600,000 (\$12,653,000) with which to build the ships. This constitutes the only instance of a direct public loan being granted to a British shipping company by the British Government.

³⁵ See Parliamentary Papers, Report on Steamship Subsidies, 1902.

The loan was secured by a mortgage upon the assets of the company. Interest charges were to be at the rate of $2\frac{3}{4}$ per cent per annum and interest was to begin on one-half of the total amount when the first vessel entered the service, irrespective of how and when the loan was advanced, and one-half upon entry of the second vessel into service, thus providing no interest charge on any sums advanced during the period of construction.

The loan was repayable in 20 annual installments beginning one year after the entry into service of the second ship.

The company was to issue one share of stock, valued at £20, to the Government.

Part II. Postal services.—Postal-service requirements were to comprise weekly sailings on Saturdays from Liverpool, under a fixed annual payment of £68,000 (\$330,900) as previously outlined; 100 measurement tons (4,000 cubic feet) of parcel-post matter were to be carried free. Any excess over this amount was to be paid for at the rate of 26s. 3d. (\$6.39) per 40 cubic feet.

Part III. General provisions.—Part III of the contract contained various general understandings. The fleet considered as included in the agreement consisted of 17 vessels of 110,782 tons at an agreed-upon value as of September 29, 1902, of £1,990,550 (\$9,687,000).

In case of purchase of any vessel by the Admiralty the purchase price was to be the value of the vessel on the date of notice of intention of purchase plus 10 per cent.

Right to hire the vessels was governed by the following schedule:

Rate per gross ton per month if Admiralty provided and paid crew: First four months of each period of hire.—Speed of vessel above 22 knots per hour, 25s. (\$6.08); 20 to 22 knots, inclusive, 20s. (\$4.87); 17 up to 20 knots, 20s. (\$4.87); under 17 but above 14 knots, 17s. 6d. (\$4.26). For subsequent period.—Speed of vessel above 22 knots per hour, 25s. (\$6.08); 20 to 22 knots, inclusive, 20s. (\$4.87); 17 up to 20 knots, 17s. 6d. (\$4.26); under 17 but above 14 knots, 15s. (\$3.65).

Rate per gross ton per month if company provided and paid crew: First four months of each period of hire.—Speed of vessel above 22 knots per hour, 30s. (\$7.30); 20 to 22 knots, inclusive, 24s. (\$5.84); 17 up to 20 knots, 24s. (\$5.84); under 17 but above 14 knots, 20s. (\$4.87). For subsequent period.—Speed of vessel above 22 knots per hour, 30s. (\$7.30); 20 to 22 knots, inclusive, 24s. (\$5.84); 17 up to 20 knots, 21s. 6d. (\$5.23); under 17 but above 14 knots, 17s. 6d. (\$4.26).

The articles of association of the Cunard Co. were so altered as to comply with the requirements of guaranty of British nationality and protection of the equity of the Government. Elaborate safeguarding against stock transfer to foreign ownership was included. The second schedule stated: "It is to be regarded as a cardinal principle of the company that it is to be and remain under British control." Under this requirement it was specified that no foreigner should be qualified for a principal officer in the company, such officers numbering 11, from general manager to masters and deck and engine watch officers.

Speed requirements

The Admiralty laid down the proposition that there must be no compromise with speed. The ships were required to make $24\frac{1}{2}$ knots

in moderate weather. If they made only 23½ knots, the payment was to be reduced according to the following language:

* * * If either of the said two new steamships referred to in clause 3 hereof, or any vessel substituted therefor, shall not before such vessel sails on her first voyage be proved to the reasonable satisfaction of the Admiralty to be capable of maintaining a minimum average ocean speed of 23½ knots an hour in moderate weather, then the special value of such vessel to the Admiralty, so far as regards speed, shall be deemed not to exist, and the annual payment of £150,000 shall be reduced to such an amount as in default of agreement may be determined by arbitration by an arbitrator appointed by the Lord Chief Justice.

The Admiralty had previously appointed a committee on mercantile cruisers to investigate and report upon technical matters. The committee reported in December, 1902, substantially as follows:

1. Nearly all large vessels of high speed were structurally strong enough to carry and fight 4.7-inch guns.
2. They were subdivided up to existing Admiralty standards.
3. They could be fitted with steering gear below the water line without difficulty and at an expense of between £500 to £1,000 per ship per annum, including an excess of first cost, depreciation, and upkeep.
4. The principle of an annual Admiralty payment was adopted.
5. Payment was to be made on the basis of a speed-cost scale worked out for 20 to 25 knots, as follows:

TABLE 45.—SPEED-COST SCALE OF BRITISH SUBSIDY PAYMENTS

Average ocean speed	First cost, building, etc.	Indicated horsepower	Annual subsidy	
			Sterling	Equivalent in United States currency ¹
20 knots.....	£350,000	19,000	£9,000	\$43,800
21 knots.....	400,000	22,000	19,000	92,465
22 knots.....	470,000	25,500	40,500	197,100
23 knots.....	575,000	30,000	67,500	328,490
24 knots.....	850,000	40,000	100,700	489,050
25 knots.....	1,000,000	52,000	149,000	725,110
26 knots.....	1,250,000	68,000	204,000	992,765

¹ Converted at the par rate of \$4.8665.

According to this scale it was estimated that a 25-knot ship would cost nearly three times as much as a 20-knot ship; would require nearly three times the power and sixteen times the subsidy of a 20-knot ship.

Engineering problems

While ordinary engineering details and development have no place within the limits of this study, the extraordinary problems which arose in respect of the construction of the *Lusitania* and the *Mauretania* under this contract, and their solution and results, are entitled to mention as effects of a prescribed cause.

The British Government advanced \$12,600,000 to build the two ships in effect as auxiliary cruisers, or \$6,300,000 per ship. The Government agreed to advance \$364,000 per ship per year for 20 years, a total of \$7,280,000 per ship for the 20-year period, to offset the high

cost of operating them. This constituted a direct Admiralty subsidy, with no requirements except available speed and constant condition for speed. It was not considered as a retainer for the right to use the ships by the Admiralty, a policy which had for some time been declared of no interest inasmuch as the right of the state to requisition vessels is inherent with the registry of a vessel or, under all circumstances, a prerogative of the Crown.

Within six months after entering service these ships began to show how accurately they had been designed and equipped for speed. Thus, by June, 1908, the *Lusitania* had covered a 2,889-mile course in 4 days 20 hours 22 minutes, at an average speed of 24.83 knots, while the *Mauretania* did the course of 2,890 miles in 4 days 20 hours 15 minutes at an average speed of 24.86 knots, a difference of 7 minutes in time and 0.03 knot in speed. Significant of the coming possibilities of the *Mauretania* was the fact that on this voyage the ship used only three propellers, the fourth having been injured. During the first six months of 1909 the *Mauretania* made 10 successive passages in which the average ocean speed was 25.42 knots and the average of the best day's run was 26.03 knots.

PERIOD FROM 1928 TO 1932

CUNARD AND WHITE STAR CONTRACTS OF JUNE 27, 1928

The current postal contract between the British Postmaster General and the Cunard Steamship Co. for mail services between Southampton and New York was concluded on June 27, 1928, and is effective for a term of five years from November 16, 1927, continuing thereafter from year to year subject to 12 months' notice of change by either party.

This contract supersedes that part of the general agreement of July 30, 1903, amended by a supplemental agreement of December 20, 1917, between the Admiralty, the Board of Trade, and the Postmaster General, which provided for the construction of the *Lusitania* and the *Mauretania*. (See p. 240.) The Admiralty and the Board of Trade did not wish to renew the original agreement, and the new contract is consequently limited to the conveyance of mails, but includes certain clauses relating to the requirements of the Admiralty and the Board of Trade which it is now customary to insert in such contracts.

Terms of Cunard contract

Payments.—The present contract is to be carried out by the Cunard Steamship Co. for a consideration of £100,000 (\$486,700) annually. The payment under the old contract was £68,000 (\$330,900), reduced under a supplemental agreement to £65,390 (\$318,200).

The increase is due to the large gain in the volume of mail, and increase or decrease in payments is provided in addition to the £100,000 specification by the clause: "Subject to variation by half the ascertained percentage of increase or decrease in the event of the volume of mail traffic increasing or decreasing by 8 per cent or more." This means that if the volume of mails should fall by 8 per cent the Postmaster General may call for a reduction in payment of "half the ascertained percentage," or 4 per cent, £4,000. By the same pro-

vision the company would be entitled to an additional £4,000 per annum if the mails rose 8 per cent in volume. For the year 1930-31 the payment to the Cunard Co. was £92,307.

Regularity and speed.—Regularity of sailings and speed requirements under the contract are covered by the following stipulations:

“Each mail ship shall on the day and at the hour above mentioned (noon on Saturdays) put to sea from Southampton.”

“Each mail ship shall be capable of maintaining an average sea speed of 20 knots per hour.”

Carriage of mails.—In general the weekly services are from Southampton to New York via Cherbourg. Mails are to be carried on any company steamer to America, and comprise all mails, including all parcels of all weights. Formerly parcels weighing more than 11 pounds were separately paid for.

In the language of the contract, the company shall carry (a) “all mails which the Postmaster General or any of his officers or agents shall from time to time and at any time require to be so conveyed,” and (b) “all mails which the French postal authorities or any of their officers or agents shall in pursuance of any agreement with the Postmaster General or any convention for the time being in force from time to time and at any time require to be conveyed.”

Similar provisions are made for the Irish mails; also “from the United States to the United Kingdom all parcel mail which the Postmaster General shall require in agreement with the United States postal authorities.” The company may not accept dominion or foreign mail except with the consent of the Postmaster General, and all mail carried shall be deemed as having been received from the Postmaster General.

Nationality requirements.—A general provision requires the master and officers and at least three-fourths of the crew to be British subjects on the vessels which may come under the contract. The chairman and managing director and majority of the board of directors of the contracting company are required to be British subjects.

Admiralty provisions.—The general naval-reserve provisions for the Admiralty under the contract are covered by the following stipulations:

1. Such of the mail ships as may be from time to time agreed between the Admiralty and the contractor shall be stiffened to carry an armament of guns not exceeding 6 inches in caliber, the cost of such stiffening being borne by the Admiralty.

2. In such of the mail ships as shall be built by the contractor in the future, endeavor will be made to protect the steering gear.

3. The contractor will encourage the practice of the Admiralty system of signaling (both visual and wireless) with men-of-war signal stations and merchant vessels, and in the case of visual signaling will furnish the contractors' ships with a modern equipment of lamps and apparatus.

4. The contractor will cooperate in the distribution of naval intelligence.

5. The contractors will encourage the Royal Naval Reserve movement among the officers and men on board the contractors' ships.³⁰

³⁰ Post Office and Telegraph (Money) Bill, 1928, Paper 95, Great Britain, House of Commons, Sess. Papers, vol. 19, 1928.

Terms of White Star contract

The present contract between the British Government and the Oceanic Steam Navigation Co. (White Star Line) was concluded on June 27, 1928, and supersedes a contract of August 26, 1914, which had been renewed from year to year at a fixed annual payment of £72,000 (\$350,400), increased to £78,000 (\$379,600) in 1925.

The contract is effective for five years from November 16, 1927, renewable annually, subject to 12 months' notice by either party. In other respects the contract is identical with the Cunard contract in the same service (Southampton–New York), the annual payment being the same—£100,000.³⁷

In July, 1930, the annual payment was increased to £104,000 (\$506,115), and for the financial year 1930–31 the payment made to the White Star Co. under the contract was £100,516 (\$489,160).

WEST INDIES SERVICES

The origin of what is now the central unit of one of the largest shipping organizations in the world, the Royal Mail Steam Packet Co., lay in the establishment of subsidized steam services from the United Kingdom to the West Indies. The granting of the original charter, the organization of the company, and the services established rested on a contract with the British Government.³⁸

The original subsidies were sufficient to meet large losses in the initial operations. Commercial results soon made the venture a profitable undertaking; for a considerable period, however, the company was obliged to continue expansion of services and to supply larger and faster vessels. From 1874 payments were sharply reduced, until they comprised only remuneration for mail actually carried. Contracts were again concluded at relatively low annual payments. In 1917 the contract system ceased entirely for the Royal Mail West Indies operations, except about £10,000 (\$48,665) annually for carrying parcel post.

In the wide ramifications of this organization some of the affiliated companies operate subsidized services for the home Government. Thus the White Star Line, purchased in 1928, operates a mail service to New York for £100,000 (\$486,650) annually (increased to £104,000 in July, 1930), and the African Steamship Co. and British & African Steam Navigation Co. are paid a total of some £15,000 (\$73,000) annually for their services. Some of the affiliated companies receive mail subsidies from colonies.

FOUNDING OF ROYAL MAIL STEAM PACKET CO.

The Royal Mail Steam Packet Co. is the central organization in a combination of more than 20 British shipping companies con-

³⁷ *Idem.*

³⁸ "In the earlier days of the West Indian colonies, the mails were in the direct charge of the British Government, and gunbrigs conveyed the letters to and from the islands. These vessels proceeded under sail, and when steam propulsion began to be applied to ocean transit it became a question with the Government how best to take advantage of this new development. The question was solved by accepting the proposal of some enterprising merchants to form a company for the purpose of taking the responsibility off the shoulders of the Government in consideration of a subsidy." *History of the Royal Mail Steam Packet Co.*, R. S. M. P. Pocket Diary, 1910, p. 31.

trolling the operations of about 2,000,000 tons of shipping. An approximate balance sheet as of December 31, 1930, carried the book value of the Royal Mail fleet and the fleets which are 100 per cent subsidiaries of the parent company at £9,371,734 (\$45,607,545), and an estimated going-concern value of £6,000,000 (\$29,199,000). Other properties and investments in other companies brought the total book value up to £23,526,151 (\$114,490,015) and the going-concern value up to £13,965,873 (\$67,964,920). Among the principal subsidiaries are the White Star Line (Ltd.), Oceanic Steam Navigation Co. (Ltd.), Aberdeen Commonwealth Line (formerly Australian Government service), Pacific Steam Navigation Co. (Ltd.), Union-Castle Mail Steamship Co., Elder, Dempster & Co., Shaw, Savill & Albion Co., and the British & African Steamship Co.

The original charter of the Royal Mail was granted September 26, 1839. The company took its title as a result of the activities for general postal reforms then being conducted in England, as well as elsewhere. The purpose of founding the company with a relatively large capital, £1,500,000 (\$7,300,000), was to insure a more rapid transport of mails to the colonies than had been the practice in connection with Admiralty vessels. It was thought at the time that with closer mail service between the United Kingdom and the West Indies British interests in the West Indian colonies could be greatly expanded. Therefore, established regularity was sought, in the language of the charter, through "regular succession of vessels," such vessels to be specially employed for the carriage of mails. The charter expressed the opinion that it would be "for the advantage of the public services that * * * vessels should be furnished through the medium of merchants and other persons with capital."

ORIGINAL CONTRACT OF 1840

The first contract between the British Admiralty and the Royal Mail Steam Packet Co. was concluded by negotiation on March 20, 1840. So long as the responsibility for contract services rested with the Admiralty renewals of the original contract were made under process of negotiation and not under specifications for public bids. Not until after the Postmaster General assumed responsibility for contract services (see p. 232) were the services advertised for competitive bidding.

The contract of March 20, 1840, was to become operative on December 1, 1841, for 10 years from the day the first vessel sailed with mail. Upon expiration of the contract it was subject to continuation until 12 months' notice of termination had been given.

TERMS OF THE CONTRACT

Not less than 14 steam vessels (of 400 horsepower or above) and 4 sailing vessels were to be provided by the company under the stipulations of the original contract. The steamers were to be constructed under naval inspection and were to be capable of mounting the largest guns then used in the navy. Vessel equipment was to be kept abreast of developments during the life of the contract. Sailings were to be twice a month from channel ports to Barbados by way of Jamaica and Cuba to Mobile, with branch services to Tampico and

Vera Cruz and from Habana to New York and Halifax, such routing subject to alteration by the Admiralty.

The annual payment to the company was £240,000 (\$1,168,000). Additional payments were to be made provided, if—

1. Insurance rates rose above £6 6s. per cent due to causes of a public or national character;
2. Coal freights rose to more than £1 2s. 6d. (\$5.47);
3. Insurance on coal rose above £2 2s. per cent.

Such increases were not to exceed £60,000 per annum.

The original mileage to be covered by the company in these services was 684,816, which would result in a subsidy rate of \$1.70 per mile sailed. During the first year of operation the company sustained a loss of £79,790 (\$388,300), whereupon the Government reduced the required mileage to 392,973, by which the relative subsidy was increased to nearly \$3 per mile. The net cost to the Government, as represented by the difference between the cost of the subsidy and the mail revenues, amounted to about £180,000 (\$876,000) during the first year of operation.⁹⁹

COMPANY INVESTMENT IN PANAMA RAILROAD

By the time the first contract had expired the economic forces which were to stimulate the immense expansion of the Royal Mail had begun to be effective. Trade increased to such an extent that the company soon declared dividends, which rose from 30 shillings (\$7.30) per share in 1844 to £2 (\$9.73) in 1848. The gold discovery in California and the consequent stimulation in both cargo and passenger movement to the Isthmus of Panama were factors favorable to the Royal Mail Co. Again, the investigation of routes to Australia resulted in the House of Commons recommending the Panama route in 1849. This, in addition to the Panama Railroad, which was then projected in the United States, placed the Royal Mail Co. in a highly strategic position in so far as its future fortunes were concerned. The company advanced £25,480 (\$124,000) toward the building of the Panama Railroad.

CONTRACT OF 1852

In 1852 the contract was renewed. The subsidy was increased to £270,000 (\$1,314,000) and the mileage to 547,296. The longer mileage was caused by the inauguration of a branch line to Brazil. By this contract the original speed requirement of 8 knots was raised to 9 knots and met through the construction of five new vessels of 2,250 gross tons and 800 horsepower each.

In 1857 this contract was altered. The Royal Mail amalgamated with the European & Australian Mail Co. for the purpose of carrying mail to Australia by way of the overland route through Egypt. This project proved a failure. Another requirement under the revised contract was the acceleration of the mails from England to Rio de Janeiro from 62 to 55 days. The company was required to provide three more vessels of 3,000 tons and 800 horsepower, and a fourth

⁹⁹ Lindsey, *History of Merchant Shipping*, vol. 4, p. 296.

small vessel with which to speed up the mails from Rio de Janeiro and the River Plate. By means of this revision the mail time from England to Panama was reduced from 59 to 42 days.

CONTRACT OF 1864

In 1864 the contract was renewed and the subsidy reduced to £172,914 (\$841,485), while speed requirements were raised to 10½ knots.

In 1866 it was agreed that each alternate sailing should proceed direct from St. Thomas to Colon without stop at Jamaica, thus reducing the time still more between England and Panama.

In 1868 a change from paddle-wheel to screw-propeller propulsion was decided upon. In undertaking this change the company requested and received an extension of its contract until 1874. In return for this concession the Government was to receive one-half of all profits above 8 per cent, this provision being by way of guaranty that the proceeds of subsidies should not develop unreasonable profits.

CONTRACT OF 1874

In 1874, when contract services had come under the direct supervision of the Postmaster General, public tenders were called for under published specifications. Services in the Atlantic had by this time developed to a point where competitive bidding would result in reasonable expenditures for regularity of service for the mails. The Royal Mail Steam Packet Co. bid in the service for £84,750 (\$412,435), or one-half the previous contract for practically the same service requirements. This amount was increased by £2,000.

In 1878 the annual subsidy was reduced to £80,000 (\$389,320); in 1890 it was increased to £85,000 (\$413,650), when the service was placed on a fortnightly basis. From 1895 on the annual subsidy was £80,000 (\$389,320).

FINAL PRE-WAR CONTRACT

The final contract between the British Government and the Royal Mail Steam Packet Co. was concluded on November 4, 1911. Preceding this and following the contract of 1895 (which was renewed from July 1, 1900, to June 30, 1905) the mails to the West Indies were carried at ordinary ship-letter rates until June 6, 1907, when a contract, terminable upon six months' notice, was concluded for a total payment on a weight basis of about £20,000 (\$97,300) annually.

The contract of November 4, 1911, was effective retroactively from January 18, 1911, to August 9, 1917, and was to end concurrently with other contracts between the company and Crown agents for the colonies. For this service the company was to receive £62,900 (\$306,100), less receipts from sea postage. The net cost was reduced by contributions to the home Government in a total amount of £23,000 (\$111,900) jointly by Trinidad, British Guiana, and Barbados.

In 1917 the contracts were not renewed, partly because the war interfered with the performance of voyages but mainly because the company took the position that the obligations imposed on it by the contract involved trouble and expense for which the subsidy was inadequate compensation. The company is now paid according to

the quantity of mail carried to the West Indies at the rates of sea postage; contract payments are limited to parcel-post services only.

The Royal Mail Steam Packet Co. is no longer under any contract service arrangement with the home Government except in so far as the small parcel-post contract may apply. Through acquisition of the White Star Line, the Royal Mail interests are in position to maintain connecting services from New York to Halifax and to the West Indies, making the trans-Atlantic passage by high-speed White Star vessels.

GOVERNMENT GUARANTY OF ROYAL MAIL GROUP LOANS

The Royal Mail Steam Packet Co. and associate companies and subsidiaries have availed themselves to a considerable extent of the provisions of the British trade facilities acts of 1921-1926 and the loans guaranty act of Northern Ireland. (See pp. 256-261.) The loans obtained by these interests under above acts are stated in Table 46.

TABLE 46.—LOANS OBTAINED BY ROYAL MAIL STEAM PACKET CO. AND ASSOCIATES UNDER TRADE FACILITIES ACTS AND LOANS GUARANTY ACT

Company	Total loans		Trade facilities act			Loans guaranty act, net loans ²
	Sterling	Equivalent in United States currency ¹	Original authorization	Subsequent reduction	Net loans	
Royal Mail Steam Packet Co.	£1,795,000	\$8,735,400				£1,795,000
Royal Mail Steam Transport Co.	1,900,000	9,246,300	£2,300,000	£400,000	£1,900,000	
Union Castle Mail Steamship Co.	1,000,000	4,866,500	1,000,000	600,000	400,000	600,000
Pacific Steam Navigation Co.	250,000	1,216,600	850,000	850,000		250,000
Oceanic Steam Navigation Co.	3,025,000	14,721,200	1,825,000		1,825,000	1,200,000
British & African Steamship Co.	1,400,000	6,813,100	900,000	140,000	760,000	640,000
Shaw, Savill & Albion Co.	675,000	3,284,900	675,000		675,000	
H. & W. Nelson (Ltd.)	1,500,000	7,299,700				1,500,000
King Line (Ltd.)	800,000	3,855,200				800,000
Olsen Line (Ltd.)	395,000	1,922,300				195,000
Lamport & Holt	300,000	1,459,950	200,000		200,000	
Coast Lines (Ltd.)	300,000	1,459,950	300,000	300,000		300,000
Total	13,340,000	64,919,100	8,350,000	2,290,000	6,060,000	7,280,000

¹ Converted at the par rate of \$4.8665.

² These sums are the amount of the original authorizations except for the Pacific Steam Navigation loan, which, authorized for £1,000,000, underwent a subsequent reduction of £750,000.

³ Original authorization, £1,000,000.

SUMMARY OF WEST INDIES OPERATIONS

The following summary of the Royal Mail Steam Packet Co.'s operations in the West Indies is taken from a report prepared by Vice Consul Herman C. Vogenitz, Barbados, August 20, 1930. Variation in dates or amounts from those already given may be accounted for on the basis of budget expenditures and colony contributions, the figures already given being based entirely upon contract text.

TABLE 47.—ROYAL MAIL CO. CONTRACTS FOR WEST INDIES SERVICES

Period	Duration of subsidy, years	Annual amount		Trans-Atlantic speed, knots
		Sterling	Equivalent in United States currency ¹	
1842-1845.....	4	£240,000	\$1,167,960	8 to 8½
1846-1850.....	5	240,000	1,167,960	9
1851-1863.....	13	270,000	1,313,955	9 to 10
1864-1874.....	11	172,914	841,485	10½
1875-1879.....	5	86,750	422,170	11
1880-1885.....	5½	80,000	389,320	11½
1885-1890.....	5	90,000	437,985	12
1890-1895.....	5	85,000	413,650	13
1895-1900.....	5	80,000	389,320	13
1900-1902.....	2	80,000	389,320	13
1902-1905.....	3	85,000	413,650	13 and 14
1905-1911.....				
1911-1915.....	5	88,000	428,250	

¹ Converted at the par rate of \$4.8665.

From 1905 to 1911 there was no trans-Atlantic contract (except on a poundage basis). In 1907 a 10-year contract for an inter-colonial service was signed, the subsidy being £25,000 (\$121,700), payable half by the Imperial Government and half by the colonial government. It is included in the £88,000 shown in Table 47 as payable in respect of the years 1911-1915.

The West Indian contribution to the trans-Atlantic and inter-colonial subsidies under the last two contracts was as follows: Antigua, 1902-1905, £1,000; 1911-1915, £879; Barbados, 1902-1905, £4,000; 1911-1915, £4,000; British Guiana, 1902-1905, £4,200; 1911-1915, £7,700; Dominica, 1902-1905, £450; 1911-1915, £779; Grenada, 1902-1905, £1,000; 1911-1915, £1,260; Jamaica, 1902-1905, £2,100; 1911-1915, nil; Montserrat, 1902-1905, £200; 1911-1915, £163; Nevis and St. Kitts, 1902-1905, £979; 1911-1915, £879; St. Lucia, 1902-1905, £1,000; 1911-1915, £1,260; St. Vincent, 1902-1905, £450; 1911-1915, £580; Tortola, 1902-1905, £50; 1911-1915, nil; Trinidad, 1902-1905, £4,600; 1911-1915, £18,000; a total for 1902-1905 of £19,600 (\$95,400) and for 1911-1915 of £35,500 (\$172,800).

Of the 1911-1915 subsidies the following amounts were for the trans-Atlantic service: Trinidad, £16,300; Barbados, £4,000; British Guiana, £2,700.

CENTRAL AND SOUTH AMERICA SERVICES

At about the same time that the Royal Mail Steam Packet Co.'s operations to the West Indies began, another British service was organized to trade in the Pacific on a contract basis between Central and South America. This was the Pacific Steam Navigation Co., now a member of the Royal Mail Steam Packet organization.

The original charter of the enterprise that was later to become the Pacific Steam Navigation Co. was granted on February 17, 1840. The original capital was limited to £250,000, of which £94,000 was paid up; £72,000 of the original capital was lost during the first five years, due primarily to the cost and difficulty of obtaining fuel supplies.

The postal contract for this undertaking was concluded in 1845, for £15,000 (\$73,000) annually. Under this contract the company provided monthly sailings for a payment of £20,000 (\$97,000) annually between Callao and Valparaiso.

CONTRACT OF 1850

The contract of 1845 was extended in 1850 by a contract under which the company was required to build six vessels of 170 horsepower. This was later amended to four 1,000-ton vessels of 350 horsepower. The annual payment under this contract was £25,000 (\$121,700) at the rate of 3s. 10d. (\$0.93) per mile.

In 1853 the company petitioned the Government for higher subsidies, owing to losses sustained on the fuel consumption of the large ships. This request was refused, but a subsequent temporary arrangement was made whereby the company was allowed to substitute 100-horsepower vessels of 400 tons, which were deemed suitable to the passenger trade and the mails at 10 knots speed. This enabled them to connect with the British mails carried by the Royal Mail to Panama. The subsidies were increased by £5,000 for the increased service.

Lindsey records in his History of Merchant Shipping that the Pacific Steam Navigation Co. installed compound engines in its vessels from 1856 onward, and that in this respect the company was not only among the first to adopt this type of engine but for 14 years was almost alone in this respect. The primary trouble which the company had encountered, that of fuel expense and supply, was greatly reduced by this measure.

CONTRACT OF 1865

In 1865 the charter of the company was extended to include operations not only on the Pacific coast of South America but also between the west and east coasts of South America to the River Plate, including the Falkland Islands and such other places in North and South America or other foreign ports as the company desired. This enabled the company to establish direct services between the United Kingdom to the west coast of South America by way of the Strait of Magellan. The company's capital was increased to £2,000,000, and in May, 1868, a 2,000-ton vessel of 450 horsepower was sent on the first monthly voyage. The undertaking was successful. Sailings were increased to semimonthly in 1870 and to three times a month in 1871. The capital was increased to £3,000,000 in 1871 and weekly services were instituted.

The capital was again increased, this time to £4,000,000, which led to charges of overexpansion and also to reduced return on the capitalization.

CONTRACT OF 1873

On January 1, 1873, a poundage contract came into effect which paid the company approximately £17,000 (\$82,700) per year. The post-office estimates state that there was no loss to the Government under the contract, which was renewed in 1878.

Mail payments had risen to above £23,000 (\$111,900) annually by 1900, when a 10-year contract was concluded for £32,500 (\$158,200) annually for the following services:

1. Once every two weeks from Liverpool to Callao via France, Lisbon, Rio de Janeiro, Montevideo, Valparaiso, with calls at Stanley in the Falkland Islands every four weeks;
2. Once every four weeks from Stanley to Liverpool, with calls on the east coast of South America;
3. Once every two weeks from Panama to Valparaiso;
4. Once every two weeks from Panama to Guatemala.

The contract provided that if during its life a canal should be completed between the Atlantic and Pacific Oceans the company should convey the mails on vessels transiting the canal.

Admiralty clauses in this contract gave the Admiralty the right to hire or purchase the company vessels. Government passengers in military service were to be carried at 25 per cent reduction from the regular tariffs and all other Government passengers at 15 per cent reduction. This contract service expired during the World War and was not renewed, the present arrangement being mail pay based on the amount of mail carried.

EAST COAST OF AFRICA SERVICES

The British postal-contract services to the east coast of Africa were effective for more than 40 years and, though representing no great outlay of public funds, provide an example of commercial communications by sea wherein the encouraging effect on shipping was not considered nor was it the objective.

The British mail service to Zanzibar was established in 1873, partly with the object of providing regular postal service, but even more so for the purpose of facilitating communication with the British naval and consular establishments on the east coast of Africa and as a means of affording a useful auxiliary in the suppression of the slave trade in addition to the blockade then maintained by the British Navy.⁴⁰ The results which followed the establishment of the mail service between Aden and Zanzibar justified both its inception and maintenance and, by facilitating the supervision of consular officers and aiding in the development of legitimate forms of trade, largely contributed to the suppression of the slave trade.

From 1873 to December, 1882, the contract services between Aden and Zanzibar cost annually £10,000 (\$48,665). From 1882 to September 25, 1888, the annual expense was £7,950 (\$38,700). The contract was then extended for one year in view of the political changes taking place on the east coast of Africa.

Delimitation of the spheres of influence of the United Kingdom and Germany and subsequent political changes on the east coast of Africa rendered desirable the maintenance and improvement of communication under the British flag, while the revival of the power of slave traders and disturbances on the coast, together with the unsettled state of affairs in Zanzibar, imposed on the British Government the necessity of maintaining a larger fleet than had been on

⁴⁰ Treasury Minute of Apr. 14, 1890. Parliamentary Paper No. 122, vol. 41, 1890.

the station for many years, and of continuing surveillance of the coast by consular authorities. Accordingly tenders were again invited and a contract concluded with the British India Steam Navigation Co., this time for a direct service from London to Zanzibar once every four weeks in each direction, at 10 knots, free transportation of consular officers, and for an annual payment of £16,000 (\$77,900). This contract was effective from November 2, 1889, to November 2, 1891, terminable on 12 months' notice thereafter.

Upon expiration of the direct London-to-Zanzibar contract, the service was again limited to the district between Aden and Zanzibar and Mombasa with 7½-knot vessels for £9,000 (\$43,800) annually. This contract remained in force until the World War.

BUDGET ESTIMATES FOR CONTRACT SERVICES, 1900-1930

In order to show the continuity of the British foreign-mail system under the changes wrought by the World War the British postal estimates for the period 1901 to 1931 are given below in Table 48. All of the estimates do not refer to formal mail contracts; some cover only parcel post.

TABLE 48.—BRITISH FOREIGN AND COLONIAL MAIL SUBSIDY ESTIMATES

1. UNITED KINGDOM TO (a) ASIA AND AUSTRALIA AND (b) HONG KONG VIA CANADA

Year ¹	(a) Total budget estimates for services to Asia and Australia		Brindisi to Bombay via Aden, Shanghai, Colombo, Singapore, Hong Kong, Fremantle, etc.	Naples to Adelaide and United Kingdom to New Zealand ⁴	(b) Total budget estimates for services to Hong Kong via Canada	
	Sterling	Equivalent in United States currency ²			Sterling	Equivalent in United States currency ²
1900-1901.....	£415,000	\$2,019,600	£245,000	£170,000	£60,000	\$291,990
1901-2.....	415,000	2,019,600	245,000	170,000	60,000	291,990
1902-3.....	415,000	2,019,600	245,000	170,000	60,000	291,990
1903-4.....	415,000	2,019,600	245,000	170,000	60,000	291,990
1904-5.....	415,000	2,019,600	330,000	85,000	60,000	291,990
1905-6.....	340,000	1,654,610	340,000	-----	60,000	291,990
1906-7.....	340,000	1,654,610	340,000	-----	17,000	82,730
1907-8.....	293,500	1,292,325	261,000	2,500	60,000	291,990
1908-9.....	311,000	1,513,480	305,000	6,000	45,000	218,990
1909-10.....	310,000	1,508,615	305,000	5,000	45,000	218,990
1910-11.....	310,000	1,508,615	305,000	5,000	45,000	218,990
1911-12.....	308,500	1,501,315	305,000	3,500	45,000	218,990
1912-13.....	309,700	1,507,160	305,000	4,700	45,000	218,990
1913-14.....	310,400	1,510,560	305,000	5,400	45,000	218,990
1914-15.....	311,500	1,515,915	305,000	6,500	-----	-----
1915-16.....	309,500	1,506,180	305,000	4,500	-----	-----
1916-17.....	165,000	802,975	160,000	5,000	-----	-----
1918-20.....	300,000	1,459,950	295,000	5,000	-----	-----
1920-21.....	300,000	1,459,950	295,000	5,000	48,000	87,600
1921-22.....	307,000	1,494,015	295,000	12,000	46,000	223,860
1922-23.....	306,000	1,489,150	295,000	11,000	46,000	223,860
1923-24.....	306,000	1,489,150	295,000	11,000	46,000	223,860
1924-25.....	304,000	1,479,415	295,000	9,000	46,000	223,860
1925-26.....	304,000	1,479,415	295,000	9,000	46,000	223,860
1926-27.....	323,000	1,571,880	305,000	18,000	45,000	316,325
1927-28.....	333,500	1,622,975	315,000	18,500	45,000	316,325
1928-29.....	348,500	1,695,975	330,000	18,500	42,000	301,725
1929-30.....	365,000	1,776,275	345,000	20,000	44,000	311,450
1930-31.....	367,000	1,786,000	347,000	20,000	44,000	311,450

¹ Data not procurable for the years 1916-17 and 1917-18.

² Converted at the par rate of \$4.8665.

³ Naples to Adelaide, 1900-1901 to 1904-5; service between the United Kingdom and Adelaide, from 1907-8 onward.

⁴ Canada parcel post.

TABLE 48.—BRITISH FOREIGN AND COLONIAL MAIL SUBSIDY ESTIMATES—CON.

2. UNITED KINGDOM TO NORTH, CENTRAL, AND SOUTH AMERICA AND WEST INDIES

Year ¹	Total budget estimates for services to the Americas ²		United States	Brazil	Chile	West Indies (including Bermuda and Jamaica) and Central America
	Sterling	Equivalent in United States currency ³				
1900-1901	£241,450	\$1,175,015	£121,000	£11,000	£25,900	£81,300
1901-2	252,850	1,230,500	125,000	12,000	32,500	81,100
1902-3	252,640	1,229,475	125,000	11,500	32,500	81,390
1903-4	270,327	1,315,645	136,000	10,500	32,000	89,577
1904-5	277,100	1,348,500	145,000	11,500	32,000	86,350
1905-6	278,450	1,355,075	145,000	12,500	32,000	86,700
1906-7	193,400	941,180	145,000	12,500	32,000	1,900
1907-8	193,450	941,425	145,000	12,500	32,000	1,950
1908-9	206,760	1,006,200	141,500	12,500	32,000	18,760
1909-10	208,100	1,012,720	141,500	13,000	32,000	19,600
1910-11	210,300	1,023,425	141,500	15,000	32,000	19,800
1911-12	265,850	1,293,760	146,000	20,000	32,000	65,850
1912-13	267,350	1,301,060	146,000	21,000	32,000	66,350
1913-14	267,450	1,301,545	146,000	21,000	32,000	66,450
1914-15	270,280	1,315,320	146,000	22,000	34,500	65,750
1915-16	258,450	1,257,750	140,000	17,000	34,500	64,950
1916-19	153,850	748,710	140,000	10,000	-----	3,850
1919-20	143,850	700,050	140,000	-----	-----	3,850
1920-21	154,400	751,385	140,000	10,000	-----	4,400
1921-22	158,100	769,400	140,000	14,000	-----	4,100
1922-23	158,200	769,880	140,000	14,000	-----	4,200
1923-24	159,700	777,180	140,000	14,000	-----	5,700
1924-25	175,200	852,610	140,000	28,000	-----	7,200
1925-26	168,500	820,000	140,000	28,000	-----	5,500
1926-27	182,600	848,135	146,000	28,000	-----	8,500
1927-28	178,600	869,150	146,000	22,000	-----	10,600
1928-29	233,900	1,138,275	200,000	22,000	-----	11,900
1929-30	238,600	1,160,660	200,000	25,000	-----	13,500
1930-31	243,500	1,185,000	200,000	30,000	-----	13,500

¹ Data not procurable for the years 1916-17 and 1917-18.² Converted at the par rate of \$4.8665.³ Includes a £2,000 estimate for services to Newfoundland each year from 1900-1901 to 1905-6, not shown in table.⁴ Includes a £250 estimate for Turks Island service, not shown in table.⁵ South American parcel post.

3. UNITED KINGDOM TO AFRICA

Year ¹	Total budget estimates for services to Africa ²		United Kingdom to west coast of Africa	United Kingdom to St. Helena and Ascension	United Kingdom to Aden and Zanzibar	United Kingdom to Chind Beira (parcel post) etc.
	Sterling	Equivalent in United States currency ³				
1900-1901	£29,255	\$142,370	£15,355	£3,900	£9,000	-----
1901-2	28,505	138,720	15,355	3,900	9,000	-----
1902-3	29,600	144,050	16,600	3,900	9,000	£75
1903-4	30,470	148,280	17,400	3,900	9,000	135
1904-5	32,175	156,580	17,900	5,070	9,000	135
1905-6	32,230	156,850	18,000	5,070	9,000	110
1906-7	32,820	169,720	18,000	5,070	9,000	200
1907-8	33,695	163,975	18,800	5,070	9,000	250
1908-9	34,895	169,815	20,000	5,070	9,000	250
1909-10	34,995	170,300	20,000	5,070	9,000	350
1910-11	38,060	175,485	21,000	5,070	9,000	400
1911-12	38,060	185,220	23,000	5,070	9,000	400
1912-13	38,320	186,485	23,000	5,070	9,000	650
1913-14	38,420	186,970	23,000	5,070	9,000	650

¹ Data not procurable for the years 1916-17 and 1917-18.² Converted at the par rate of \$4.8665.³ Includes estimates for Mauritius and Seychelles (£1,000 in 1900-1901 and £250 in 1901-2), Morocco (parcel-post service; estimates of £25 up to £250 a year for years 1902-3 to 1921-22), and Canary Islands (£500 annually from 1906-7 to 1915-16), not shown in table.

TABLE 48.—BRITISH FOREIGN AND COLONIAL MAIL SUBSIDY ESTIMATES—CON.

3. UNITED KINGDOM TO AFRICA—Continued

Year ¹	Total budget estimates for services to Africa		United Kingdom to west coast of Africa	United Kingdom to St. Helena and Ascension	United Kingdom to Aden and Zanzibar	United Kingdom to Chinde, Beira (parcel post), etc.
	Sterling	Equivalent in United States currency				
1914-15.....	£31,870	\$155,100	£24,500	£5,070	£900	£651
1915-16.....	29,620	144,150	22,500	5,070	900	500
1918-19.....	28,770	140,000	23,000	5,070	100	500
1919-20.....	28,820	140,250	23,000	5,070	100	500
1920-21.....	29,040	141,325	23,000	5,070	100	770
1921-22.....	33,670	163,855	27,000	5,070	1,000	500
1922-23.....	34,070	165,800	27,000	5,070	1,000	1,000
1923-24.....	141,570	688,950	27,000	5,070	1,600	1,500
1924-25.....	128,070	623,250	27,000	5,070	1,500	1,500
1925-26.....	35,570	173,100	27,000	5,070	1,500	2,000
1926-27.....	38,570	187,700	29,000	5,070	2,000	2,500
1927-28.....	45,070	219,335	29,000	5,070	4,500	6,500
1928-29.....	47,570	231,500	32,000	5,070	4,000	6,500
1929-30.....	52,070	253,400	35,000	5,070	4,500	7,500
1930-31.....	50,070	243,665	33,000	5,070	4,500	7,500

¹ Data not procurable for the years 1916-17 and 1917-18.² Includes £106,500 in 1923-24 and £93,000 in 1924-25 for South African services not shown in table.

4. UNITED KINGDOM TO EUROPE

Year ¹	Total budget estimates for services to Europe		Dover to Calais and Folkestone Boulogne	Harwick to Hook of Holland	United Kingdom to Hamburg (parcel post)	Sundry parcel-post services ²
	Sterling	Equivalent in United States currency ³				
1900-1901.....	£25,850	\$125,800	£25,000	£850	-----	-----
1901-2.....	25,850	125,800	25,000	850	-----	-----
1902-3.....	28,130	136,900	25,000	850	£1,950	£330
1903-4.....	28,300	137,720	25,000	850	-----	420
1904-5.....	28,810	140,200	25,000	850	2,500	460
1905-6.....	28,785	140,080	25,000	850	2,500	435
1906-7.....	28,785	140,080	25,000	850	2,500	435
1907-8.....	29,125	141,735	25,000	850	2,800	475
1908-9.....	29,285	142,515	25,000	850	2,800	635
1909-10.....	29,285	142,515	25,000	850	2,800	635
1910-11.....	29,285	142,515	25,000	850	2,800	635
1911-12.....	29,735	144,700	25,000	850	3,000	885
1912-13.....	44,555	216,825	40,000	850	3,000	705
1913-14.....	44,575	216,925	40,000	850	3,000	725
1914-15.....	45,065	219,310	40,000	850	-----	4,215
1915-16.....	42,445	206,560	40,000	850	-----	1,595
1916-19.....	43,450	211,450	40,000	850	-----	2,600
1919-20.....	42,850	208,530	40,000	850	-----	2,000
1920-21.....	43,550	211,935	40,000	850	-----	2,700
1921-22.....	85,700	417,060	80,000	1,700	-----	4,000
1921-22.....	80,990	394,140	70,000	1,490	-----	9,500
1922-23.....	85,700	417,060	70,000	2,700	-----	13,000
1923-24.....	82,000	399,050	64,000	8,000	-----	10,000
1924-25.....	78,000	379,585	60,000	8,000	-----	10,000
1925-26.....	82,000	399,050	60,000	10,000	-----	12,000
1926-27.....	83,000	403,920	60,000	10,500	-----	12,500
1927-28.....	88,500	430,685	60,000	12,000	-----	16,500
1928-29.....	96,000	467,185	72,000	14,500	-----	9,500
1929-30.....	96,000	467,185	72,000	14,500	-----	9,500
1930-31.....	96,000	467,185	72,000	14,500	-----	9,500

¹ Data not procurable for the years 1916-17 and 1917-18.² Converted at the par rate of \$4.8665.³ Comprises estimates for parcel-post services between Newhaven and Dieppe; Channel Islands, St. Malo, and Granville; Liverpool, Malta, and the Levant; the United Kingdom and Scandinavia and various other continental destinations.

BRITISH MARITIME CREDIT

The trade facilities acts of Great Britain and the loans guaranty act of Northern Ireland are measures by which these Governments were authorized to guarantee loans made for the purpose of promoting industrial activities which are large employers of labor. Essentially the political purpose of these measures was to reduce unemployment following the postwar slump.

One of the large employers of labor in the United Kingdom is the shipbuilding industry, and, while during the first period of the facilities acts not many guaranties were made for shipbuilding, such guaranties assumed an increasingly important place as the laws were renewed from time to time.

Under these laws loans approximating £85,707,000 (\$417,093,115) have now been guaranteed. Of this total, some £34,888,000 (\$169,783,000) has been absorbed by shipbuilding, including £2,723,000 (\$13,251,500) guaranteed for the construction of vessels for foreign owners, among which were the Italian Lloyd Sabaudo, the French Compagnie Générale Transatlantique, the Brazilian National Coastal Navigation Co., and a number of Norwegian owners.

BRITISH TRADE FACILITIES ACTS, 1921-1926

The original trade facilities act was passed in 1921, during the period of worst postwar depression, and provided for guaranties of £25,000,000 (\$121,662,500). No serious opposition to the measure was offered, and when it expired in 1923 another law was passed extending the scheme for another year and increasing the original amount to £50,000,000 (\$243,325,000). In 1924 another enactment carried the guaranties to an aggregate of £65,000,000 (\$316,332,500). In 1925 the law was again extended for a year, bringing the total guaranties to £70,000,000 (\$340,655,000); and in 1926 the final act was passed, extending the facilities one more year and increasing the loan-guaranty limit to £75,000,000 (\$364,987,500).

The original act contemplated eight general sections of industry, and of these the railways and power development projects received the largest share. Among the industrial undertakings, other than shipbuilding, for which loans were advanced, may be mentioned construction and electrification of railroads, power-plant development, mines development, sugar-beet production, and a large number of guaranties for the purchase of machinery for foreign account and for development of foreign industrial projects.

SHIPBUILDING GUARANTIES

Table 49 contains the essential details of guaranties authorized to March 31, 1929, to cover loans made for the purpose of promoting employment through shipbuilding. Included in these items are several which were subsequently withdrawn, reduced, or not proceeded with. In order, however, to measure the gross guaranties applying to shipbuilding or the extent of the Government's willingness under the law to guarantee loans for shipbuilding purposes, the entire list of such authorizations is presented. In the language of the official reports in which the items are set forth the items so listed are "guaranties which the treasury have stated their willingness to give."

TABLE 49.—GUARANTIES AUTHORIZED BY BRITISH TREASURY UNDER TRADE FACILITIES ACTS UP TO MARCH 31, 1929

Name of company	Amount of loan ¹		Term, years	Purpose of loan
	Sterling	Equivalent in United States currency ²		
Harland & Wolff (Ltd.).....	£1,493,345	\$7,267,365	10	Work on plant.
W. Beardmore & Co. (Ltd.).....	600,000	2,919,900	5	Completion of vessel for Lloyd Sabaud.
Palmer's Shipbuilding Co. (Ltd.).....	300,000	1,459,950	20	Work on plant.
Harland & Wolff (Ltd.).....	95,000	462,315	1	Completion of vessel.
Liverpool, Brazil, and River Plate Steam Navigation Co. (Ltd.).....	250,000	973,300	7	Do.
Glen Line (Ltd.).....	200,000	973,300	7	Do.
Royal Mail Steam Packet Meat Transport.	2,300,000	11,192,950	7	Construction of 3 vessels.
Union Castle Mail Steamship Co.	1,000,000	4,866,500	7	Construction of vessel.
Bank Line.....	1,800,000	8,759,700	20	Construction of 19 motor vessels.
Atlantic Transport Co. (Ltd.).....	400,000	1,946,600	5	Construction of vessel.
Anchor, Donaldson (Ltd.).....	400,000	1,946,600	10	Completion of vessel.
Bellaisa Steamship Co. (Ltd.).....	37,000	180,060	10	Construction of vessel.
Waverly Shipping Co. (Ltd.).....	37,000	180,060	10	Do.
Grahamston Shipping Co. (Ltd.).....	20,000	97,330	10	Do.
Silvercedar Shipping Co. (Ltd.).....	85,000	413,650	10	Construction of 2 vessels.
Peterson & Co. (Ltd.).....	600,000	2,919,900	10	To form company for construction of vessels.
Union Castle Steamship Co. (Ltd.).....	400,000	1,946,600	7	Construction of vessel.
Bowring Steamship Co. (Ltd.).....	37,500	182,495	10	Do.
Anchor Line (Henderson Bros.) (Ltd.).....	1,600,000	7,786,400	10	Construction of 3 vessels.
Nisbet Shipping Co. (Ltd.).....	27,500	133,830	10	Construction of vessel.
Dampskibsselskabet "Jeannette Skinner."	185,000	900,300	10	Do.
Lloyd Sabaud.	600,000	2,919,900	10	Do.
Manchester Liners (Ltd.).....	140,000	681,310	10	Construction of 2 vessels.
Warren Line (Ltd.).....	150,000	729,975	10	Construction of vessel.
Houlder Line (Ltd.).....	250,000	1,216,625	10	Do.
Hopemount Shipping Co. (Ltd.).....	150,000	729,975	8	Do.
Silvercedar Shipping Co. (Ltd.).....	55,000	267,660	8	Do.
British & African Steam Navigation Co. (Ltd.).....	600,000	2,919,900	5	Purchase of plant and materials for construction of vessels.
Pacific Steam Navigation Co.....	850,000	4,136,525	5	Do.
Klavensen Dampskibsselskabet.	128,000	622,910	8	Construction of vessel.
Northern Petroleum Tank Steamship Co. (Ltd.).....	72,500	352,820	7	Do.
Silvercedar Shipping Co. (Ltd.).....	10,000	48,665	8	Addition to £55,000 guaranty.
Way Shipping Co. (Ltd.).....	65,000	316,325	8	Construction of vessel.
Broomhill Collieries (Ltd.).....	33,000	160,595	10	Construction of colliers.
Oriel Shipping Co. (Ltd.).....	38,000	184,925	10	Construction of vessel.
Hopemount Shipping Co. (Ltd.).....	78,000	379,585	8	Do.
Blue Star Line (Ltd.).....	2,600,000	12,166,250	20	Construction of refrigerator vessels.
Oceanic Steam Navigation Co. (Ltd.).....	250,000	1,216,625	12½	Purchase of plant and materials for construction of vessels.
Aktieselskabet "Belpariel".....	155,000	754,310	7	Construction of 2 vessels.
Warren Line (Ltd.).....	155,400	756,255	10	Construction of passenger and cargo liner.
Cairn Line of Stansby (Ltd.).....	130,000	632,645	10	Construction of vessel.
Silver Line (Ltd.).....	1,107,000	5,387,215	20	Construction of 8 vessels.
Companhia Nacional de Navegação Costeira.	375,000	1,824,940	10	Construction of 3 vessels.
Blue Star Line (Ltd.).....	250,000	1,216,625	-----	Increase in guaranty.
Tank Ship Construction Co. (Ltd.).....	62,500	304,150	7	Construction of tankers.
McAndrews & Co. (Ltd.).....	325,000	1,581,610	10	Construction of 4 motor vessels.
British & African Steam Navigation Co. (Ltd.).....	300,000	1,459,950	8	Do.
Nitrate Producers Steamship Co.....	180,000	875,970	10	Construction of 2 vessels.
Coast Lines (Ltd.).....	300,000	1,459,950	10	Construction of 3 steamers.
Rederiet Belnor Aktieselskap.....	35,000	170,325	7	Construction of locomotive-carrying vessel.
Teakwood Steamship Co. (Ltd.).....	50,000	243,325	10	Construction of vessel.
Norfolk & North America Steamship Co. (Ltd.).....	400,000	1,946,600	12	Construction of 2 vessels.
Gulf Line (Ltd.).....	400,000	1,946,600	12	Do.
Shaw, Saville & Albion (Ltd.).....	675,000	3,284,890	12	Do.
Oceanic Steam Navigation Co. (Ltd.).....	675,000	3,284,890	12	Do.

¹ Includes approved applications subsequently withdrawn, reduced, or not proceeded with.² Converted at the par rate of \$4.8665.

TABLE 49.—GUARANTIES AUTHORIZED BY BRITISH TREASURY UNDER TRADE FACILITIES ACTS UP TO MARCH 31, 1929—Continued

Name of company	Amount of loan		Term, years	Purpose of loan
	Sterling	Equivalent in United States currency		
New Zealand Shipping Co. (Ltd.).....	£400,000	\$1,946,600	15	Construction of vessel.
Federal Steam Navigation Co. (Ltd.).....	400,000	1,946,600	15	Do.
Commonwealth & Dominion Line (Ltd.).....	600,000	2,919,900	12	Construction of 2 vessels.
Tank Ship Construction Co. (Ltd.).....	65,000	316,325	7	Construction of vessel.
Oceanic Steam Navigation Co. (Ltd.).....	900,000	4,379,850	18	Purchase of materials for construction of vessel.
Frederick Leyland & Co. (Ltd.).....	180,000	875,970	10	Construction of vessel.
Hopemount Shipping Co. (Ltd.).....	81,000	394,185	8	Do.
New Zealand Shipping Co. (Ltd.).....	133,000	647,245	Do.	Do.
Rederiet "Belmorla" Aktieselskap.....	106,000	515,860	7	Construction of 2 locomotive carriers.
Sheaf Steam Shipping Co.....	70,000	340,650	8	Construction of vessel.
Coastal Tankers (Ltd.).....	17,000	82,730	7	Do.
Prince Line (Ltd.).....	840,000	4,087,860	12	Construction of 4 vessels.
Steaua Romana.....	84,000	408,785	10	Construction of vessel.
America Levant Line.....	250,000	1,216,625	15	Construction of 4 vessels.
Total.....	27,487,745	133,769,100		

Sources: Parliamentary Papers No. 82 of 1922, Nos. 4, 95, and 132 of 1923, Nos. 5, 121, and 149 of 1924 Nos. 24, 85, 140, and 174 of 1925, Nos. 14, 61, 106, and 121, of 1926, and Nos. 7 and 61 of 1927.

The guaranties which the treasury was willing to authorize and which were subsequently withdrawn by the applicants, or were reduced in amount, or were not proceeded with after being authorized, included:

Withdrawals.—Silvercedar Shipping Co., £65,000 and £85,000; Manchester Liners (Ltd.), £140,000; Way Shipping Co., £65,000; Houlder Line (Ltd.), £250,000; Tank Ship Construction Co., £62,500 and £65,000; Cairn Line of Stansby (Ltd.), £130,000; Coast Lines (Ltd.), £300,000.

Reductions.—Klaveness Dampskibsaktieselskapet, £1,334; Broomhill Colliers (Ltd.), £2,800; Grahamston Shipping Co. (Ltd.), £670; Hopemount Shipping Co. (Ltd.), £18,000 and £13,500; Union Castle Mail Steamship Co. (Ltd.), £600,000; British & Africa Steam Navigation Co. (Ltd.), £140,000; Anchor Donaldson (Ltd.), £17,500; Atlantic Transport Co. (Ltd.), £114,511; Federal Steam Navigation Co. (Ltd.), £133,000; Royal Mail Steam Packet Meat Transport, £400,000; W. H. Allen & Sons, £1,450.

Not proceeded with.—Petersen & Co., £600,000; Pacific Steam Navigation Co., £850,000.

The total of these is £4,055,265 (\$19,734,950).

It appears therefore that a gross authorization of £27,487,745 (\$133,769,100) was made for shipbuilding purposes, reduced by £4,055,265 (\$19,734,950), leaving a net amount of £23,432,480 (\$114,034,150) as the actual guaranties obtained under the trade facilities acts of 1921–1926 for ship construction.

TERMS AND INTEREST RATES

The greater number of authorizations under the trade facilities acts are for 10 years and the range of terms for all loans varies from 5 to 20 years. Only two authorizations were for 20 years; the first

of these was the loan of £1,800,000 to the Bank Line for the construction of 19 motor vessels, and the second was the Blue Star Line loan of £2,500,000 for the construction of refrigerator vessels.

Included in the authorization of guaranties for foreign account were loans of £1,024,000 (\$4,983,300) covering six vessels built for Norwegian account, including three locomotive carriers. Other loans guaranteed for foreign account were £600,000 (\$2,919,900) for the Italian Lloyd Sabauda, £375,000 (\$1,824,940) for the Brazilian Companhia Nacional de Navegação Costeira, and £84,000 (\$408,785) for the Rumanian Steaua Romana.

The interest rates of the various loans depended entirely upon the money market and the effect of the Government guaranty. No official information is at hand as to interest rates, but frequently published statements in trade papers indicate they were 5 per cent or slightly higher; in a few instances, lower.

IRISH LOANS GUARANTY ACT OF 1922

In 1922 the Government of Northern Ireland passed a measure somewhat similar to the trade facilities acts but principally for the purpose of guaranteeing loans for ship construction. The following official statement by the Ministry of Finance, which is in charge of the loan-guaranty activities, was transmitted by Consul R. M. Brooks, Belfast, August 27, 1929:

In 1921 the British Government passed the trade facilities act authorizing the Imperial Treasury to guarantee the payment of loans to be applied toward the carrying out of capital undertakings or in the purchase of articles manufactured in the United Kingdom required for the purposes of any such undertaking. In 1922 the Government of Northern Ireland passed a similar measure with the main object of cooperating with the British authorities in guaranteeing loans for ship construction in Northern Ireland, the British Treasury guaranteeing that part of the loan which had relation to the provision of employment in Great Britain, namely, in the manufacture of iron plates, etc., Northern Ireland guaranteeing the expenditure incurred in Northern Ireland, namely, in the assembling of the plates and in the manufacture of machinery produced in Northern Ireland. The two Governments did in fact cooperate in the granting of guaranties to many large shipping companies placing orders in Northern Ireland.

The Northern Ireland act has been extended each year, the last extension being authorized under the loans guaranty (Northern Ireland) No. 2 act, 1928, which continued the facilities until March 31, 1930, and increased the maximum amount within which guaranties may be issued from £10,500,000 to £11,500,000 (from \$51,100,000 to \$56,000,000). The aggregate amount of the guaranties which the Government had given to December 31, 1928, was £9,431,000 (\$45,896,000), while the liability of the Northern Ireland Exchequer in respect of these guaranties had been reduced by the operation of repayments to the net figure of £8,383,000 (\$40,845,000). Advantage of these facilities has been taken by 14 of the largest shipping companies, and this form of Government assistance has been instrumental in bringing to the Northern Ireland shipyards since 1922 orders for the construction of not less than 47 ships.

Under the act the ministry has no power to make a loan; it can only guarantee one to enable the applicant to borrow on cheaper terms than would otherwise be possible. Interest rates average roughly 5 per cent. One of the most important requirements is the condition that the guaranteed loan must be used solely for the purpose of carrying out works of a capital nature, the ministry having no power to guarantee a loan which is to be used in whole or in part for the provision of working capital or for extinguishing existing liabilities or commitments.

All applications for guaranties come before an advisory committee consisting of prominent local business men, who recommend to the Minister of Finance,

having regard to the nature of the security offered. In general it may be taken that favorable recommendations are given only on the basis of a sound debenture security.

By act of July 11, 1929, the loans guaranty act was further extended until March 31, 1931. The following table presents the amounts of loans guaranteed by the Government of Northern Ireland for purposes of ship construction under provisions of the act:

TABLE 50.—LOANS GUARANTEED BY GOVERNMENT OF NORTHERN IRELAND UNDER LOANS GUARANTY ACTS OUTSTANDING MARCH 31, 1929

Name of company	Term, years	Amount of loan		Purpose of loan
		Sterling	Equivalent in United States currency ¹	
Harland & Wolff.....	(²)	£130,000	\$632,650	Ship construction.
Lampert & Holt.....	5	300,000	1,459,950	Do.
Glen Line.....	5	195,000	948,965	Do.
Royal Mail Steam Packet Co.....	5	1,200,000	5,839,800	Do.
Union Castle Mail Steamship Co.....	7	195,000	948,965	Do.
Atlantic Transport Co.....	5	600,000	2,919,900	Do.
Harland & Wolff.....	3	400,000	1,946,600	Do.
British & African Steam Navigation Co.....	5	118,000	574,250	Do.
Pacific Steam Navigation Co.....	5	500,000	2,433,250	Do.
Workman, Clark & Co.....	3	750,000	3,649,875	Do.
Workman, Clark & Co.....	3	150,000	729,975	Do.
Royal Mail Steam Packet Co.....	5	400,000	1,946,600	Increase.
Bermuda & West Indies Steamship Co.....	12	650,000	3,163,225	Ship construction.
Workman, Clark & Co.....	1	200,000	973,300	Do.
King Line (Ltd.).....	12	800,000	3,893,200	Do.
British & African Steam Navigation Co.....	5	140,000	681,310	Do.
Oceanic Steam Navigation Co.....	15	1,200,000	5,839,800	Do.
Nelson Steam Navigation Co.....	20	1,500,000	7,299,750	Do.
Bank Line.....	10	800,000	3,893,200	Do.
Hvalfangerselskapet "Kosmos" A/S.....	6	180,000	875,970	Do.
Silver Line.....	20	600,000	2,919,900	Do.
Vaccaro Bros.....	7	140,000	681,310	Do.
Harland & Wolff, on behalf of Compagnie Générale Transatlantique.....	15	550,000	2,676,575	Do.
Kosmos II Whaling Co. (Ltd.).....	5	185,000	900,700	Do.
Silver Line (Ltd.).....	3	50,000	243,325	Do.
Pacific Steam Navigation Co.....	10	250,000	1,216,625	Do.
Total.....		12,183,000	59,288,575	
Withdrawn (Pacific Steam Navigation Co.).....		750,000	3,649,875	
Net total guaranty.....		\$11,433,000	55,638,700	

¹ Converted at the par rate of \$4.8665.

² Before delivery.

³ According to House of Commons paper No. 225 guaranties up to Mar. 31, 1931, were £11,455,657 (\$55,748,950); £2,043,820 (\$9,946,250) had been repaid, leaving a balance outstanding of £9,411,837 (\$45,802,700). The same report states that the ministry repaid £11,430 (\$55,625) in principal and £3,714 (\$18,074) in interest in the fulfillment of guaranties.

Sources: Parliamentary Papers (House of Commons) Nos. 31, 32, 43, 58, 98, 111, 119, 133, 155, 179, 188, 215 and 225.

According to the final report on the acts, House of Commons Paper No. 225, the total authorizations as of March 31, 1931, were £11,455,657 (\$55,748,950). In this were included £180,000 (\$875,970) for the Kosmos Whaling Co. and a guaranty of £550,000 (\$2,676,575) to the Compagnie Générale Transatlantique.

BRITISH COMMENT ON THESE LAWS

The British trade facilities acts and the Northern Ireland loan guaranty act were adopted at a time of industrial depression so severe that any method of relieving unemployment was considered

as overshadowing any objections against the measures. Such objections arose primarily among shipowners, especially the section of British ownership represented by tramp operations and the chamber of shipping, based upon the fear of further overtonnaging the tonnage market. The Government's refusal to entertain proposals for directly subsidizing shipbuilding or for scrapping old tonnage and building new out of taxes was based upon the inadvisability of artificially stimulating a highly efficient industry.

Advocates of the measures, however, theorized that, aside from the direct economic benefit of increasing employment, the facilities acts were more desirable than shipbuilding subsidies, inasmuch as the effect of the latter was simply to produce more vessels regardless of possible employment after such vessels entered the market, while under the guaranty provisions each undertaking must be proven before the guaranty could be obtained. The guaranty simply put the credit of the state behind those schemes which the advisory committee approved. The responsibility for overtonnaging the market, therefore, would rest officially on the administrators of the laws.

As to the benefits under the original intent of the scheme, that of relieving unemployment, comment seems to be altogether favorable. The chamber of shipping stated in its fiftieth annual report:

Whilst the application of these acts to shipbuilding has helped considerably to reduce the quantity of unemployment and to keep together at a critical period the personnel of great British shipbuilding establishments, it may have tended somewhat to protract the period of depression of shipping, although it must be borne in mind that the great proportion of the guaranties given by the Government for shipbuilding was in respect of the replacement of high-class liner tonnage, which did not add materially to the total cargo-carrying tonnage.

MARINE INSURANCE GUARANTY

The following report by Trade Commissioner Roger R. Townsend, London, November 13, 1930, is a statement of the recent discussion of the problems of insurance arising in connection with the construction of two large Cunard vessels:

The British Government has agreed to assist the Cunard Steamship Co. in building and operating one, or possibly two, passenger vessels of exceptional size and value, by undertaking to provide insurance against both construction and marine risks in so far as the ordinary insurance market is unable to do so. The financial resolution authorizing the Board of Trade to assume this responsibility was unanimously passed by Parliament. No cash payment was involved in this resolution, which was confined to providing the necessary insurance at stated rates of premium.

In explaining the necessity for such Government assistance, the president of the Board of Trade stated that the vessel was estimated to cost between £4,000,000 and £4,500,000 (say \$20,000,000 to \$22,000,000), although the amount involved might be larger. He confessed to some surprise that the ordinary insurance market was unable to cover this amount by spreading the risk, but he was informed that it could probably absorb only about £2,000,000 to £2,500,000 (roughly \$10,000,000 to \$12,500,000) of the total risk. The Cunard Co. would be required to exhaust all possibilities of the open market before calling on the Board of Trade to make up any deficiency.

NO COMPETITION WITH ORDINARY INSURANCE MARKET

The president of the Board of Trade was careful to explain that the Government would not compete with the open market in the matter of actual premium rates charged the company. When the market had absorbed all it could of the construction risk, the Government fixed a rate of premium on the

remainder of 1½ per cent for three years, plus an additional 2½ per cent on that rate. If the vessel were not delivered or accepted within three years from the laying of the keel, there would be an addition of 6d. per cent (that is one-fortieth of 1 per cent) per month thereafter. This rate had been determined with the advice of the chairman of Lloyds. With regard to ordinary marine risks, the Board of Trade would cover any deficiency at reasonable rates similar to those fixed by the market for the ship, or fixed with reference to market rates for similar risks, plus an additional 2½ per cent thereon. The agreement with the company also provides for the insurance of a second vessel on similar terms if the Board of Trade is satisfied that the keel will be laid within six years from the execution of the agreement.

The president of the Board of Trade stated that in recent times there had been a great falling off in the number of passengers proceeding from Europe to the United States, which was due in part to quota restrictions in the United States and to some extent to industrial depression. When the recovery came, with a consequent increase of passenger traffic, he said it was of vital importance to British shipping that it be in position to take a leading part. To that end the proposal of the Cunard Co. was to lay down two very large vessels to do work now being done by three. These two ships would justify themselves as an economic proposition and would have sufficient speed to do the journey within a week.

EFFECT ON UNEMPLOYMENT

In further justification for the Government's action, it was stated that the construction of the first vessel would provide employment for about 5,000 men for three years. This would mean a saving in unemployment insurance benefit of at least £250,000 (\$1,217,000) per year. There would be continuous employment for three years for at least 3,000 men in the yards of John Brown & Co. (Ltd.), at Clydebank, where the construction would take place, while employment for others would be indirectly affected.

PREFERENCES AND RESTRICTIONS

RESERVATION OF THE COASTING TRADE

Under the old navigation laws the trade between England and its colonies and also the coasting trade of the colonies themselves were reserved to ships flying the British flag, but this reservation was removed in the period from 1849 to 1854, when the last remnants of the navigation laws were wiped out. Now there are no restrictions on the entry of foreign shipping into the coasting trade of Great Britain and Northern Ireland nor into the trade between the several parts of the British Empire.⁴¹

In the course of his testimony before the select committee on steamship subsidies in 1902 Sir Robert Giffen, who for many years had been the head of the statistical and commercial department of the British Board of Trade, suggested that the coasting trade of the British Empire should be reserved to British ships in either of the following ways: (1) By excluding foreign ships, especially those receiving subsidies, from the coasting trade of the different parts of the British Empire and from the trade between the United Kingdom and Australia, or between the United Kingdom and India, or between Australia and India, and so on; or (2) by admitting foreign ships to the imperial coasting trade only upon condition that they comply

⁴¹ Consul General Cornelius Ferris, Dublin, reported on June 18, 1929, that the Ministry of External Affairs of the Irish Free State had stated that comprehensive legislation in regard to merchant shipping, including the coasting trade, was then in course of preparation. Meanwhile the law in force in the Irish Free State is that portion of the law contained in the merchant shipping acts, 1894 to 1921, which was (1) in force in the United Kingdom on Dec. 6, 1922; and (2) put into effect in the Irish Free State by virtue of the provision of article 73 of the constitution.

with the same rules as to construction, equipment, and inspection as English ships and pay for the privilege of engaging in this trade an amount equal to or greater than any subsidy they receive.

In its report the select committee made the following reference to the above suggestions:⁴²

Your committee thinks that the occasion has come when the question of the qualified reservation of British imperial coasting trade on the lines above indicated should be considered by His Majesty's Government, with a view to reserving the British and colonial coastwise trades and the imperial "coasting" trade within the British Empire to British and colonial ships and to vessels of those nations who throw open their coasting trade to British and colonial ships.

EXEMPTION FROM FISCAL CHARGES

PORT DUES

Since the war coastal shipping has been aided by the Government in regaining its normal status; this aid was occasioned, however, not by the competition of foreign shipping but by the competition of the British railways. Assistance has been provided through a derating scheme, under which the Port of London Authority as from November 1, 1929, made certain funds (estimated at £120,000 to £130,000) available for the coastwise and short-distance trades. Port rates on all inward and outward goods carried in the coastwise trade are halved and all dock rates on coastwise vessels, inwards and outwards, are reduced from 11 pence per net register ton to 7 pence per net register ton. In addition vessels engaged in the so-called "home trade"—that is, continental ports between Brest and the Elbe—are to have rates lowered from 8 pence to 7 pence per ton.⁴³ Under the same general scheme the port of Liverpool from April 1, 1929, became a free port as far as concerns outward coasting trade.⁴⁴

⁴² Report of Dec. 3, 1902, p. xxii.

⁴³ Report of Ray Atherton, chargé d'affaires ad interim, London, Nov. 4, 1929.

⁴⁴ Report of Vice Consul Cyril Thiel, Liverpool, May 5, 1929.

ITALY¹

ECONOMIC DEVELOPMENT AND SHIPPING

Development of communications as a national policy is historic in Italy. The mainstay of the Roman military control of Italy at first, and of the whole Empire afterwards, lay in the splendid system of military roads. Communication by sea had been the concern of the Italian Government prior to the unification of the Italian nation, as it has been ever since.

Consolidation of the Italian Kingdom under one government was coincidental with the development of the modern type of ocean transportation. Italy had no coal and no native ores from which steel for the modern type of ship could be made; the only asset it could claim was an abundance of labor at low wages. From sheer necessity natural handicaps had to be met, to which end the nation provided mail subsidies, construction and navigation bounties, and other Government aid toward furthering the essential shipbuilding industry.

It is impossible to say to what extent existing laws will affect Italian shipping except as to amounts of public funds expended in its stabilization; it is impossible accurately to measure the effect of stabilized and controlled shipping upon the economic development of Italy or to measure the effect on shipping of certain economic developments, but some of the more obvious results of Italian shipping operations can be pointed out.

THE ITALIAN SUBSIDY SYSTEM

ECONOMIC CONSIDERATIONS

The Italian ship-subsidy system rests upon certain definite conceptions of the relations of a government to its citizens. It is instructive because it expresses certain of those relations more clearly and comprehensively than they usually are expressed in maritime legislation. The Mussolini system asserts positively two principles—first, the obligation of the state to provide in its own behalf means of transport by water for its citizens; second, the power of the state to require of its citizens the discharge of that obligation. To the Government of Italy the waters surrounding the peninsula, the islands, and the colonies are the medium of communication between Italian citizens, and a transport system has been especially devised to use

¹The material on Italy comprises (a) a rearrangement of portions of Trade Information Bulletin No. 529, Italian Ship-Subsidy Systems, by E. T. Chamberlain, and (b) Special Agents Series No. 119, Government Aid to Merchant Shipping, by Grosvenor M. Jones; (c) certain portions of Shipping and the State, by J. E. Saugstad, United States Shipping Board, 1928; and (d) original treatment of the present contract services, shipbuilding-bounty system, and shipping finance of Italy; besides summary tabulations of the amounts expended upon the entire Italian merchant marine.

that medium. In other words, the subsidized water lines serve precisely the purposes which the old Roman highways served on land.

The subsidy system is formulated to serve Italian citizens in their relations to the Italian state; it is designed principally to insure their transportation under their own flag between the various ports of the peninsula, the islands, and the colonies of Italy. The scope of this subsidy system takes into account the questions of mobilization and the range of military duties, and it provides a means of transportation of Italian citizens for attendance as members at the sessions of Parliament or for the discharge of official duties as officers or employees of the Government. It provides, further, for transportation for disabled war veterans in recognition of their military services. It enables Italians to be present at elections and at national anniversaries and celebrations. The system also assures like transportation to Italians for purposes which are regarded as national, such as attendance at the national universities and schools of fine arts, at expositions, congresses, and fairs, and on scientific expeditions and as religious missionaries to the colonies and non-Italian regions. All the subsidy contracts contain special requirements for the accomplishment of these purposes.

The protection of Italians while so transported is undertaken through the requirement that the subsidized ships shall be capable of carrying 6-inch guns for defense and shall carry an extra captain and chief engineer, so as to be at all times under command of qualified Italians.

The only fast subsidized Italian mail lines are the Mediterranean lines, including the fast lines to Egypt. The Italian fast mails to and from North America are dispatched by rail from and to ports on the English Channel and there transferred to American, British, or French express steamers.

Italian passenger service with North America has been maintained by the large Italian passenger traffic, and as this has diminished many of the larger and faster Italian passenger liners are seasonally diverted to the trade between Italy, Brazil, and the River Plate following the flow of Italian emigration. The trans-Atlantic Italian passenger liners are adapted to the habits and customs of the Italians who travel by them.

COMMERCIAL CONSIDERATIONS

From the commercial point of view the subsidy system is designed mainly to promote the trade of Italians with one another, inasmuch as the geographical scope of the system is confined chiefly to the Mediterranean and those parts of Africa, Asia, and southern Europe where for centuries Italians have been established and are increasing in numbers. In the subsidy contracts provision is made against improper competition with existing Italian steamship companies, subsidized or nonsubsidized. The subsidized lines can not undertake, without the Government's permission, steamship services for foreign countries. All the contracts for "indispensable" lines prohibit the steamship companies from direct or indirect participation in trusts, combinations, cartels, or agreements of any kind tending to modify

prices artificially or divert currents of exports or traffic which would obstruct the initiative of the Italian nonsubsidized merchant marine.

Beyond all these public or quasi public obligations which the subsidized Italian steamers discharge, the system covers the Mediterranean, Adriatic, Aegean, and Red Seas from Gibraltar to Aden with a network of lines by which, in return for the contract subsidies, the Italian mails are transported on regular schedule by Italian ships between Italian ports and Italian populations. The contracts contain the usual provisions for the receipt, custody, and discharge of the mails and parcel post.

CHOICE OF SYSTEMS

The Italian subsidy system is complicated, and probably should be considered as a concrete expression of the maritime and political aspirations of a peninsular nation, prolific, placed by nature athwart a historical route of navigation, and trained for centuries to a seafaring life, largely by necessity.

In view of the particular public purposes to be attained, two courses were open. First, the state could assume the ownership, control, and entire operation of the transport system, with all the attendant financial obligations and opportunities, as Italy has done with most of its railroads. The Mussolini administration rejected this absolutely for shipping and even severed the relations which before the war the Government maintained with shipping through the state railways.²

The second course was for the Government to impose upon its citizens the obligation to perform the public services to be rendered through "indispensable" transportation by water and to provide such a return for those services as would secure their satisfactory performance. This course necessarily involved definite cooperation between the Government and groups of citizens with diversified interests.

CHOICE OF LINES

In considering the reorganization of the Italian maritime transportation system the choice of lines to be subsidized was based upon the report of a special commission, composed of three senators and two deputies, appointed by a decree of April 19, 1923, to which were attached a number of high officials of the Ministry of Communications and a representative from the State Railways. This commission made an exhaustive study of the situation and recommended two groups of subsidized services. The first of these was known as in-

²The law of April 5, 1908, intrusted to the State Administration of Railroads the operation after July 1, 1910, of certain lines of navigation between the mainland and the near-by islands. These lines comprised three postal lines between Civitavecchia and Terranova, between Terranova, the Aranci Gulf, and Maddalena, and between Naples and Palermo, besides a "free" (nonsubsidized) commercial cargo vessel, and ferry services.

By Royal Decree No. 3223 of December 31, 1923, the Minister of Public Works, the Commissioner for the Merchant Marine, and the Ministers for Finance and for Posts and Telegraphs were authorized to conclude final arrangements for the maritime services then operated by the State Railways and to intrust these operations to private enterprise either by inviting bids for the services or by private negotiations. In the general reorganization of subsidized services which followed in 1925 and 1926 the vessels formerly operated by the State Railway Administration were assigned to various operators of the "indispensable" lines.

dispensable lines (*linee indispensabili*), defined as lines connecting by shortest route and with adequate speed the islands with the Italian mainland; the second group was known as useful lines (*linee utili*) and defined as lines connecting Italian ports with foreign ports with a view to (*a*) increasing the traffic and aiding the introduction there of Italian products, (*b*) encouraging the establishment abroad of branches of Italian firms, (*c*) facilitating the importation into Italy of necessary foreign raw materials, and (*d*) opening new outlets for emigration and with colonial ports with a view to strengthening the economic, agricultural, and sentimental ties between Italy and its colonies.

GOVERNMENTAL CONTROL OF TRANSPORTATION

Preparation of the contracts between the Government and the subsidized lines and the control over their execution are in the hands of the Director General of the Merchant Marine at the Ministry of Communications. No special regulations govern the granting of concessions for such lines, which are subject to the general regulations applying to Government concessions and may be made either by public tender or by private negotiation.

The Italian railways are Government owned and operated under the general responsibility of the Minister of Communications. With the Minister of Communications directing the Government railways and to all practical purposes the shipping services, there is, therefore, under this one official a complete delivery organization. There remains the connecting link, port facilities, and this receives active support from the Minister of Finance.

Thus the Italian system is gradually being welded into an efficient transportation network directed by the Government, although the shipping services as such are not Government owned.

WATER-BORNE COMMERCE

According to Monthly Statistical Bulletin of Italy for January, 1931, the total freight tonnage of Italy's water-borne commerce during 1930 was 36,875,179 tons. Italian vessels carried 23,796,677 tons, or 64 per cent of the total; foreign vessels, 13,078,502 tons. Of a total passenger movement of 9,577,791, including local services, Italian vessels carried 9,468,724 and foreign vessels 109,067.

During 1930 Italian vessels carried 99 per cent of the coasting trade, 71 per cent of the foreign passenger trade, and practically all of the domestic passenger trade, only 5,080 persons being carried by foreign vessels, while 9,188,474 were carried in Italian vessels.

If freight rates accruing to Italian vessels in the coal movement from the United Kingdom for the period 1922-1925 are taken as 100, then such rates rose to 111 in 1926, declined to 84.98 for 1927 and to 71.76 for 1928, rose to 79.11 for 1929, and dropped to 56.98 for 1930. Rates to foreign vessels in the same trade declined from 100 to 63.75 during this period.

SHIPPING'S CONTRIBUTION TO INTERNATIONAL BALANCE

According to the British shipping journal, *Fairplay*, of September 25, 1930, the Genoa Economic Council is of opinion that (a) the general total receipts of the Italian merchant marine for passenger transport approximate 900,000,000 Italian lire (\$47,340,000), eight-tenths of which is for passages to the two Americas, Australia, and intermediate ports. It may be assumed that 40 per cent of the money so collected is absorbed by expenditures abroad, while 60 per cent remains an asset in Italy's commercial balance. Consequently the participation in the commercial balance may be considered to have been about 550,000,000 lire (\$28,930,000) in 1929.

(b) The approximate total of freights collected by the Italian merchant marine for the transport of goods loaded and discharged in Italian ports, arriving from or going to other countries and for transit trade between foreign ports was for 1929 estimated at £12,900,000 (about \$62,800,000). Assuming that 60 per cent of the freights collected in respect of goods traffic is absorbed by expenditures abroad, there remains 40 per cent in the payments' balance, and therefore the contribution of the goods traffic amounts to £5,160,000, equal to 477,000,000 Italian lire (\$25,000,000).

Fairplay concludes:

. These figures, obtained by tabulating by category and by applying the mean average rates to the traffic figures supplied by official statistics, show that the aggregate contribution of the Italian merchant marine to the credit account of Italy's commercial balance, under the form of "invisible exports," increased in 1929 to over 1,000,000,000 lire (\$52,600,000).

THE ITALIAN COMMERCIAL FLEET

Italy's power-driven commercial tonnage increased ninefold in the period 1895 to 1927, in which latter year it reached its peak upon completion of the construction required under the 1926 subsidy contracts discussed farther on; it has doubled since the beginning of the World War. A powerful factor in this development lies in the migration of the Italian population. Italy maintains a population of 38,000,000 on an area of 120,000 square miles, largely mountainous. Migration is thus a physical necessity to a considerable part of the Italian population, but with that necessity is joined an attachment to the soil, strong with all Latin races and compelling with the Italian.

Not unnaturally these emigrants prefer Italian ships, on which the language, customs, and food are those with which they are familiar and which they are loath to leave. This migration affords a special element of strength to Italian passenger lines to North and South America, obviating any question of their subvention. In the decade before the World War the Italian emigrant lines to the United States, operating only from Italian ports, showed a greater increase in steerage passengers than any other such lines from Europe. Indeed, in 1912 the Brazilian Government agreed to pay a subsidy of 3,300,000 lire to four of the principal Italian lines for two voyages a month to provide Italian labor to harvest the Brazilian coffee crop. Limitation of immigration into the United States has compelled Italians to seek other destinations. The new concentration is directed toward Africa and, particularly, South America.

Table 51, which follows, shows the increase in Italy's power-driven fleet and the decrease in sailing tonnage that has taken place since 1895:

TABLE 51.—GROWTH OF THE ITALIAN COMMERCIAL FLEET

July 1—	Total fleet ¹		Steam vessels ¹		Sailing vessels ¹	
	Number	Gross tons	Number	Gross tons	Number	Gross tons
1895.....	1,239	778,941	228	339,088	1,011	439,853
1900.....	1,176	983,655	312	540,349	864	443,306
1905.....	1,209	1,189,066	375	741,110	834	447,956
1910.....	1,080	1,320,653	450	987,559	630	333,094
1915.....	1,177	1,736,545	655	1,513,631	522	222,914
1920.....	1,115	2,242,393	789	2,118,429	326	123,964
1921.....	1,271	2,650,573	893	2,467,537	378	183,036
1922.....	1,413	2,866,335	1,016	2,698,722	397	167,613
1923.....	1,416	3,033,742	1,043	2,880,776	372	152,966
1924.....	1,299	2,832,212	971	2,718,606	328	113,606
1925.....	1,353	3,028,661	1,035	2,930,836	318	97,825
1926.....	1,401	3,240,630	1,099	3,150,246	302	90,384
1927.....	1,429	3,483,383	1,132	3,395,522	297	87,861
1928.....	1,429	3,428,817	1,142	3,348,732	287	80,085
1929.....	1,380	3,284,660	1,105	3,215,327	275	69,333
1930.....	1,380	3,331,226	1,105	3,261,922	275	69,304
1931.....	1,347	3,335,673	1,101	3,273,525	246	62,148

¹ Vessels of 100 gross tons and upwards.

Source: Lloyd's Register of Shipping.

The general increase of power-driven tonnage has been fairly steady; the small decrease indicated above since 1929 has little significance, inasmuch as the enlarged scope of the subsidized services and reduction in competition probably have in no way reduced the demanded service to Italian nationals—which, rather than gain or loss in tonnage, is the measure of the value of a merchant fleet.

The effect of commercial air services on Italian shipping will be watched with interest. Italy's commercial air services began operations in 1926; by 1928 the route mileage had increased fourfold, passenger traffic threefold, and postal matter carried tenfold.³ The total length of air lines in operation on December 31, 1928, was 11,000 kilometers (6,800 miles), being an increase of 6,600 kilometers (4,100 miles) during the year.

SUBSIDY SYSTEMS PRIOR TO WORLD WAR.

CONTRACT SERVICES

Development of communications as a national policy is historic in Italy. Before consolidation various of the small Italian States operated postal and passenger steamship lines directly and at a deficit. Thus by 1850 the Government service between Sardinia and Genoa had incurred a deficit that reached 476,000 lire annually, whereupon a parliamentary commission recommended the letting of contracts to private contractors for passenger and mail services based upon Government subsidy, and a bill for this purpose was introduced in the sub-Alpine Parliament in 1851.

³ Appropriations for subsidies to Italian air lines for the fiscal year ending June 30, 1929, amounted to 49,500,000 lire (\$2,603,700 at \$0.0526 to the lira), and the subsidies actually paid during 1928 were 31,321,419 lire (\$1,647,500).

Under this legislation services three times a month between Genoa and Cagliari and between Genoa and Portotorres were established under Government control provisionally, and these services subsequently were let to the Rubattino Co. for 10 years at 250,000 lire per annum. The Sicilian Government contracted with Vincenzo Florio for a weekly service between Naples and Palermo and Naples and Messina for a term ending April 25, 1865, and also for a periodic service to the outlying islands near Sicily for a total subsidy of 30,000 ducats annually.

Other services also were started, including one by the Compagnia Transatlantica between Genoa and New York for 640,000 lire annually for a 15-year period. A Sicilian line to New York proved unsuccessful and was finally taken over by the Anchor Line. Various lines were projected and extended in services between the Italian mainland and Mediterranean ports, as well as through the Suez Canal to India by the Rubattino Co.

In 1882 the Rubattino and Florio companies were amalgamated into the Navigazione Generale Italiana, and shortly thereafter the new organization began to expand its service to Sardinia and Red Sea ports, and also to Greece and the East Indies. As a result of these and other changes, the Government subsidies increased to nearly 10,000,000 lire annually. During this period the distinction between postal and commercial lines became more sharply defined.⁴

PROVISIONS OF EARLY MAIL CONTRACTS

From 1862 to 1877 Italy's subsidy system took the form of postal contracts, and the Government paid out during these years a total of 126,250,000 lire (\$24,365,000 at par of that day) for this purpose. It was recognized as unnecessary to subsidize coastwise lines that ran parallel to railways, and from 1877 to 1893 there was a well-defined effort to cancel Government subsidies to such lines and also for carrying mails and to aid lines engaged in foreign trade as commercial carriers.

Without entering into detailed discussion of the mail-contract provisions of the early stages of the system, it may be stated that the principal beneficiary was one Italian company which operated nearly 20 routes with an aggregate route mileage of 35,000, on which about 1,100 voyages were made annually for a total compensation of about \$1,500,000; these services were largely in the Mediterranean. The rest of the system involved short and frequent voyages. The entire cost was less than \$2,500,000. The subsidy consisted principally of a mileage payment based upon a speed range of from 10 to 13 knots, payable both outwards and inwards under a 15-year contract.

Following the expiration of the long-term mail contracts on June 30, 1908, there was much uncertainty as to the proper action to be taken on the payment of subsidies. The contracts were therefore extended to June 30, 1910, pending an exhaustive study of the subject.

From July 1, 1910, to June 30, 1913, the subsidized steamship services were regulated by provisional and definite conventions approved by the law of June 13, 1910, which allotted annual appro-

⁴Notizie sulla marina mercantile dei principali paesi marittimi. Ministero della Marina, Rome, 1911.

priations aggregating 13,660,000 lire (\$2,636,400) to be distributed among 11 steamship companies. Except for certain domestic services in the Adriatic and to the smaller islands and the service between Tripoli and Alexandria (Egypt), the services called for by this law were none other than those long maintained by the Navigazione Generale Italiana to Sardinia, Sicily, Tunis, Tripoli, Cyrenaica, Egypt, the Levant, the Red Sea, India, and China, and by the Società Veneziana di Navigazione to Calcutta.

In addition, the State subsidized a special postal and commercial service between Tripoli and Torbruk, which was assigned to the Banca di Roma, and granted a compensation to the Compagnia di Antivari for transportation of mail between Italy, Montenegro, and Albania.

NEW PLAN OF 1913

The subsidy system of Italy was altered by the laws of June 30, 1912, December 22, 1912, and May 29, 1913, and the royal decree of June 29, 1913. This new plan went into effect on July 1, 1913, and provided at the outset for fixed subsidies amounting to 16,000,000 lire (\$3,088,000 at pre-war par) yearly for the 10 years between July 1, 1913, and June 30, 1923. This was immediately increased to 19,250,000 lire (\$3,715,300). Under the new system Italian shipping was divided into four groups:

- I. Upper Tyrrhenian;
- II. Lower Tyrrhenian;
- III. Adriatic, including the fast-mail steamship service to Egypt;
- IV. Miscellaneous services.

The law provided for an annual subsidy of 6,123,000 lire (\$1,181,700 at pre-war par) for the services comprised in Group I, 4,110,000 lire (\$793,200) for those in Group II, and 3,200,000 lire (\$617,600) for the Adriatic services and 2,500,000 lire (\$482,500) for the fast line to Egypt comprised in Group III.

One bid was received for the Upper Tyrrhenian service but none for the services in Groups II and III, the subsidies being regarded as too low. The Government thereupon increased the payments as follows: For the Lower Tyrrhenian service, to 5,180,000 lire (\$999,700); for the Adriatic, to 4,500,000 lire (\$868,500); for the Egyptian service, to 3,450,000 lire (\$665,800). At the same time the duration of the contract for the service to Egypt was lengthened to 15 years.

SUMMARY OF DEVELOPMENT

The development of the Italian mail-contract system prior to the World War may be outlined roughly by periods, service requirements, and authorized annual expenditures as follows:

TABLE 52.—DEVELOPMENT OF ITALIAN MAIL-CONTRACT SYSTEM PRIOR TO 1914

Approximate date	Contract	Annual mileage	Annual subsidy authorized	
			Lira	Equivalent in United States currency ¹
1862		971,872	7,921,056	\$1,528,800
1873		1,206,795	7,825,364	1,510,300
1882	Florio & Rubattino, Feb. 4, 1877, approved by Law No. 3880, June 15, 1877, series 2 and following— Peninsulare, Oct. 5, 1879, approved by Law No. 5250 of Jan. 29, 1880, series 2.	1,683,252	8,370,868	1,615,600
1893	Navigazione Generale, Puglia, Siciliana, Napoletana, and Nederland companies, Law No. 195 of April 22, 1893, and Royal Decree No. 592 of Oct 29, 1893.	9,192	500,000	96,500
1903	Extension of preceding Peninsulare, July 14, 1895, approved by Royal Decree No. 737, of Sept. 24, 1895.	2,008,084	9,574,223	1,847,800
1910	Law No. 306 of June 13, 1910.	2,845,815	12,066,925	2,328,900
1912	Laws Nos. 685 and 686 of June 30, 1912, and No. 306 of June 13, 1910.	9,192	500,000	96,500
		2,887,494	13,660,000	2,636,400
		3,642,057	23,610,400	4,556,800

¹ Converted at the pre-war par rate of \$0.193 to the lira.

Sources: Notizie sulla marina mercantile dei principali paesi marittimi, p. 25, Ministero della Marina Rome, 1911; Commissione Reale per la definitiva sistemazione dei servizi marittimi indispensabili e delle inee utili, vol. 1, p. 10, Rome, 1924.

Under these various enactments Italy had paid in postal subsidies, up to the outbreak of the World War, more than \$100,000,000—\$16,816,000 in the period from 1862 to 1872, \$7,551,000 between 1873 and 1877, \$21,500,000 from 1878 to 1885, and \$60,190,000 between 1886 and 1914.

NAVIGATION BOUNTIES

LAW OF DECEMBER 6, 1885

Upon the recommendation of a parliamentary committee appointed in 1881 the law of December 6, 1885, authorized navigation bounties for vessels of Italian nationality, whether of Italian or foreign construction, under certain limitations. The limitations excluded vessels that did not carry first-class ratings with approved classification societies, steamers receiving mail subventions, pleasure craft, sailing vessels more than 15 years old, and steamers more than 10 years old. Steamers receiving bounties could not be sold or chartered to foreign governments without the consent of the Italian Government.

The law provided for a bounty of 65 centesimi (\$0.125 at pre-war par) per gross ton per 1,000 miles run between ports on the Mediterranean, Sea of Marmora, Black Sea, Sea of Azov, and the Danube and to ports beyond the Suez Canal or Gibraltar. The bounty provisions were also effective on voyages between one continent and its adjacent islands and any other continent and the islands belonging to it, if such voyages did not lie wholly within the Mediterranean Sea.

LAW OF JULY 23, 1896

The act of December 26, 1895, extended the 10-year limit of the act of December 6, 1885, and on July 23, 1896, a new law was enacted for a 10-year period.

Vessels ineligible to navigation bounties under the new law were those receiving postal subsidies; pleasure craft; sailing vessels operating between ports of Italy; steamers of less than 500 gross tons; sailing vessels of less than 250 tons if built of iron or steel, and 100 gross tons if built of wood and operating on routes beyond the Mediterranean; steamers more than 15 years old; and sailing vessels more than 21 years old.

Vessels eligible for these bounties were, first, Italian-built vessels registered at the time of the passage of the act or at any time during the life of the act; second, Italian-built vessels under construction at the termination of the law, on condition they were registered within two years thereafter; and, third, foreign-built vessels registered prior to January 1, 1887.

This 1896 law first introduced flexible provisions aimed to encourage renewal, higher speed, and larger size of vessels. The basic navigation bounty rate was increased to 80 centesimi (\$0.154) per gross ton per 100 nautical miles.

The full basic rate was granted to Italian steamers and sailing vessels operating between ports on the Mediterranean, Sea of Marmora, Black Sea, Sea of Azov, and the Danube, and ports beyond the Suez Canal or Gibraltar; likewise to ships operating in the indirect trades beyond the Suez Canal and Gibraltar.

A bounty equal to two-thirds of the basic rate was granted to steamers and sailing vessels in the Mediterranean between other than Italian ports, including the Sea of Marmora, Black Sea, Sea of Azov, and the Danube River; and to steamers, but not to sailing vessels, operating between ports of Italy.

Faster speed was contemplated by a provision for increasing the basic bounty rate by 50 per cent to Italian-built vessels capable of averaging 16 knots on a 12-hour loaded trial run. Larger size was aimed at by the size limitations of ships qualifying for bounties. The renewal feature of the law lowered age requirements on subsidized ships.

Steamers receiving navigation bounties were required to carry Italian mails free of charge, and the Italian Government was given the power to requisition any subsidized vessel in case of war, epidemic, or other emergency.

DECREE OF NOVEMBER 16, 1900 •

The navigation bounties under the law of 1896 were modified by the royal decree of November 16, 1900, which further restricted the provisions under which navigation bounties could be granted. All foreign-built tonnage was made ineligible to bounty provisions. The basic rate was reduced from 80 centesimi per gross ton per 1,000 miles for both steamers and sailing vessels to a new rate of 40 centesimi (\$0.0772) per gross ton to steamers and 20 centesimi (\$0.0386) to sailing vessels.

Bounty mileage limits were placed at 40,000 miles per year on steamers of 12 to 15 knots and not to exceed 50,000 miles on steamers having a speed above 15 knots. The maximum for sailing vessels was fixed at 10,000 miles.

LAW OF MAY 16, 1901

The law of May 16, 1901, carried forward some of the previous laws and made further modifications in the bounty provisions. Ships of foreign construction were excluded from bounty privileges, as also were ships owned by interests which directly or indirectly entered into agreements to artificially increase freight or passenger rates to or from Italian ports.

The new rates were 45 centesimi (\$0.08685) per gross ton per 1,000 miles for steamers and 13 centesimi (\$0.025) per gross ton per 1,000 miles traveled for sailing vessels. These grants were to be made to steamers until 15 years had elapsed from the date of their construction and on sailing vessels until the thirtieth year of operation regardless of the time limit established by the law of 1896.

Total annual mileages upon which navigation bounties could be claimed could not exceed 30,000 for steamers and 12,000 for sailing vessels. The entire navigation bounty for the year was to be divided between vessels in proportion to their gross tonnage and the number of miles actually run. The total bounty authorized by this law was 8,000,000 lire (\$1,544,000) annually for the years 1901-2 to 1905-6. Steam tonnage declared after September 30, 1899, and thereby entitled to the bounty, could not exceed 40,000 tons in any fiscal year until the expiration of the law of July 23, 1896.

LAW OF JUNE 28, 1906

The law of June 28, 1906, extended the enactments of July 23, 1896, and May 16, 1901, with certain modifications, to June 30, 1908, and stipulated that any sums remaining of the credits for the fiscal years 1905-6 and 1906-7 were to be used exclusively for the payment of subsidies to steamships declared since September 30, 1899, maintaining an average speed of 15½ knots on a full-loaded 12-hour trial trip. This provision apparently made possible an expenditure for bounties in excess of the maximum of 8,000,000 lire (\$1,544,000) for at least two years.

Unexpended credits voted for 1907-8 were to be covered back into the treasury without deduction for customs drawback on construction and repair materials on which payment of duty had not been made prior to June 30, 1908. The new law reenacted the limitation of 8,000,000 lire annually for all bounties.

The laws of June 16, 1907, and June 13, 1910, extended the provisions of existing laws until June 30, 1910, and June 30, 1911.

LAW OF JULY 13, 1911

The law of July 13, 1911, was the third principal Italian subsidy law, and was enacted for a 15-year period. It did not materially modify the navigation-bounty system. The provisions of the law of July 23, 1896, as modified by the law of May 16, 1901, were to govern and remain in force for all ships qualifying for navigation bounties at the time of passage of the new law, maintaining the 15-year and 21-year age limits on steamers and sailing vessels respectively.

Expenditure for all purposes under the new act and the administration thereof in any fiscal year from 1911-12 to 1925-26 was set at

a maximum of 6,200,000 lire (\$1,196,600). Unexpended annual balances, however, were to be carried forward. If the maximum established amount proved insufficient, the Government was given the power, subject to the approval of the superior council on the merchant marine, to limit the tonnage entitled to participate in the construction bounties.⁵

LAW OF JUNE 22, 1913

On June 22, 1913, an act was passed for a 10-year period beginning July 1, 1913, established a new form of bounty—an annual payment equal to 2½ per cent of the value of the vessel—in favor of cargo vessels. Ships ineligible to its provisions included those more than 20 years old and having lower than first class rating in approved classification societies; those engaged in the transportation of emigrant or other passengers; those making voyages in the service of lines receiving other State aid or whose routes were limited in whole or in part to those followed by a subsidized line; vessels making voyages of a total length of less than 500 miles; pleasure craft; and vessels entitled under article 4 of the law of May 16, 1901, to navigation bounties, so long as such bounties were paid.

Vessels eligible to bounties in full amount were to be operated at least 160 days annually; if operated for a less time, the bounty was to be reduced proportionally. Vessels were required to be of at least 1,000 gross tons and of first class ratings and were subject to requisition in case of public necessity.

For purposes of establishing the value of the ships the Minister of Marine or a commission appointed by him was authorized to take as the basic value the contract building price less 4 per cent for each full year from the time of launching. Accordingly, the bounty was to be reduced annually until the vessel became 20 years old, when the bounty, by limitation, stopped altogether.

To carry out the provisions of the law 2,300,000 lire (\$443,900) was authorized annually. In case the annual claims exceeded the authorized amount plus any unexpended balance carried forward from a previous year, such excess was absorbed by a proportional reduction of the several claims made. A 5 per cent deduction for the personnel pension fund of the Italian merchant marine was allowed.

Between 1886 and 1914 Italy paid out in navigation bounties \$15,575,000—\$11,229,000 to steam and \$4,346,000 to sailing vessels.

CONSTRUCTION BOUNTIES

The ship-construction bounty system of Italy rests upon the lack of native ore and coal deposits, the two elemental requirements for the production of the modern vessel. So long as the greater part of merchant shipping consisted of wooden sailing vessels, the shipbuilding and shipping industries of Italy prospered. With the replacement of wooden by iron and steel vessels, Italy had to face an entirely different set of circumstances.

⁵ Most of the laws providing navigation bounties provided for construction bounties also. See pp. 272-273.

LAW OF DECEMBER 6, 1885

In 1881 an Italian parliamentary commission was appointed to study the shipping situation in Italy, with the result that on December 6, 1885, a law was enacted which provided for construction and repair, navigation, and coal-transportation bounties. The navigation-bounty provisions of this law have been discussed. (See p. 272.) Construction bounties amounted to 15 lire (\$2.90 at par of that day) per gross ton on wooden hulls, 60 lire (\$11.58) per gross ton on iron or steel hulls, and 30 lire (\$5.79) per gross ton on "floating equipment" (such as docks and scows) not subject to registration. On power plants 10 lire (\$1.93) per horsepower was authorized as a bounty on new engines and 6 lire (\$1.16) per 100 kilos (220.46 pounds) weight on new boilers. On repairs, 11 lire (\$2.12) per horsepower was allowed on engines and 6 lire (\$1.16) per 100 kilos on boilers. Bounties on power plants were increased 10 to 20 per cent in the case of vessels that were convertible into war cruisers and possessed a speed of 14 knots and a cruising radius of 4,000 miles at 10 knots.

DECREE OF MARCH 22, 1888

Under the tariff act of July 14, 1887, import duties on shipbuilding materials were increased. Hence by royal decree of March 22, 1888, ship-construction bounties were likewise raised and the principle of paying bounties for the building of war vessels contained in the original law of 1866 was reestablished. (Bounties for the construction of war vessels had not been granted under the act of 1885.) By the decree of March 22, 1888, bounties on the construction of merchant ships were granted at the rate of 17.50 lire (\$3.38) per gross ton on wooden hulls, 77 lire (\$14.86) per gross ton on iron or steel hulls, 37.50 lire (\$7.24) per gross ton on docks, barges, scows, etc. On power plants 12.50 lire (\$2.41) per horsepower was granted on new engines and 9.50 lire (\$1.83) per 100 kilos on new boilers, while on repairs 9.50 lire per horsepower was granted for engines and 11 lire (\$2.12) per 100 kilos for boilers.

On warships the 1888 decree allowed 50 lire (\$9.65) per gross ton on the larger ships and 37.50 lire (\$7.24) on small craft. On engines for warships, 8.50 lire (\$1.64) per 100 kilos was granted; 9.50 lire (\$1.83) per 100 kilos for boilers; and 11 lire (\$2.12) per 100 kilos for auxiliary equipment.

LAW OF JULY 23, 1896

Upon the expiration of the 10-year period of effectiveness of the law of December 6, 1885, it was extended (by the law of December 26, 1895) to June 30, 1896, and then was superseded by the law of July 23, 1896, which restricted bounties on other than iron or steel construction. Thus the bounty of 77 lire (\$14.86) per gross ton for metal and 17.50 lire (\$3.38) per gross ton for wooden hulls authorized by the decree of 1888 remained effective, but no bounties were granted to vessels with iron frames and wood planking. No vessel could participate in the bounty unless it had a first class rating in approved classification societies; bounty rates were reduced by 10 per cent if more than one-fourth of the materials used in the construction of

iron or steel hulls was of foreign production, and no vessels were eligible to bounties unless exclusively engaged in navigation on seas, lakes, or rivers, thus eliminating floating-equipment bounties.

The power-plant bounties remained as under the 1888 law and were payable directly to the shipyard if no stipulation to the contrary was made by the person ordering the ship.

No bounties were granted for the construction of warships ordered by foreign governments, but customs duties on materials used in their construction were refunded.

Warships built for Italian Government account might have the import duties on materials included in the price of the ship. Likewise if any changes were made in the customs duties on materials for warships during the operation of the law the Government was given the power to modify bounty rates proportionally.

DECREE OF JUNE 17, 1900

Modification of the law of July 23, 1896, was made by the royal decrees of June 17 and November 16, 1900. These decrees contain the first example of flexible bounties based upon vessel speed and form the basis for the underlying principle contained in the decree of July 23, 1929. (See p. 305.)

By the provisions of these decrees, instead of a flat bounty of 77 lire (\$14.86) per gross ton for iron and steel vessels, a rate of 45 lire (\$8.69) per gross ton was granted for iron and steel steamships with a speed less than 12 knots and for all iron or steel sailing vessels, 50 lire (\$9.65) per gross ton for steamships of 12 to 15 knots, and 55 lire (\$10.62) per gross ton for those of more than 15 knots. The previous rate of 17.50 lire (\$3.38) per gross ton for wooden hulls was reduced to 13 lire (\$2.51) per net ton.

Bounties on steamers could not be granted for more than 20,000 gross tons in the period between November 16, 1900, and June 30, 1902, nor for more than 20,000 gross tons during the fiscal year 1902-3, and not for more than 40,000 gross tons in any year thereafter during the operation of the law of July 23, 1896. In this manner the total amount of new steamer tonnage entitled to bounties under this law was fixed at 200,000 gross tons and the maximum expenditure at 10,000,000 lire (\$1,930,000).

LAW OF MAY 16, 1901

The law of May 16, 1901, continued some of the provisions of the decree of November 16, 1900, abrogated the decree of June 17, 1900, and modified the provisions of the law of July 23, 1896. Vessels which had been the object of bounty declarations on or before September 30, 1899, were to remain under the construction-bounty provisions of the law of July 23, 1896.

Bounty rates to steamships of at least 400 gross tons and to sailing vessels of at least 100 gross tons were limited to a single payment after the vessel was completely fitted out, and these rates were applicable only on vessels launched between May 16, 1901, and June 30, 1907. Bounty rates to iron and steel steamers were fixed at 60 lire (\$11.58) per gross ton for vessels launched between May 16, 1901, and June 30, 1903; 50 lire (\$9.65) upon vessels launched from July 1,

1903, to June 30, 1905; 40 lire (\$7.72) from July 1, 1905, to June 30, 1907; 30 lire (\$5.79) from May 16, 1901, to June 30, 1903; and 20 lire (\$3.86) per gross ton from July 1, 1903, to June 30, 1905. Ten lire (\$1.93) per gross ton from July 1, 1905, to June 30, 1907, was authorized for wooden sailing vessels.

Importation of shipbuilding materials was provided for by compensation to offset import duties. This allowance was 35 lire (\$6.95) per gross ton for iron or steel hulls and 13 lire (\$2.51) for wooden hulls, applicable to vessels built after September 30, 1899. Constructors of vessels built after September 30, 1899, could import free of duty one-third of the metals necessary for the construction of the hull but not in excess of 160 kilos (352.74 pounds) per gross register ton. A 10 per cent reduction in customs-duty compensation was made if more than one-third of the materials used in construction of hulls was of foreign manufacture. Customs-duty compensation was to be increased or diminished proportionally in accordance with any subsequent change in import rates.

No construction bounties were granted under this 1901 law on vessels built for foreign account, but imported materials were admitted free of duty temporarily, under the tariff phases of the act. Likewise, import duties were waived on materials imported to be used in the construction of warships for foreign-government account instead of refunding import duties collected on such imports, as was the case under the law of July 23, 1896. New foreign-built boilers and engines to be placed on warships and materials for iron or steel lighters for export were admitted free of duty. A limit of 40 lire (\$7.72) per gross ton was placed upon imported materials that might be admitted free. Power-plant bounties were not modified by the law of May 16, 1901.

LAW OF JUNE 28, 1906

The law of June 28, 1906, modified and extended the operation of the laws of July 23, 1896, and May 16, 1901, to June 30, 1908. By this enactment the lump-sum construction-bounty grants of 40 lire per gross ton on iron and steel steamers and 10 lire per gross ton on wooden sailing vessels, effective from June 1, 1905, to June 30, 1907, under the provisions of the law of May 16, 1901, were extended for one year.

Two more laws, those of June 16, 1907, and June 13, 1910, extended the provisions of existing laws until June 30, 1910.

LAW OF JULY 13, 1911

On July 13, 1911, a law was enacted which was the third and last of a series of principal subsidy laws prior to the law of 1926, the other two being the laws of December 6, 1885, and July 23, 1896. The 1911 law, enacted for a 15-year period, was periodically modified because of war conditions.

The 1911 enactment authorized construction bounties of 55 lire (\$10.62) per gross ton on iron or steel merchant vessels, dredges, and tugs if launched during the first five years of the law, 50 lire (\$9.65)

if launched during the second five years, and 45 lire (\$8.69) if launched during the last five years. Wooden sailing vessels were granted 10 lire (\$1.93) per gross ton.

Import-duty allowances on foreign materials for construction were provided by this law at 35 lire (\$6.76) per gross ton for iron or steel vessels and 15 lire (\$2.90) per gross ton for wooden vessels. Duty-free importation of materials was allowed up to one-fourth of the iron or steel necessary for construction of the hull, but such one-fourth must not exceed 120 kilos per gross ton for the entire ship. Duty reductions of 10 per cent were effective if the foreign material exceeded one-fourth of the total material used, irrespective of whether or not payment of duty exceeded that proportion. Provision was made for modification of allowances proportionally to changes in import-duty rates.

Vessels with iron frames and wooden planking, certain vessels in the Government service, pleasure craft, certain tugs and dredges, scows, and ferryboats were excluded from the bounty privileges of the 1911 law. On power plants, however, 15 lire (\$2.90) per indicated horsepower was granted on engines and boilers and auxiliaries, 17 lire (\$3.28) per shaft horsepower on steam turbines, 27 lire (\$5.21) per horsepower on internal combustion engines and accessories connected therewith, 12 lire (\$2.32) per 100 kilos for boilers and auxiliary equipment, and 13.50 lire (\$2.61) per 100 kilos for all other auxiliary apparatus. Bounties were not granted on power plants for vessels not themselves eligible to construction bounties or duty allowances.

Between 1886 and 1914 Italy paid out in construction bounties and bounties and drawbacks on materials some \$14,700,000—\$13,238,000 on construction and \$1,440,000 on materials.

COAL TRANSPORT BOUNTY

The law of December 6, 1885, granted a bounty of 1 lira (\$0.193) a ton on coal imported in Italian vessels from points beyond Gibraltar, if the quantity of coal carried was equal to at least three-fifths of the vessel's carrying space. This provision accounted for the movement of approximately 1,250,000 tons of coal between 1886 and 1896. Bounties paid during this period totaled \$236,000. The bounty was abolished by the law of July 23, 1896.

STATE SHIPPING EXPENDITURES PRIOR TO WORLD WAR

Details of Italy's annual expenditures for each class of bounties from 1886 to 1914 are shown in Table 53.

TABLE 53.—SUBSIDIES AND BOUNTIES PAID BY ITALY, 1886-1914

Year	Total		Postal-contract services, lire	Navigation bounties ¹		Construction bounties, ² lire	Bounties, etc., on repair materials, ³ lire	Coal transport bounty, ⁴ lire
	Lire	Equivalent in U. S. currency ¹		Steam vessels, lire	Sailing vessels, lire			
1886	12,677,965	\$2,446,847	8,865,285	883,445	2,495,515	110,845	150,875	172,000
1887	12,864,670	2,482,860	8,865,285	1,123,900	2,407,230	114,695	180,270	173,290
1888	12,898,005	2,487,385	8,865,285	1,069,600	2,263,910	250,540	279,200	162,470
1889	12,931,415	2,495,763	8,865,285	1,232,825	2,036,880	434,435	313,275	48,715
1890	12,599,260	2,431,657	8,865,285	1,736,115	1,518,270	1,071,540	305,545	102,505
1891	14,281,325	2,756,296	8,865,285	735,730	1,319,180	2,953,665	282,620	124,845
1892	12,521,245	2,416,600	8,865,285	692,970	1,215,640	1,250,075	329,690	167,585
1893	11,865,255	2,293,854	8,865,285	556,655	1,121,465	959,235	289,835	92,760
1894	13,015,460	2,511,960	10,067,355	322,115	1,075,600	1,036,930	936,010	118,440
1895	12,316,325	2,377,050	10,067,355	369,685	904,445	594,625	342,385	37,930
1896	13,089,585	2,526,300	9,575,130	1,043,150	880,110	1,177,650	388,700	19,845
1897	13,074,620	2,523,400	9,575,130	2,044,335	836,435	133,365	485,355	-----
1898	14,930,230	2,881,534	9,575,130	2,213,660	716,530	2,053,420	371,570	-----
1899	15,425,655	2,977,150	9,575,130	2,412,900	633,040	2,454,860	349,805	-----
1900	16,911,600	3,263,939	9,575,130	3,209,135	555,665	3,264,885	306,885	-----
1901	16,904,850	3,648,636	9,575,130	1,561,685	325,660	7,181,610	260,745	-----
1902	16,311,580	3,143,135	9,575,130	1,613,670	202,320	4,640,780	279,580	-----
1903	18,179,385	3,626,544	9,575,130	3,553,690	308,400	4,669,720	174,145	-----
1904	17,859,385	3,446,668	12,062,175	3,196,530	276,780	2,180,735	142,165	-----
1905	18,882,285	3,644,200	12,062,175	3,389,325	187,005	3,121,365	122,415	-----
1906	19,306,500	3,726,155	12,062,175	3,020,085	205,185	3,909,590	109,475	-----
1907	17,493,735	3,376,290	12,062,175	3,227,655	160,140	1,821,395	222,470	-----
1908	19,440,950	3,762,103	12,062,175	3,353,655	217,015	3,545,785	262,320	-----
1909	20,053,950	3,870,412	12,062,175	2,950,285	171,415	4,707,390	162,685	-----
1910	18,263,175	3,528,653	12,062,175	3,232,925	152,685	2,623,125	212,265	-----
1911	19,862,215	3,833,607	13,533,680	3,360,450	137,835	2,663,645	166,605	-----
1912	16,328,439	3,151,389	12,466,320	2,641,265	104,154	985,700	131,000	-----
1913	20,617,731	3,979,222	13,865,285	2,512,270	58,061	3,948,735	233,380	-----
1914	26,898,595	5,191,429	19,906,735	1,918,440	35,050	4,830,185	208,185	-----
Total	469,833,980	90,677,960	311,865,275	58,179,670	22,519,540	68,590,535	7,458,555	1,220,405

¹ Converted at the pre-war par rate of 0.193 to the lira.

² Includes only bounties paid in 1901-1910.

³ Includes bounties on boilers, engines, and auxiliary equipment, as well as on hulls; and for 1886-1896 bounty on floating material (galleggianti), such as docks, scows, etc.

⁴ Drawbacks only in years 1886 to 1900; chiefly fixed bounty in years 1901 to 1904; and bounty only in years since 1904.

⁵ Abolished by law of July 23, 1896.

The table is not all-inclusive. Administrative expenditures, many small provisions under the budgets, pension-fund appropriations, and certain direct outlays such as contributions of public funds toward the reduction of interest charges on loans made to shipping and refund of canal dues have been omitted. No approximation has been made of these amounts.

SUBSIDY SYSTEMS FROM 1914 TO 1922

CONTRACT SERVICES

On July 1, 1914, the Italian Government was paying in annual subsidies 25,880,400 lire (\$4,995,000) to 12 Italian steamship companies for maintaining 76 lines of communication—47 postal and 29 commercial—by means of 142 steamers of 286,300 gross tons, traversing annually on contract service 3,700,000 miles. Of this sum 21,000,000 lire (\$4,053,000) was expended on Italian ships employed solely in the Mediterranean, Adriatic, and Black Seas, either in the domestic trade of Italy or in trades in which Italian navigation and Italian merchants had played an important part since the Middle Ages. Nearly 5,000,000 lire was expended on Italian shipping

passing through the Suez Canal. On Italian vessels passing Gibraltar into the Atlantic, Italy in 1914 paid a subsidy of only 449,868 lire (\$86,825) to La Veloce Co. for its service from Genoa to Central America, where a considerable Italian population was engaged in raising fruit.

The subsidized Italian lines encountered difficulties from August, 1914; some were suspended, and the services of most of the others were reduced. On January 2, 1916, by royal decree the subsidy rates were increased 25 per cent and by successive decrees were doubled, then trebled; but, notwithstanding, in January, 1918, the principal lines, followed soon by the lesser lines, gave up their contracts because of war hazards, and their vessels were thereafter chartered and operated by their owners entirely for the account of the Government. On January 1, 1922, the 76 lines of 1914 had been reduced to 56 with only 95 vessels, 44 having been destroyed; the annual subsidized mileage had been reduced from 3,920,000 to 2,257,000.

In 1921 the Italian Government succeeded to the ownership of the Austrian Lloyd fleet, among other Austrian vessels. This fleet in 1914 drew from the Austrian Government 21,175,000 Austrian kronen (\$4,300,000) in subsidies, refund of Suez Canal dues, and other pecuniary benefits for the maintenance of 127 steamers on 43 lines, covering annually 3,760,000 miles, operating from Trieste to Istanbul (Constantinople), Alexandria, Smyrna, Beirut, Odessa, Batum, Bombay, Calcutta, and Japan. It is now operated by Italians under the corporate name Lloyd Triestino, with subsidies described later. (See p. 298.)

CONSTRUCTION BOUNTIES

At the outbreak of the World War the Italian Government was appropriating annually some 6,200,000 lire (\$1,200,000) for general ship construction and navigation bounties under the act of 1911. This sum was provided in the budget for 1913-14, and was a reduction in expenditure for the purpose named. Under laws amended by the act of July 13, 1911, the average annual expenditures for the previous 10 years had been 7,130,000 lire (\$1,376,000), of which 4,000,000 lire had been applied to construction bounties and rebates and bounties on imported shipbuilding materials, while 3,130,000 lire had been applied to general navigation bounties.

Construction of new vessels in Italy during this period was about 42,000 gross tons per year, so that the average bounty on hulls and machinery and rebates on materials and equipment approximated 100 lire, or \$18 to \$19, per gross ton built.

EARLY WAR POLICY IN SHIPBUILDING

Within a year after Italy entered the war the country's losses of shipping began to mount, and the building of cargo vessels in Italian yards as rapidly as possible became urgent. Italian shipbuilders in July offered to build 10 cargo ships for the Government at 600 lire (about \$93 at exchange of \$0.1554 to the lira) per dead-weight ton; but the Government declined, and resolutely through the war, with one or two unimportant deviations, held to its purpose not to build or buy ships for Government ownership. In January, 1915, a royal

decree, based on a law of 1912, had been issued authorizing the requisitioning of all Italian vessels for Government purposes at charter rates one-third below current market rates. In January, 1916, the Corsi law exempted from Government requisition for one year vessels to be built in Italy or bought abroad for Italian register, thus giving Italian fleet additions the benefit of market freight rates higher than the requisition rates.

Italy is to a great extent dependent upon imports for steel shipbuilding materials, and, this problem becoming acute, 45,000 tons of steel plates were secured from the British Government and allotted to a consortium of Italian shipbuilders at cost. In addition 42 old steamers of 92,000 gross tons were broken up to secure the materials.

THE ARLOTTA LAW

In August, 1916, the Arlotta law was passed. By its provisions Italian-built vessels registered before December 31, 1918, were exempted from income taxes and excess-profits taxes for five years. Vessels built abroad and registered in Italy before August, 1916, were exempted from the same taxes for three years. The law also admitted most imported shipbuilding material free of duty. In January, 1917, the law was extended to include vessels built in Italy and registered before December 31, 1919, and foreign-built vessels while under Italian registry.

Italian vessels registered before the war were held not entitled to these exemptions; but by royal decree of June 9, 1918, this position was somewhat modified, and the proceeds of Italian vessels sold after August 1, 1914, insurance paid on vessels lost since February, 1917, and income derived from the operation of vessels from January, 1916, were exempted from excess war-profits taxes, provided four times the amount exempted was spent on new vessels bought abroad or built in Italy.

Within 60 days after the issuance of the decree of June 9, 1918, it was given additional effectiveness by a guaranty of continued Government charter and absorption by the Government of the excess war cost of the vessel.

THE VILLA DECREE

Under the Villa decree of August 18, 1918, Italian-built vessels registered between January 1, 1920, and June 30, 1921, and vessels built abroad and registered in Italy before December 31, 1920, were entitled to a Government charter for two years from their registry, and on its expiration to amortization by the Government of the excess war cost of the vessel according to an elaborate schedule, and if the market value of the vessel should be less than the scheduled compensation the State should pay the difference. The Villa decree also provided that to secure the exemptions granted under the decree of June 9, 1918, the shipowner must spend on new vessels double, instead of four times, the amount of income exempted from taxation by that decree. The Villa law was thus, in effect, a shipbuilding bounty, which involved direct expenditure for the Government charter and on the final Government settlement at the end of the charter. It was a shipbuilders' decree, and one of its purposes was to provide employment for labor in shipbuilding after the end of the war.

Following the armistice, legislation began to be considered for limiting the laws of the war period. In this, however, the general policy of tax exemptions was continued and extended.

THE DE NAVA DECREE

The De Nava decree of March 30, 1919, was designed to bring to an end in two years the system of bounties provided by the Villa decree and by other war legislation for hastening shipbuilding, in Italy and abroad, for the Italian merchant flag. It prolonged, however, for 10 years the previous tax exemptions in the case of vessels built in Italy and registered before June 30, 1921, and for 9 years in the case of such shipping registered before June 30, 1922; the tax exemption on foreign vessels registered in Italy was fixed at 7 years for those less than 15 years old and at 5 years for those between 15 and 20 years old. The exemption of shipbuilding materials from customs duties was continued. The De Nava decree stipulated that the Government's obligation to charter new vessels for two years should end on June 30, 1921, and in the case of vessels registered after that date charters should be optional with the Government, but it provided a modified system of State payments to shipowners to compensate for excess war costs of shipbuilding.

All the war legislation contained different rates for passenger, cargo, and mixed passenger-and-cargo vessels as to charters and repayments for excess war costs and different rates when vessels were employed in the Mediterranean or beyond.

In some cases the De Nava decree would have been equivalent to a combined building and navigation lump-sum bounty of 1,700 lire (about \$73 at exchange of \$0.043 to the lira—the average rate for 1921–22) per gross ton. In July, 1922, the finance commission was advised that expenditures under the Villa and De Nava decrees for encouragement of shipbuilding were at the rate of 468,800,000 lire, based on the budget for 1921–22. The budget estimate for 1922–23 provided 308,000,000 lire for closing up payments incurred under the De Nava decree. The Mercantile Marine Bureau in 1922 computed that the total expenditures incurred or yet to be incurred under the Villa and De Nava decrees would be 1,155,900,000 lire, in return for which the Italian merchant marine would have acquired 165 new steamers of 1,054,000 tons dead weight, or at the rate of about 1,100 lire (say, \$50) per dead-weight ton. This computation did not include tax exemptions.

THE BELOTTI DECREE

On June 30, 1921, half the merchant tonnage building in Italy had not been completed and accordingly could not take advantage of the De Nava decree benefits. Furthermore, the labor situation in Italy was disturbing and many men were out of employment. Accordingly, the so-called Belotti decree was issued on September 25, 1921, granting to vessels 30 per cent completed on June 30, 1921, a bounty of 900 lire (about \$40) per gross ton, 180 lire to be paid when the vessel was completed and the remaining 720 lire in 24 monthly installments after the vessel had entered service. Such vessels were exempt for five years from income taxes, and vessels built in Venezia Giulia were exempt from industrial taxes; they were also exempt from possible Government requisition for four years.

The labor phase of the situation was met by conferring authority on the Minister of Industry and Commerce to transfer shipbuilding materials from one shipyard to another in order to secure steady employment and prevent shutdowns. In case work was not continuous and regular, the minister could declare the bounties and tax exemptions forfeited and could even demand restitution of bounties or exemptions already allowed, for which purpose the State had a preferred lien on ships built under the act.

The decree also provided that shipyards which had been established or enlarged between August 23, 1918, and October 31, 1920, were entitled to a depreciation not to exceed 68 per cent of their expenditures on establishment or development during the period.

Cargo boats built in new shipyards and registered between April 1, 1919, and June 30, 1921, and mixed cargo-and-passenger ships registered between July 1, 1921, and December 31, 1922, were allowed a subsidy of 130 lire (\$56 at \$0.043 to the lira) per gross ton; vessels built in enlarged yards were allowed 25 lire (\$10.75) per gross ton. To meet the bounties 125,000,000 lire was called for and to meet the depreciations allowed 25,000,000 lire, both sums to cover the period from July 1, 1921, to June 30, 1925. Expenditures under this act were included in the budget for 1922-23 with the estimate for the De Nava decree which it supplemented. The Belotti decree also authorized the Government to sell by auction or on private terms the vessels it still possessed as a result of the war.

STATE SHIPPING EXPENDITURES, 1917-1922

SUMMARY OF EXPENDITURES, 1917-1922

The budget estimates for 1922-23 were accompanied by a report of the Government's expenditures on shipping from July 1, 1916, to June 30, 1922. This report was supplemented by a comprehensive review of the Italian shipping situation from July 1, 1914, to January 1, 1922, submitted by the director general of the Italian merchant marine. The finance commission's statement of expenditures by fiscal years follows.

TABLE 54.—MARITIME EXPENDITURES OF THE ITALIAN GOVERNMENT, 1917-1922

Fiscal year	Department	Expenditures	
		Lire	Equivalent in U. S. currency ¹
General shipping:			
1916-17.....	Transportation.....	591,652,500	\$2,831,350
1917-18.....	do.....	1,822,200,000	236,886,000
1918-19.....	do.....	1,730,000,000	207,600,000
1919-20.....	Industry.....	1,177,034,000	94,162,720
1920-21.....	do.....	1,230,000,000	56,580,000
1921-22.....	do.....	1,140,000,000	49,020,000
Total.....		7,690,886,500	727,060,070
Navigation operations:			
1919-20.....	Industry.....	8,981,685	718,536
1921-22.....	do.....	13,347,000	673,921
Total.....		7,713,215,165	727,362,527

¹ Converted at the rate of \$0.14 for 1916-17, \$0.13 for 1917-18, \$0.12 for 1918-19, \$0.08 for 1919-20, \$0.046 for 1920-21, and \$0.043 for 1921-22.

These totals include Italy's expenditures during and after the war for ocean and Mediterranean transportation, by Italian and foreign vessels, of 25,700,000 tons of coal, 17,000,000 tons of wheat and other foodstuffs, and 7,500,000 tons of metal—in all, about 50,000,000 tons of imports essential to the Italian armies and civil population. Of the 7,600,000,000 lire expended, the Italian authorities estimate that 2,300,000,000 lire went to Italian vessels operated for Government account and under the various measures employed by Italy to keep its merchant fleet effective. The average freight paid by Italy for transportation was thus 150 lire per ton, and the authorities point out that the market charter rate during the five years was 185 lire for coal from England to Italy, 345 lire for coal and wheat from the United States, and 396 lire for wheat from Argentina. The head of the Italian Merchant Marine Bureau computed that on the basis of open-market freight rates Italy saved, under its own war legislation and allied cooperation, 3,000,000,000 lire on freights and bounties paid to Italian vessels alone. On the other hand, Italian shipowners were as vehement as British shipowners in their protests against the requisitions, rates, and control employed by the Government during and following the war.

REIMBURSEMENTS FROM OTHER GOVERNMENT DEPARTMENTS

The Italian Government recognized that these large amounts were not, in the main, properly chargeable to the Merchant Marine Bureau, but rather to the various branches of the Government for which the merchant marine rendered specific services. The sums reimbursed to the maritime transport service by other Italian departments up to the beginning of 1922 comprised 747,500,000 lire by the Food Administration, 279,000,000 lire by the Italian Navy, 104,000,000 lire by the War Department, 6,500,000 lire by the Agricultural Department, and 235,000,000 lire by the Coal Administration and State Railways—in all, 1,372,000,000 lire.

To this sum are to be added 4,073,000,000 lire for the Italian office at London with the Allied Shipping Control, 1,222,000,000 lire for the Italian office at New York, and 1,400,000,000 lire for shipping expenses incurred in Italy, of which 605,000,000 lire was for expenses of Austro-Hungarian ships, 215,000,000 lire for trans-Atlantic vessels, 130,000,000 lire for vessels on special requisition, and 450,000,000 lire for Italian steamers chartered for two years under the Villa and De Nava decrees, already mentioned—a total of 6,695,000,000 lire, and a grand total of 8,067,000,000 lire.

BUDGET ESTIMATES OF 1922-23

The budget estimates for 1922-23 provided 608,000,000 lire (\$27,360,000 at exchange of \$0.045)—against 1,140,000,000 lire (\$49,020,000 at \$0.043 to the lira) carried in the budget of 1921-22—for expenditures on shipping. The scope and purpose of the reduced appropriations were explained to the Parliament in July by Signor Peano, of the cabinet:

The budget estimates for 1922-23 provide 308,000,000 lire for amortization, interest, and commercial use of the vessels chartered by the State, 140,000,000 lire for the maintenance of the lines formerly subsidized by the late Austro-

Hungarian Government, and 160,000,000 lire for the voyages, by special requisition, of steamers subsidized by the State.

With the first amount stated, 308,000,000 lire, the obligation arising from the requirements of the De Nava decree of March 30, 1919, is completely discharged, inasmuch as it concerns the charter for two years of vessels constructed in Italy or acquired elsewhere within the limits of time determined by the decree itself.

With regard to the remaining charge of 300,000,000 lire for subsidized services (which later investigations reduced to 280,000,000 lire), it is to be noted that a partial set-off is to be found in the receipts of the ex-Austro-Hungarian lines for 1922-23 estimated at 90,000,000 lire, under the supposition that the receipts will not be below those of 1921-22. If the traffic be increased, reaching at least the figures for 1920-21, the expenses, taking into account the cheaper price of coal, could be reduced to 150,000,000 lire.

It is, in fact, the intention of the Government to put a stop to new expenses; to that end, with the proposed law it is now provided that no new maritime services on national account shall be instituted, that those now in existence shall not be enlarged, and that new charters and requisitions shall not be authorized by the department in charge of the merchant marine. The same projected law proposes to effect a revision of the agreements covering the working of steamship lines, with a view to reducing expenses and compensation for operation.

SUBSIDY SYSTEMS UNDER FASCISTI GOVERNMENT

PRELIMINARY PROGRAM, 1923-1925

Reorganization of the steamship services and subsidies of the Italian merchant marine was one of the earliest undertakings of the Mussolini administration. This was effected by means of 19 subsidy contracts in March, 1923, approved on April 26 by Royal Decree Law No. 1045. Previous to that time, during and following the World War, the Italian Government had operated the necessary communication routes, with a mileage in 1921-22 of 3,800,000 and at a cost of 298,000,000 lire (\$12,814,000 at average exchange for that year).

The contracts of 1923 called for a mileage of 3,525,000, a reduction of but 7 per cent, and subsidies of 147,300,000 lire, a reduction of 50 per cent. The services prescribed by the contracts of 1923 were mainly confined to the Mediterranean, while beyond Gibraltar and Suez the Mussolini subsidy system provided only for 1 voyage a month to Shanghai, 1 a month to Calcutta, 2 a month to Bombay, and 19 a year to Zanzibar, stopping en route at ports of the relatively new Italian colonies of Somaliland and Eritrea. The 1923 contracts were each for one year only, with the provision that they could be renewed subject to such changes as conditions made needful.

The services included were a combination of the pre-war Italian and the former Austro-Hungarian systems. Before the war those systems were in national as well as commercial competition, and various routes were duplicated, involving increased expenses and money loss to both nations. The Italian lines then traversed 3,920,000 miles for an aggregate subsidy of 26,000,000 lire, or \$1.28 per mile, the Austro-Hungarian lines 3,760,000 miles for an aggregate subsidy of 13,800,000 kronen, or \$0.75 per mile—in all, nearly 7,700,000 miles for total subsidies of \$8,000,000, or \$1.03 per mile.

In the years immediately following—in 1924, 1925, and as late as July, 1926—various changes were made in the subsidy system of 1923. New contracts for a term of years were concluded with steam-

ship companies, and the Government withdrew completely from owning and operating ships by transferring to private corporations the steamers owned and operated by the State Railways between Sicily, Sardinia, Tunisia, and the Italian Peninsula.⁶

PLAN OF 1926

The present system was put in effect on January 1, 1926, but as some of the contracts were not made until later the changes were not fully provided for until the budget for the fiscal year 1926-27 was approved in December, 1926. Under it the Italian Government is committed to a contract and subsidy program of approximately 4,500,000,000 lire (\$202,500,000 at 1926-27 exchange or \$236,700,000 at the stabilized rate of \$0.0526 to the lire) over a 21-year period.

Government aided and directed lines are divided into two groups, called "indispensable" and "useful" (see pp. 289 and 293). The "indispensable" group is defined as lines connecting by shortest routes and highest speeds the islands (such as Sicily and Sardinia, the Parthenopean, Pantelleria, Pontine, and Eolie groups) and colonies (such as in northern Africa) with the Italian mainland. The "useful" lines connect Italian ports with foreign ports.

Contracts between the Government and the "indispensable" lines are for 20 years, while those with the "useful" lines are for 5 and 10 years, the original contracts dating from January 1, 1926. The total annual subsidy originally authorized to the two groups was 125,000,000 lire for the "indispensable" services and 57,000,000 lire for the "useful" lines, the latter being subject to a 4 per cent annual reduction.

The personnel (officers and crews) of the subsidized ships must be approved by the Government, and the principal representatives of the subsidized companies in foreign ports must be Italian citizens, unless the Government permits exceptions. Sixty per cent of the stock of the companies must at all times be owned by Italians. The subsidized ships must be built in Italian yards unless, on account of onerous terms by builders, the Government waives this requirement; and the ships must be built, in part at least, of materials produced by Italian plants.

SUBSIDIZED AND "FREE" TONNAGE

The Italian subsidy system of 1926 is designed for particular types of ships on particular routes and serving particular purposes. For these reasons the effects of the system must not be looked for in the returns of the general progress of the Italian merchant marine. At that time the power-driven fleet of Italy numbered 1,132 vessels of 3,395,522 gross tons, of which 154 vessels, tonnage 865,840, were of

⁶ Return to private operation of the steamer lines administered by the State Railways was authorized by a decree of Dec. 31, 1923. The report of the State Railway Administration for the fiscal year 1924-25 shows that during this last full year of operation the postal lines earned 12,610,635 lire (\$529,647 at exchange of \$0.042) from passenger and baggage traffic, 2,827,079 lire (\$118,737) on cargo traffic, and 445,009 lire (\$18,690) on livestock. The total revenues of 15,882,723 lire (\$667,074) compared with total expenses of 85,554,000 lire (\$1,493,268), including certain amortization charges. A subsidy of 18,748,446 lire (\$787,435) was required for these lines for 1924-25. The commercial line for the same period earned revenues of 2,513,663 lire (\$105,574) and incurred charges amounting to 2,717,116 lire (\$114,119).

12 knots and above. The fleets then owned by the companies under subsidy contracts numbered 233 vessels of 768,603 gross tons, not all of which were in contract service; and their fleets of ships of 12 knots and above numbered 101 vessels of 432,783 gross tons.

The present-day commercial fleet of Italy is shown in Table 55.

TABLE 55.—ITALY'S POWER-DRIVEN COMMERCIAL FLEET ON JULY 1, 1931

Ownership	Total power-driven fleet		Ships of 12 knots and above	
	Number of vessels	Gross tons	Number of vessels	Gross tons
Owned by contractors for "indispensable" lines.....	126	220, 940	70	163, 529
Owned by contractors for "useful" lines.....	181	1, 062, 809	78	676, 956
Total owned by companies holding contracts.....	307	1, 283, 749	148	840, 485
Nonsubsidized fleet.....	794	1, 989, 776	15	89, 621
Total Italian power-driven fleet.....	1, 101	3, 273, 525	163	930, 106

Source: Lloyd's Register of Shipping.

The contracts under the 1926 law are all drawn to prevent undue competition with regular Italian lines which receive no subsidies—and which accordingly are under none of the obligations assumed by those subsidized.

FISCAL EFFECTS OF THE CHANGE

The fiscal effects of the system inaugurated by the budget for 1926-27 as compared with the system of 1923 will appear from the following computations, in which the contracts of 1923-24 have been placed as they would have been if the division between "indispensable" and "useful" lines had been in effect at that time:

TABLE 56.—EXPENDITURES FOR ITALIAN SUBSIDIZED LINES, 1924 AND 1927

Service	1923-24		1926-27		Increase in 1926-27—	
	Lire	Equivalent in U. S. currency ¹	Lire	Equivalent in U. S. currency ¹	In lire	In U. S. currency
BY CLASSES						
"Indispensable" services.....	89, 200, 000	\$3, 924, 800	127, 910, 000	\$5, 755, 900	38, 710, 000	\$1, 831, 100
"Useful" services.....	58, 100, 000	2, 556, 400	67, 753, 000	3, 048, 900	9, 653, 000	492, 500
Total.....	147, 300, 000	6, 481, 200	195, 663, 000	8, 804, 800	48, 363, 000	2, 323, 600
BY HOME PORTS						
Adriatic.....	69, 500, 000	3, 058, 000	100, 000, 000	4, 500, 000	30, 500, 000	1, 442, 000
West coast.....	72, 500, 000	3, 190, 000	70, 000, 000	3, 150, 000	2, 500, 000	40, 000
Sicily.....	5, 300, 000	233, 200	25, 663, 000	1, 154, 800	20, 363, 000	921, 600
Total.....	147, 300, 000	6, 481, 200	195, 663, 000	8, 804, 800	48, 363, 000	2, 323, 600

¹ Converted at the rate of \$0.044 to the lira for 1923-24 and \$0.045 for 1926-27, the averages for the fiscal years.

² Decrease.

³ See table 57, p. 291.

⁴ Includes, besides services covered in Table 59, 10,600,000 lire for services subsequently arranged to Australia and the east and west coasts of South America.

The "indispensable" services, it will be observed, received 60 per cent of the total subsidies granted in 1923-24 and 65 per cent of the 1926-27 allotments, and accounted for 80 per cent of the increase as between the two years.

CONTRACT SERVICES UNDER 1926 LAW

"INDISPENSABLE" SERVICES

Under the 1926 law there are 14 groups comprising 88 routes in the "indispensable" system, some purely local, others extending all around Italy, and others to the Mediterranean coast of Asia, Africa, and Europe. The changes since 1923 cover four-fifths of the increase in subsidies and point to the general effect of the new system, in consolidation of companies, increase in size and speed of vessels, and greater mileage.

The first of the two great changes effected on January 1, 1926, was the substitution of 20-year contracts for the temporary device of contracts subject to annual renewal. The 20-year contracts can, if desired, be modified in particulars every three years.

The second change was the obligation imposed, as a contract condition, upon all but one of the "indispensable" lines to begin at once the construction of new steamers, usually larger and faster than those with which the services were being performed. The minimum size of the new vessels on the longer and more important routes runs from 1,500 to 5,000 gross tons, while on the shorter and less important routes new steamers may be as small as 150 gross tons. The only "indispensable" route exempted from the new-ship requirement is the line which, with six steamers of 150 to 400 gross tons, connects Fiume with near-by islands and small ports. The other 13 "indispensable" routes were required to build in all, in three years, 48 steamers of a minimum of 88,000 gross tons. Virtually all the steamers on these routes carry passengers, and the minimum speed ranges from 10 to 18 knots.

CONTRACT PROVISIONS

The so-called "indispensable" lines consist, as just said, of 14 groups. Besides the provisions contained in their contracts, rules and regulations, covered in 36 articles, are set up. The nine quoted below are indicative of the detail in which the entire scheme has been worked out:

(1) Contracts may be entered into by bids or by private negotiation.

(2) Vessels assigned to subsidized lines may be expropriated by the Government and turned over to any new operator who may undertake a service, such vessels to be priced by five experts, two representing the retiring operators, two representing the new operators, and the fifth to be named by the president of the supreme court.

(3) Operators who are compelled to build new vessels for services may be authorized to issue bonds redeemable during the period of the concession, in amounts not exceeding three-fourths of the value of the

vessel nor more than 40 per cent (later increased to 60 per cent) of the subsidy due at the time authority is granted. (Decree Law No. 945 of May 24, 1926, art. 1.)

(4) All mail up to 30 per cent of the measurement capacity of the vessel is to be carried without charge. Moreover, all mail is to be collected from and delivered to post offices by the operator for his own account.

(5) All passengers, cargo, livestock, and valuables shall be carried at State-approved tariffs.

(6) The Government undertakes to provide permanent berths for the contract ships throughout the Kingdom.

(7) In national emergencies foodstuffs are to be carried at 50 per cent of regular rates.

(8) The Government may increase subsidies to meet any unusual conditions.

(9) Reduction in passenger tariffs: Free transportation to be granted to officials of the merchant marine administration on duty status as well as certain other officials and their families, including members of Parliament in going to or from sessions; missionaries; destitute nationals and shipwrecked sailors, upon consular request; 30 per cent reduction to Government employees and families, to officers and enlisted personnel of the military establishment, to students of nautical schools, to participants in congresses, fairs, and expositions, to groups of workers or farmers and families of 30 or over, to scientific expeditions, and to the consular corps, teachers, and their families; 50 per cent reduction to disabled war veterans who are going to Rome for special patriotic anniversaries; 75 per cent reduction to citizens traveling to take part in political elections, and to students from colonies or other foreign countries going to Italy to study.

SUBSIDY ALLOWANCES

The "indispensable" subsidy system of Italy is local in character and is comparable with no other system anywhere except perhaps certain local Japanese and Norwegian lines serving otherwise inaccessible communities. The Italian system is of interest primarily for the personal service it renders Italian citizens and for the amount of public funds devoted to control of these services in the short routes covered.

Table 57 summarizes the "indispensable" system as based upon 1926 subsidy allowances.

TABLE 57.—ITALY'S SUBSIDY AUTHORIZATION FOR "INDISPENSABLE" SERVICES UNDER LAW OF 1926

[20-year contracts from January 1, 1926]

Contracting company and route served	Annual subsidy		
	Lire	Equivalent in United States currency	
		At \$0.045 ¹	At \$0.0526 ²
Compagnia Italiana Transatlantica:			
Group I, Genoa-Naples.....	43,100,000	\$1,939,500	\$2,267,060
Societa Italiana di Navigazione Florio:			
Group II, Palermo-Sicily.....	23,650,000	1,064,250	1,243,990
Societa Anonima di Navigazione San Marco:			
Group III, Venice.....	16,400,000	738,000	862,640
By memorandum:			
Group IV, Ravenna.....	2,325,000	104,625	122,295
Societa Anonima Industrie Marittime:			
Group V, Ancona-Adriatic.....	4,570,000	205,650	240,382
Societa Anonima di Navigazione Puglia:			
Group VI, Bari.....	14,950,000	672,750	786,370
Compagnia Sarda d'Armamento e Navigazione:			
Group A, Sardinia.....	4,060,000	182,700	213,556
Societa Anonima Navigazione Toscana:			
Group B, Tuscan Archipelago.....	2,900,000	130,500	152,540
Societa Partenopea Anonima di Navigazione:			
Group C, Parthenopean and Pontine Islands.....	4,150,000	186,750	218,290
Societa Eolia Anonima di Navigazione:			
Group D, Eolie Islands.....	2,300,000	103,500	120,980
Societa Anonima di Navigazione La Meridionale:			
Group E, Egadi, Pelagie, Ustica, and Pantelleria Islands.....	2,025,000	91,125	106,515
Societa di Navigazione a Vapore Istria-Trieste:			
Group F, Trieste and near-by ports.....	3,200,000	144,000	168,320
Societa Anonima di Navigazione Marittima-Costiera:			
Group G, Fiume.....	3,300,000	148,500	173,580
Societa Anonima di Navigazione La Zaratina:			
Group H, Zara.....	980,000	44,100	51,548
Total annual authorization.....	127,910,000	5,755,950	6,728,066

¹ A average rate of exchange for fiscal year 1926-27.² Rate as stabilized by decree of Dec. 21, 1927.

Of the total tonnage owned in 1926 by these companies, the four principal ones owned 141,000 gross tons and received, according to the 1926 scale of allowances, 98,100,000 lire in annual subsidies, or about 700 lire (\$31 at exchange of \$0.045) per gross ton, for serving the Italian colonies in Africa, the Dodecanese Islands, and the Asiatic Mediterranean coasts.

Nine of the other original contracts, covering 30,200 gross tons, called for subsidies approximating 27,500,000 lire annually, or roughly 900 lire (\$40) per gross ton, for services by which Italian citizens have access to the mainland. In this group the vessels averaged only 670 gross tons each, while over the entire "indispensable" system the vessels averaged some 1,675 gross tons. Particulars of the remaining contract (Group IV, Ravenna) are not given.

Ten of the companies awarded "indispensable" contracts under the law of 1926 were allotted loans by the Consorzio di Credito (see p. 311) in the following amounts: Compagnia Italiana Transatlantica, 110,896,223 lire; Societa Italiana di Navigazione Florio, 110,896,223 lire; Societa Anonima Industrie Marittime, 4,443,315 lire; Societa Anonima di Navigazione Puglia, 34,199,986 lire; Compagnia Sarda d'Armamento e Navigazione, 4,363,491 lire; Societa Anonima Navi-

gazione Toscana, 4,903,403 lire; Societa Partenopea Anonima di Navigazione, 6,533,505 lire; Societa Anonima di Navigazione La Meridionale, 4,352,442 lire; Societa di Navigazione a Vapore Istria-Trieste, 2,181,745 lire; and Societa Anonima di Navigazione La Zaratina, 2,181,745 lire; a total of 284,952,078 lire, equivalent in American currency to \$12,822,844 at average exchange for the fiscal year 1926-27 or \$14,988,477 at the now stabilized rate of \$0.0526 to the lira.

Authorized increases

Royal decree No. 3103 of December 31, 1928, published in the *Gazzetta Ufficiale* of January 14, 1929, authorized increases in the annuities to be paid to subsidized shipping organizations of the "indispensable" system, as follows:

TABLE 58.—AUTHORIZED INCREASES IN ANNUITIES, "INDISPENSABLE" SERVICES, 1929-1947

Fiscal year	Subsidy increase		Fiscal year	Subsidy increase	
	Lire	Equivalent in United States currency ¹		Lire	Equivalent in United States currency ¹
1928-29.....	5,170,000	\$271,950	1938-39.....	20,845,000	\$1,096,450
1929-30.....	18,106,582	952,400	1939-40.....	20,845,000	1,096,450
1930-31.....	23,106,582	1,215,400	1940-41.....	20,845,000	1,096,450
1931-32.....	23,642,528	1,243,600	1941-42.....	20,845,000	1,096,450
1932-33.....	20,845,000	1,096,450	1942-43.....	20,845,000	1,096,450
1933-34.....	20,845,000	1,096,450	1943-44.....	20,845,000	1,096,450
1934-35.....	20,845,000	1,096,450	1944-45.....	20,845,000	1,096,450
1935-36.....	20,845,000	1,096,450	1945-46.....	17,845,000	938,650
1936-37.....	20,845,000	1,096,450	1946-47.....	7,422,500	390,425
1937-38.....	20,845,000	1,096,450			

¹ Converted at the stabilized rate of \$0.0526 to the lira.

The beneficiaries of the increases are companies operating Group II (Palermo), Group III (Venice), Group VI (Bari), Group H (Zara), Group B (Tuscan Archipelago), and Group E (Egadi, Pelagie, Ustica, and Pantelleria Islands). The Puglia Co., operating Group VI (Bari), is granted an increase from 14,950,000 lire (\$786,370 at stabilized exchange) a year to 19,950,000 lire (\$1,049,370);⁷ the Navigazione Toscana, operating Group B (Tuscan Archipelago), an increase from 2,900,000 lire (\$152,540) a year to 4,100,000 lire (\$215,660);⁸ and La Meridionale Navigation Co., operating Group E (Egadi, Pelagie, Ustica, and Pantelleria Islands), an increase from 2,025,000 lire (\$106,515) a year to 2,725,000 lire (\$143,355). Details on the other contracts are not at hand.

Increases for the Navigazione Toscana Co. are based upon increased costs of operating expenses and of new vessels, and subject to further revision every three years in accordance with fluctuation in the price of coal if such fluctuations exceed 15 per cent of the

⁷ Agreement of June 3, 1929, approved by Royal Decree No. 2139 of Nov. 25, 1929 (*Gazzetta Ufficiale* No. 299).

⁸ Agreement of Aug. 27, 1930, approved by law of Dec. 22, 1930 (*Gazzetta Ufficiale* No. 31, 1931).

average prices during the preceding three years. The operating company agrees to install radiotelephone systems on subsidized lines. The Meridionale contract was revised on substantially the same conditions with some changes in itinerary.

ROUTES SERVED

The "indispensable" contract services are divided into two broad classifications, comprising six groups numbered I to VI, requiring longer routes and larger ships, and eight groups lettered from A to H, termed local maritime services, which are operated in the shorter trades with smaller ships. Since the entire system contemplates services of a domestic character even though extending through the Suez Canal in one instance, the itineraries need not be given in full herein; they have been indicated in Table 57.

"USEFUL" SERVICES

The "useful" lines under the new subsidy system are those which connect Italy with foreign ports beyond Italian colonies on the Indian, Pacific, and Atlantic Oceans. The subsidies for these lines in 1926-27, the first full year of operation, were 67,753,000 lire (\$3,048,900 at \$0.045), this total including a nonallotted 10,600,000 lire in addition to the services shown in Table 59.

CONTRACT PROVISIONS

The agreements for "useful" services are so worded as to leave the contractors free to organize each service. The contract requirements are less rigorous than those for the "indispensable" lines, because it is considered of greater importance to operate a commercial line than to assure a service that may be of but general public interest. It is recognized that successful commercial operation must include an element of flexibility. Article 2 of each of the "useful" contracts, however, contains a paragraph which reads:

The Minister of Communications will have the option to modify the above routes when, in his absolute judgment, they may constitute an unlawful competition with preexisting national regular lines, whether private or subsidized.

The different agreements have a life of 5 or 10 years. The fleet provided for the "useful" group under the original agreements consisted of 131 vessels of 597,735 gross tons.

New construction

It may be added here that the contract with the Servizi Marittimi requires the construction in three years of one 17½-knot steamer over 11,000 gross tons for the mail line to Alexandria, and that the Lloyd Triestino Co. in 10 years must build at least 50,000 gross tons of steamers, each over 2,000 gross tons. Likewise the Adria Co. is required to build six 1,600-ton vessels in 10 years. The total construction requirements under contract obligations, therefore, approximate 70,000 gross tons.

Carriage of mails

All contractors on the "useful" routes must carry mails, whether originating in Italy or destined thereto, or whether originating in foreign countries or destined thereto. Such mail includes parcel-post packages and the handling of empty mail bags, the packages being limited to 22 pounds in weight. No additional compensation is granted the contractor for this service unless the space occupied by parcels sent from Italy exceeds 3 per cent of the capacity of the ship's hold, in which case extra compensation will be determined by the Ministry of Communications. All contracts concluded by the contractor with foreign powers for the handling of foreign mails must be approved by the Italian Postal Administration.

Actuarial information

Article 10 of all "useful" contracts specifies that the Ministry of Communications has the right to control the operation of the service in whatever manner may be considered most expedient. To that end the contractor compiles statistics covering the movement of passengers and cargo for each line and the various revenues received, which data he submits to the Ministry of Communications four times each year, together with any other documents required. Within six months of the closing of each fiscal year the contractor also submits to the Ministry of Communications, along with the balance sheets, a technical and economic report showing the distribution of revenue as well as the expenses for each line. Final payment of the amounts due the contractor is not made until all such documentary evidence is transmitted.

The subsidy is paid in monthly installments and in an amount of not over nineteen-twentieths of the total due, payment of the balance being deferred until audit of above-mentioned documents has been completed.

Expenses incurred by the personnel detailed by the Ministry of Communications for supervision of the operations of the services and of the audit of the required statements are for the account of the contractor.

On the "useful" contracts, the basic annual subsidy is reduced by 4 per cent. This reduction, however, may be offset by increased service, extension of lines, or by the establishment of new lines, and under such circumstances the 4 per cent deduction will not be made, provided the operations of the contractor equal the total initial annual mileage increased by as many times 4 per cent of the initial mileage as the number of years which have elapsed since the initial operation.

Penalty clauses

Upon undertaking the contract, the contractor furnishes Government bonds or securities or gives a fully insured vessel property mortgage to the Government in the amount of 10 per cent of the annual sum of the first year's subsidy. For nonperformance of a voyage the contractor loses the relative subsidy for the voyage; and if such failure occurs through his fault he incurs a fine of 1,000 to

5,000 lire. Likewise failure to call at a contract port entails a fine of 1,000 lire. For any other breach of the obligations of the contract the contractor incurs a fine of from 500 to 10,000 lire. Certain contracts carry a penalty clause of 100 lire per gross ton for failure to build vessels according to new-tonnage contract requirements.

National-defense requirements

Contract steamers on all "useful" routes (and on those "indispensable" routes where a foreign port is served) are required to carry an extra certified captain and an extra certified engineer as students. These officers are to be paid by the Government monthly from 100 to 150 lire and to enjoy the privileges of their rank. Each is bound to serve one year on the ship, and the company is required to provide a similar substitute in case the designated officer fails to report.

The subsidized steamers to Italian colonial ports and to foreign ports are alike required, when Italy mobilizes its forces, to give preference at embarkation to Italians called to the colors, and such Italians are entitled to transportation at a reduction of 30 per cent of the regular fare. This reduced fare is also allowed to Italians en route to perform their periodical military duties or returning to their homes after such service has been rendered.

SUBSIDY ALLOWANCES

An outline of the "useful" subsidy system of Italy as established under the provisions of the 1926 law is presented in Table 59.

TABLE 59.—ITALY'S SUBSIDY AUTHORIZATIONS FOR "USEFUL" SERVICES (ORIGINAL CONTRACTS) UNDER LAW OF 1926

[5 and 10 year contracts from Jan. 1, 1926]

Contracting company and route served	Frequency and speed	Fiscal year	Annual subsidy †			
			Original contract, 4 per cent annual reduction, lire	Contingent upon increased service, lire	Total available †	
					Lire	Equivalent in United States currency ‡
Societa Italiana di Servizi Marittimi, Rome: †						
1. Fast line to Egypt. From Genoa.....	22 voyages annually; 44 voyages when new vessels enter service. Speed, 17½ knots.	1925-26	5,100,000	204,000	5,304,000	\$198,800
		1926-27	9,998,000	612,000	10,610,000	469,000
		1927-28	10,888,000	1,072,000	11,960,000	604,800
		1928-29	11,728,000	1,584,000	13,312,000	673,280
2. Line to Syria. From Genoa.....	Every 2 weeks. Speed, 10 and 11 knots.....	1929-30	11,216,000	2,096,000	13,312,000	673,280
Postal line to Tyrrhenian-Constantinople-Danube. From Genoa.	Every 2 weeks; every 4 weeks to Danube. Speed, 10 knots.	1930-31	10,704,000	2,608,000	13,312,000	673,280
4. Commercial line to Tyrrhenian-Constantinople-Black Sea. From Genoa.	Every 2 weeks; every 4 weeks to Russian ports. Speed, 9 to 10 knots.	1931-32	10,192,000	3,120,000	13,312,000	673,280
		1932-33	9,480,000	3,632,000	13,112,000	673,280
		1933-34	9,168,000	4,144,000	13,312,000	673,280
		1934-35	8,656,000	2,200,000	10,856,000	469,000
		1935-36	4,200,000		4,200,000	172,800
Societa di Navigazione Marittima Italiana, Genoa: †						
1. Genoa-Bombay line. From Genoa.....	Once each month, passenger and cargo. Speed, not less than 12 knots.	1925-26	1,600,000	64,000	1,664,000	62,400
		1926-27	3,136,000	192,000	3,328,000	144,000
		1927-28	3,008,000	320,000	3,328,000	168,320
		1928-29	2,880,000	320,000	3,200,000	168,320
		1929-30	2,752,000	448,000	3,200,000	168,320
		1930-31	2,624,000	576,000	3,200,000	161,587
		1931-32	2,496,000	704,000	3,200,000	161,587
		1932-33	2,368,000	832,000	3,200,000	161,587
		1933-34	2,240,000	960,000	3,200,000	161,587
		1934-35	2,112,000	1,088,000	3,200,000	161,587
		1935-36	1,024,000		1,024,000	111,091
1. Societa di Navigazione Lloyd Triestino: †						
1. Fast line to Egypt. From Trieste.....	Weekly; 26 calls at Venice on inward voyage. Speed, 17 knots.	1925-26	12,925,000	617,000	13,542,000	604,075
		1926-27	25,333,000	1,651,000	26,984,000	1,163,250
2. Fast line to Egypt. From Venice.....	16 voyages annually. Fortnightly from Sept. 15 to May 15. Speed, 16 knots.	1927-28	24,299,000	2,685,000	26,984,000	1,359,710
		1928-29	23,265,000	3,619,000	26,884,000	1,359,710
3. Fast Levant line. From Trieste.....	Weekly. Speed, 12 knots.....	1929-30	22,231,000	4,653,000	26,884,000	1,359,710
4. Aegean and Black Sea line. From Trieste.....	Fortnightly. Speed, 10 knots.	1930-31	21,197,000	5,687,000	26,884,000	1,359,710
5. Syrian line. From Trieste.....	Weekly. Speed, 10 knots.	1931-32	20,163,000		20,163,000	848,520

6. Fast line to India. From Trieste.....	Monthly. Speed, 12 knots.	1932-33	19,129,000	6,721,000	25,850,000	1,250,710
7. Line to Far East. From Trieste.....	Monthly. Speed, 10 knots.	1933-34	18,095,000	7,755,000	25,850,000	1,359,710
		1934-35	17,061,000	8,789,000	25,850,000	1,359,710
		1935-36	8,272,000	4,653,000	12,925,000	679,855
IV. Società di Navigazione Libera Triestina, Trieste:						
1. Line around African continent. From Venice.....	9 voyages annually. Speed, 10 knots. Outward through Suez Canal.	1925-26	4,250,000	300,000	4,550,000	177,450
		1926-27	5,287,500	585,000	5,872,500	309,262
		1927-28	7,862,500	555,000	8,417,500	442,760
2. North Pacific line. From Venice.....	9 voyages annually between Venice and Vancouver, touching at San Francisco. Speed, 10 and 11 knots.	1928-29	7,437,500	525,000	7,962,500	419,327
		1929-30	7,012,500	495,000	7,507,500	394,864
		1930-31	3,400,000	240,000	3,640,000	191,464
3. Congo line. From Venice.....	4 round voyages through Gibraltar annually. Speed, 10 knots.					
V. Ditta D Tripcevich, Trieste:						
1. Morocco line. From Trieste.....	Twice a month. Speed, 9 knots.....	1925-26	1,250,000		1,250,000	48,750
		1926-27	2,450,000	50,000	2,500,000	112,500
		1927-28	2,350,000	180,000	2,500,000	131,500
		1928-29	2,250,000	250,000	2,500,000	131,500
		1929-30	2,150,000	350,000	2,500,000	131,500
		1930-31	2,050,000	450,000	2,500,000	131,500
		1931-32	1,950,000	550,000	2,500,000	131,500
		1932-33	1,850,000	650,000	2,500,000	131,500
		1933-34	1,750,000	750,000	2,500,000	131,500
		1934-35	1,650,000	850,000	2,500,000	131,500
		1935-36	800,000	450,000	1,250,000	65,750
2. Trieste-Tripoli line. From Trieste.....	Monthly. Speed, 9 knots.....					
VI. Società Anonima di Navigazione Marittima Adria:¹						
1. Italian ports. From Fiume.....	Weekly. Speed, 10 knots.....	1925-26	3,450,000		3,450,000	134,550
		1926-27	6,762,000	138,000	6,900,000	310,500
2. Adriatic-Sicilian-Tyrrhenian line. From Fiume.....	Every 2 weeks. Speed, 9 knots.....	1927-28	6,458,000	414,000	6,900,000	362,940
		1928-29	6,210,000	690,000	6,900,000	362,940
		1929-30	5,934,000	966,000	6,900,000	362,940
		1930-31	5,658,000	1,242,000	6,900,000	362,940
		1931-32	5,382,000	1,518,000	6,900,000	362,940
		1932-33	5,106,000	1,794,000	6,900,000	362,940
		1933-34	4,830,000	2,070,000	6,900,000	362,940
		1934-35	4,554,000	2,346,000	6,900,000	362,940
		1935-36	2,208,000	1,242,000	3,450,000	131,470
3. Adriatic-North of Europe line. From Fiume.....	3 times monthly. Speed, 9 knots.....					

¹ Does not include increases granted or new specifications required under subsequent renewals or extensions of contracts, nor contracts to Australia and to east and west coasts of South America not included in original list of contracts published by Ministry of Communications. These are referred to in the text.

² Converted at the rate of \$0.039 to the lira for 1925-26, \$0.045 for 1926-27, and \$0.0528 (stabilized rate) for remaining years.

³ Under the subsidy-contract terms the Società Italiana is required to construct one 11,000-ton 17½-knot vessel in 3 years; the Lloyd-Triestino, 50,000 gross tons in ships of not less than 2,000 gross tons each in 10 years; and the Società Adria, six 1,600-ton vessels in 10 years; a total of 70,600 gross tons.

ROUTES SERVED

Eastern Mediterranean and Black Sea

The original contract for services within the Mediterranean and Black Seas included a fast line from Genoa and Naples to Egypt, a line to Syria, a postal line and a commercial line to Istanbul and the Danube. These lines are operated by the Societa Italiana di Servizi Marittimi (Italian Maritime Service Co.) of Rome.

The fast fortnightly line to Egypt (22 voyages annually) was planned to alternate with another service from Trieste operated by the Lloyd Triestino, thus giving Italy a weekly fast mail service to Egypt. Under the contract provisions the contractor agreed to build an additional 11,000-ton, 17½-knot vessel for the Genoa-Egypt line. This vessel was to be completed by 1929, when the fortnightly service was to be increased to 44 sailings annually, and the subsidy increased by 2,600,000 lire for 1930-31, under the original terms of the contract.

By agreement of May 24, 1930, approved by law of January 8, 1931 (Gazetta Ufficiale No. 41, 1931), the itineraries have been modified as follows:

1. *Fast line to Egypt:* Genoa-Naples-Syracuse-Alexandria and return, with optional stop at Marseille; 44 trips per year to be made weekly; normal speed, 17½ knots.

2. *Loop Line A:* Genoa-Naples-Catania-Alexandria-Beirut-Tripoli-Istanbul-Naples-Marseille-Genoa; trips to be made every two weeks; normal speed, 11 knots on the Alexandria-Genoa section and 10 knots on the rest of the course.

3. *Loop Line B:* Genoa-Naples-Messina or Catania-Istanbul-Beirut-Alexandria-Naples-Genoa; trips to be made every two weeks; normal speed, 11 knots on the Alexandria-Genoa section and 10 knots on the rest of the course.

4. *Tyrrhenian-Danube mail line:* Genoa-Naples-Catania-Istanbul-Sulina-Galatz-Braila-Sulina-Istanbul-Naples-Marseille-Genoa, with option of extending the route to Black Sea points instead of stopping at Sulina and Danube ports, provided the total distance traversed annually is not decreased; trips to be made every two weeks; normal speed, 10 knots.

5. *Tyrrhenian-Black Sea commercial mail line:* Genoa-Naples-Messina or Catania-Istanbul-Odessa-Batum-Istanbul-Naples-Genoa; trips to be made every four weeks; normal speed, 9-10 knots.

6. *Tyrrhenian-Aegean commercial mail line:* Genoa-Naples-Messina or Catania-Piraeus-Saloniki-Smyrna-Candia (or Candia-Smyrna-Saloniki-Piraeus)-Naples-Genoa; trips to be made every 4 weeks; normal speed 9 knots.

Genoa-Bombay

Italian connections with India and the Far East are maintained through two contracts, respectively, from the west coast by the Societa di Navigazione Marittima Italiana of Genoa, operating a line between Genoa and Bombay, and from the east coast by the Lloyd Triestino of Trieste, operating more extended services.

Both contracts to Bombay are on a 10-year basis and call for monthly sailings with 12-knot ships. The line from Genoa provides also for certain Sicilian services with its commercial lines from Marseille to Karachi, or Sicilian services with the subsidized line in case the commercial line is discontinued.

Genoa to Australia

An Australian service originally undertaken jointly by the Lloyd Sabaudo and the Navigazione Generale Italiana companies from

Genoa to Australia and return for an annual subsidy of 2,680,000 lire each, fractionally reduced to 1,680,000 lire for the fifth year, was renewed for a 5-year period from January 1, 1931, for both companies at an annual subsidy of 3,500,000 lire each, based upon an allowance of 500,000 lire for each round voyage for 14 voyages annually. The sailings of each company are left to arrangement between the two contractors.⁹

The main base of present Italian connections by sea with Egypt and the Far East is Venice-Trieste. The contractor is the Lloyd Triestino (formerly Austrian), which, under the new 10-year contract, is required to build in that time 50,000 gross tons of steamers, each of over 2,000 gross tons.

As from January, 1929, the contract with the Government was renewed for 10 years, with the agreement to make 24 voyages yearly to Calcutta, and 12 stops yearly at the port of Birmania (6 on the outward and 6 on the return journey) and to improve the speed. To carry out this agreement four motor ships of 8,000 tons, capable of developing a speed of 14.3 knots on trial and 13 knots at sea, were ordered by the company, the first to be delivered in October, 1930, and the others to follow at short intervals.

Under a revised agreement of April 4, 1931, the contracting company must maintain a weekly 17-knot mail steamer from Trieste, via Brindisi, to Alexandria, a monthly 13-knot commercial service from Trieste and Venice to India, a monthly 11-knot commercial service from Adriatic ports to Shanghai, and a fast passenger line from Trieste to Shanghai, with extension to Yokohama. Vessels to Shanghai require a sea speed of 12½ to 13 knots, while vessels terminating at Yokohama are to have a sea speed of 16 to 17 knots.

Besides these lines the company operates a 10-knot weekly line from the Adriatic to Istanbul (Constantinople), a weekly 12-knot line to Istanbul and thence into the Black Sea, alternating between Danube and Russian ports, and another fortnightly 10-knot line to the oil port of Batum.¹⁰

In consideration of the additional services required of the contractor additional subsidies were authorized by Royal Decree Law No. 816 of June 18, 1931, as follows: Effective July 1, 1930, increases were 11,650,000 lire annually for the fiscal years 1930-31 to 1935-36 and 5,825,000 lire for 1936-37. This increases the original total annual authorization of 25,850,000 lire to an annual amount of 37,500,000 lire until 1935-36.

Around Africa

A long step toward the extension of Italian influence throughout Africa was taken in 1926 by the award of a "useful" subsidy contract for the circumnavigation of the whole African continent. The contract is for five years only, and the route is from Venice and Trieste, through the Suez Canal to the Italian African colonies, on to Durban

⁹ Lloyd Sabaudo agreement, April 22, 1931. Navigazione Generale Italiana agreement May 22, 1931. Both agreements approved by royal decree laws on June 18, 1931. Gazzetta Ufficiale No. 148, 1931.

¹⁰ Commercial Attaché Mowatt M. Mitchell, Rome, in a report dated June 20, 1930, states that new freight and passenger vessels for the Trieste-Shanghai and the Trieste-Bombay runs were to be placed in service, thereby increasing the service to 36 sailings annually to Bombay and to 24 sailings annually to Shanghai.

and Cape Town, and up the Atlantic coast to Walvis Bay, Las Palmas, and through the Strait of Gibraltar to Genoa and Naples and thence to Venice, the starting point. The route is 13,500 nautical miles, and as nine voyages must be made each year this contract calls for an annual mileage of 122,000. The required speed is 11 knots when at least five cabin passengers are carried; otherwise 10 knots.

The contract also requires a service down the Atlantic coast of Africa. From Venice, Trieste, Genoa, and Naples, four round voyages a year are required through Gibraltar and down the African coast, stopping at main ports to Libreville at the mouth of the Gabun River and up the Congo as far as Matadi in the Belgian Congo, a distance of 5,800 miles, and back by the same route to Venice, making the round voyage 11,600 miles, or a total yearly mileage of 46,400. The combined contract thus adds nearly 170,000 miles to the voyages of Italian subsidized ships on African routes.¹¹

The contract is made with the Libera Triestina Co., which from a smaller Trieste organization before the war has grown to be an important factor in Italian oversea trades. In 1930 its fleet comprised 12 steamers of 12 knots and over aggregating 71,252 gross tons and 20 other steamers of 132,574 gross tons, all but 6 of the vessels having been built within the past 10 years. The contract, accordingly, does not compel the immediate construction of new vessels.

North America

Even more striking than the round-Africa contracts is the obligation assumed in 1926 by the Libera Triestina Co. to make nine round trans-Atlantic voyages to the Pacific coast of North America a year. With steamers of the same speed as its African lines, the company's contract calls for voyages from Venice, Trieste, Naples, and Genoa through the Strait of Gibraltar and the Panama Canal to San Francisco and Vancouver and return to Venice, a distance for the round voyage of 20,000 miles, or 180,000 miles annually.

The three contracts of the Libera Triestina (each of which is for five years) thus involve an annual performance of 350,000 miles, for which the total subsidy in 1926-27 approximated 8,500,000 lire—about \$1.05 per mile at average exchange for that fiscal year or \$1.25 at the stabilized rate.

The all-around-Africa line and the trans-Atlantic lines to Vancouver prescribe only nine voyages annually. Provision is made in them, however, for an increase of three voyages in each contract, so that monthly voyages may be made if the services prove of real utility to the nation. If these additional voyages are performed, the company is to receive a subsidy of 100,000 lire (\$5,260) for each voyage, whether it be made on the trans-Atlantic round voyage of 20,000 miles to Vancouver or the all-around-Africa route of about 12,000 miles.

¹¹ According to Consul Howard A. Bowman, Trieste, Italy, May 3, 1930, the Libera Co. has concluded a new contract by which the service through Gibraltar to the Congo will be extended around Cape Horn and inward through the Suez Canal, making an opposite service to the service around Africa from Suez to Gibraltar.

South America

A monthly service by 12-knot, 6,000-ton vessels from Genoa, Marseille, Barcelona, to Barbados, Central America, through the Panama Canal to Peruvian and Chilean ports, and return, originally undertaken under an agreement of July 5, 1926, by the Navigazione Generale Italiana, was renewed under an agreement of May 22, 1931, approved by Royal Decree Law No. 819 on June 18, 1931. Under the terms of the new contract the Navigazione Generale Italiana agrees to provide a similar service with some elaboration for a subsidy of 500,000 lire per round voyage, or 6,000,000 lire (\$315,600) annually. The contract is for a term of five years beginning July 1, 1929.

The service to the east coast of South America calls for sailings by 11-knot, 4,000-ton vessels every two months from Genoa and Naples to Teneriffe, Bahia, Pernambuco, Para, and Manaus and return. This service is undertaken under a 5-year contract by the Cosulich Co.

North Sea

The system of 1926 also provides a subsidized line beyond Gibraltar from Fiume and Trieste to the North Sea ports, London, Rouen, Rotterdam, Antwerp, or Hamburg, which was not comprised in the 1923 contracts. This 10-year contract is performed by the Adria Co., and is in addition to the routes which it maintains circumnavigating Italy and Sicily. The subsidy of 6,000,000 lire in 1923 was increased to 6,900,000 lire in 1926-27, and the increase of 900,000 lire was presumably for the 36 voyages to one or more of the North Sea ports named and return to Fiume. From Fiume to Hamburg the distance is 3,300 miles, and somewhat less to the other ports. The new contract accordingly requires annual navigation of from 200,000 to 225,000 miles. The speed required is only 9 knots.¹²

CONSTRUCTION BOUNTIES UNDER 1926 LAW

Italy and Belgium, alone among European powers, received reparations ton for ton for shipping destroyed by submarine warfare.

Italy lost 218 steamers of 677,000 gross tons. When Italy entered the war 69 steamers of the Central Powers, aggregating 251,000 gross tons, were seized in Italian ports, but, of these, 42 were lost or allotted to other powers. The treaty of St. Germain required Austria and Hungary to surrender all their property in merchant ships and fishing boats without regard to size; from this source, under awards of the Reparations Commission, Italy had received up to July, 1922, 213 steamers of 598,000 gross tons.

EFFECT ON SHIPBUILDING

Italy is the only country which directly and immediately increased its shipbuilding facilities through the acquisition of steel-ship plants established before the war. Yugoslavia also acquired shipyards on

¹²According to the Scandinavian Shipping Gazette of Mar. 5, 1930, the subsidy granted to the Adria Steamship Co. has been increased by 3,250,000 lire, making in all a subsidy of 10,150,000 lire (\$533,890 at stabilized exchange) to that company.

the Adriatic, but before the war Serbia had not been a maritime power. With their independence the Baltic States—Finland, Latvia, Estonia, and Lithuania—acquired jurisdiction over former small Russian yards within their boundaries. The Schichau plants, where many German naval and merchant ships were built, are just outside the limits of the Free City of Danzig.

With the dissolution of the Austro-Hungarian Empire, Italy acquired the shipbuilding plants of Trieste and Monfalcone, where the Austro-Hungarian Navy and most of the ships of the subsidized Lloyd-Austriaco were built.

Italy's shipbuilding capacity has more than doubled. The largest pre-war output of the Italian yards was 67,000 gross tons in 1900; Austro-Hungarian yards on the Adriatic built 62,000 gross tons in 1913. By October, 1922, the shipyards under Italian jurisdiction were building 286,000 gross tons of merchant ships, of which about 130,000 tons were building in Trieste and Monfalcone.

Unlike the United States, the United Kingdom, France, Canada, and Australia, Italy did not use public funds to build a fleet of Government merchant ships; accordingly, the Government late in 1922 had only 51 ex-enemy ships of 158,000 gross tons to be disposed of to private shipowners, in addition to the pre-war Government fleet of 22 steamers of 58,000 gross tons operated as ferries in connection with the railroads.¹³

POSTWAR SITUATION

While the Italian Government was not confronted with the problem of disposing of a Government merchant fleet built under pressure at war prices, it had to solve the situation created by high Government charter rates and shipbuilding bounties which led shipowners and shipbuilders to enter upon an extensive building program. Most of the pre-war shipping legislation of Italy had expired by limitation or was soon to expire, and the Mussolini government in November, 1922, was faced with the need of adjusting the entire maritime policy of Italy in consonance with the results of the war.

During the war period, as has been stated, the provisions of the law of 1911 were temporarily set aside by the De Nava and other decrees. Upon the taking of office by the Mussolini administration 150,000,000 lire was appropriated to cover estimated expenditures under the law of 1911 for the three years ending in 1926, when the law would expire by its 15-year limitation. This sum, it was thought, would provide for the building of 480,000 gross tons of shipping during the short period which the 1911 law had still to run.

Acquisition of the former Austrian yards at Trieste and Monfalcone and the construction of new yards in Italy to meet war needs gave Italy 27 yards with more than 100 ways by 1923. The Government appropriation was allocated with a view to preserving the strongest and most efficient of the yards, while the Mussolini plan reduced by half the 308,000,000 lire which the former administrations proposed to apply to clear the Government of its obligations to shipbuilders and shipowners.

¹³ See footnote 6, p. 287.

BOUNTY PROVISIONS

The revised Italian bounty law of 1926, known as Royal Decree Law No. 865, took effect until July, 1938, though modified in 1929. While its scope is general, its application is restricted by the power vested in the Minister of Communications to determine what ships shall be entitled to its benefits within the limits fixed by annual appropriations. The law itself directs the minister to give precedence to ships building for the subsidized lines whose plans have been approved by him. He is authorized to deny the benefits of the law to any ship of which the hull is not 20 per cent complete or for which the contract for propelling machinery has not been placed within six months after he has approved the plans, if the ship is less than 6,000 gross tons; within 8 months if the ship is between 6,000 and 8,000 tons, within 11 months if the ship is between 8,000 and 12,000 gross tons, and within 14 months if the ship is over 12,000 gross tons.

The shipbuilding bounties are of two kinds—tariff bounties and construction, repair, and alteration bounties.

TARIFF BOUNTIES

The tariff bounties are designed for the benefit of Italian steel and metal manufacturers, to whom shipbuilders must pay higher prices for domestic shipbuilding materials. Under the law of 1926, an annual appropriation of 26,000,000 lire (\$1,368,000 at stabilized exchange) is authorized as a tariff bounty until July, 1938. A portion of the materials used may be imported free of duty. Thus, duty-free foreign materials for the construction of machinery up to a limit of 170 kilos (375 pounds) per indicated or shaft horsepower on steam engines or steam turbines and up to a limit of 200 kilos (441 pounds) per indicated horsepower on internal-combustion engines are allowed.

On the remainder of metallic materials required and produced in Italy bounty allowances to builders are authorized, subject to modification annually by the Minister of Communications, of 7.75 lire (\$0.41) per 100 kilos (220 pounds) for plates and shapes up to 50 kilos per indicated horsepower, and 20 lire (\$1.05) per 100 kilos on seamless steel tubing up to 10 kilos per indicated horsepower and on corrugated furnaces up to 5 kilos per indicated horsepower.

On boilers to furnish steam exclusively for auxiliary machinery and on spare or replacement parts for auxiliaries, a bounty of 11 lire (\$0.58) per 100 kilos is granted, and on auxiliary equipment not a part of the propelling unit itself a bounty of 12 lire (\$0.63) per 100 kilos.

Materials for hulls are admitted free of duty up to 480 kilos (1,058 pounds) per displacement ton for hulls on vessels of 100 displacement tons and upward. On other materials of Italian production a bounty of 7.75 lire (\$0.41) per 100 kilos for plates and shapes is allowed.

CONSTRUCTION BOUNTIES

Construction bounties are based upon the gross tonnage of the ship, the power of the propelling unit (measured by fuel consumption), and the weight of the engines, boilers, and auxiliaries.

Bounties are allowed on hulls of 32 lire (\$1.68 at stabilized exchange) per gross ton on iron and steel hulls, and 20 lire (\$0.58) per gross ton on reinforced concrete hulls, and 9 lire (\$0.47) per gross ton on wooden sailing vessels and on decked tugs of a gross tonnage not exceeding 150 or of not less than 90 horsepower.

The fourth section of the law prescribes that steel hulls must be so constructed, on plans approved by the general staff of the navy, as to permit the installation of guns of a maximum of 6-inch (152-millimeter) caliber for defense. For this purpose an annual appropriation of 5,000,000 lire (\$261,000 at stabilized exchange) is authorized up to July, 1938.

Power-plant efficiency is encouraged by the granting of bounties graduated according to efficiency as measured by fuel consumption per indicated horsepower hour. Taking as a base fuel oil of a density of not less than 0.890 at a temperature of 15° C., or coal consumption rates at one and one-third times the basic consumption for oil, the scale of bounties is as shown in Table 60.

TABLE 60.—FUEL-EFFICIENCY SCALE FOR SHIP POWER-PLANT BOUNTIES UNDER LAW OF 1926

Oil-fuel consumption per i.h.p. hour ¹	Construction bounty per i.h.p.	
	Lire	Equivalent in United States currency ²
Between 700 and 800 grams (1.543 to 1.763 pounds).....	16	\$0.84
Between 650 and 700 grams (1.433 to 1.543 pounds).....	18	.95
Between 600 and 650 grams (1.322 to 1.433 pounds).....	20	1.05
Between 550 and 600 grams (1.212 to 1.322 pounds).....	21	1.10
Between 500 and 550 grams (1.102 to 1.212 pounds).....	22	1.16
Between 450 and 500 grams (0.992 to 1.102 pounds).....	23	1.21
Between 400 and 450 grams (0.882 to 0.992 pound).....	24	1.26
Between 350 and 400 grams (0.772 to 0.882 pound).....	26	1.37
Between 300 and 350 grams (0.661 to 0.772 pound).....	28	1.47
Between 250 and 300 grams (0.551 to 0.661 pound).....	30	1.58
Between 200 and 250 grams (0.440 to 0.551 pound).....	32	1.68
Between 175 and 200 grams (0.386 to 0.440 pound).....	34	1.79
Not over 175 grams (0.386 pound).....	36	1.89

¹ Multiply by 1½ for coal fuel.

² Converted at the stabilized rate of \$0.0526 to the lira.

BOUNTY APPROPRIATIONS UNDER 1926 LAW

Appropriations for the various direct-aid provisions of the 1926 law were as given in Table 61.

TABLE 61.—ITALY'S CONSTRUCTION-BOUNTY AUTHORIZATIONS UNDER LAW OF 1926

Fiscal year	Total annual appropriation ¹		Building, repairing, etc., bounties, lire	Import-duty allowances, lire
	Lire	Equivalent in United States currency ²		
1926-27.....	60,000,000	\$2,700,000	34,000,000	26,000,000
1927-28.....	60,000,000	3,156,000	34,000,000	26,000,000
1928-29.....	60,000,000	3,156,000	34,000,000	26,000,000
1929-30.....	60,000,000	3,156,000	34,000,000	26,000,000
1930-31.....	57,000,000	2,998,000	31,000,000	26,000,000
1931-32.....	57,000,000	2,998,000	31,000,000	26,000,000
1932-33.....	57,000,000	2,998,000	31,000,000	26,000,000
1933-34.....	57,000,000	2,998,000	31,000,000	26,000,000
1934-35.....	54,000,000	2,840,000	28,000,000	26,000,000
1935-36.....	54,000,000	2,840,000	28,000,000	26,000,000
1936-37.....	54,000,000	2,840,000	28,000,000	26,000,000
1937-38.....	54,000,000	2,840,000	28,000,000	26,000,000

¹ Exclusive of a naval bounty of 5,000,000 lire (\$263,000) per year.

² Converted at \$0.045 to the lira for 1926-27 and \$0.0526 (stabilized rate) for remaining years.

The actual direct-bounty provisions of this law may be summarized, for all practical purposes, as 32 lire (\$1.68 at stabilized exchange) per gross ton for steel hulls, 16 to 36 lire (\$0.84 to \$1.89) per indicated horsepower on the propelling unit, 110 lire (\$5.79) per metric ton on auxiliary boilers, and 120 lire (\$6.31) per metric ton for auxiliary machinery.

MODIFICATIONS OF 1929

As an illustration of the futility of attempting to determine future conditions as they may affect shipping and of the constant modification of law necessary to meet new conditions, the changes made in the Italian construction-bounty law in 1929 may be cited. Exclusive of the war period, the Italian subsidy system has been subjected to no less than 14 changes of major scope in order to meet new developments since the enactment of the original law of 1866. On the whole, the ship-construction bounty system has been based upon the limited native coal and iron available in Italy and has been intended to equalize the cost differentials arising in essential basic materials which the country lacks.

THE SPEED FACTOR

Decree No. 1176, published in the Gazzetta Ufficiale of July 23, 1929, developed a new factor in the Italian system—that of speed. While leaving undisturbed the scientific base upon which the 1926 law rests, the new decree provided for additional construction bounties under a graduated scale according to the speed of the ship. The various elements that now enter into consideration in determining the extent of subsidies are size of ship, economy of power development, weight of materials, and speed.

The new decree provides for 14 gradations of speed. The rate of bounty granted to ships legally entitled to qualify for construction-bounty provisions is payable on a percentage basis, such per-

centage being applicable to the three factors laid down by decree No. 865 of May 16, 1926, a flat rate of 32 lire per gross ton on the hull, 16 to 36 lire per horsepower on the main power plant, and 120 lire per metric ton weight on auxiliary machinery.

The bounty-earning speed of any ship under the new provisions is to be determined upon the basis of average speed developed during a 9-hour trial run with the vessel immersed to a line half way between the water line and full-load line, the ship in all respects to be fully equipped and seaworthy. Fuel-consumption efficiency tests will be made during the last three hours of the trial run in order to determine the rate upon which basic bounties will be established.

	Increase, per cent of 1926 bounty
Between 14 and 15 knots.....	30
Between 15 and 16 knots.....	35
Between 16 and 17 knots.....	40
Between 17 and 18 knots.....	45
Between 18 and 19 knots.....	50
Between 19 and 20 knots.....	56
Between 20 and 21 knots.....	63
Between 21 and 22 knots.....	72
Between 22 and 23 knots.....	82
Between 23 and 24 knots.....	95
Between 24 and 25 knots.....	115
Between 25 and 26 knots.....	135
Between 26 and 27 knots.....	180
27 knots.....	235

Another bounty provision is based upon boilers used exclusively to supply steam to auxiliaries, on which a manufacturing subsidy of 11 lire per 100 kilos is effective; and on auxiliary equipment not a part of the main propelling unit, on which the bounty is 12 lire per 100 kilos. This amounts to \$5.78 per ton on such boiler equipment and to \$6.31 per ton as a direct bounty allowance on the manufacture of auxiliaries, and is designed to offset extra material costs and to encourage the construction of such units in Italy in place of purchasing them outright in foreign markets. The sum of these bounties will vary widely with the equipment of the vessel.

EFFECT OF SPEED BOUNTIES

Technical articles appearing in the *Marina Italiana*, of Genoa, are authority for the following calculations of the effect on construction costs of the new speed bounties. Taking the construction cost of a 10-knot cargo ship as 100, the construction cost of a 16-knot vessel of the same class is stated as 200, or double the cost of the 10-knot vessel. Due to the increased bounty for increased speed, the actual cost of the 16-knot ship as compared with the cost of the 10-knot ship is 194.85. The influence of the extra bounty will reduce the extra cost by 5.85 per cent.

If the cost of a 20-knot passenger ship is taken as a base, or 100, the cost of a 27-knot ship will be 177. Due to reduction caused by the extra bounty the actual cost will be 152.62. The influence of the extra bounty in this case will reduce the extra cost by 27.5 per cent.

It is thus apparent that while the new bounty provisions will have no effect on construction bounties received by vessels of 9 to 13 knots speed, and while the effect from 14 to 19 knots will be relatively small, the full force of the 1929 increases will become manifest in the construction of large, high-speed passenger liners.

EXAMPLES OF APPLICATION OF 1929 DECREE

Taking as an example a motor or steam driven combination passenger-and-cargo vessel of approximately 15,000 gross tons, of approximately 10,000 dead-weight capacity, of 10,000 to 13,000 indicated or shaft horsepower, a passenger capacity of 200 to 300, and a speed of 15 to 16 knots, the following will be the probable results in construction bounties:

The basic gross-ton bounty rate is 32 lire (\$1.68). The modified law provides that at a speed of 16 knots the construction bounty shall be increased by 40 per cent of the basic rate. The result, therefore, will be a formula of 32 (lire) \times 15,000 (gross tons) \times 1.40 (basis rate + increase) = 672,000 lire, or \$35,350.

On the power plant the results will vary with the fuel-consumption rate. Assume that the fuel efficiency of the power plant is slightly above 1 pound of oil per horsepower-hour. It will then be classified in the range of 500 to 549 grams per indicated horsepower-hour, which will entitle the propelling unit to bounties of 22 lire (\$1.16) per horsepower. If the total power be taken as 13,000, the result will be 286,000 lire, or \$15,043, which, increased by 40 per cent, will amount to 400,400 lire, or \$21,060. Thus a total of upwards of \$60,000 may accrue to the vessel as a construction bounty on hull and main propelling unit.

Since almost coincidentally with the promulgation of the new law unofficial announcement was made of the intention to construct two large, fast passenger vessels in Italy for operation in the North Atlantic trade, the effect of the law on vessels of the *Bremen* type will illustrate its probable workings for vessels in that category.

According to Lloyd's Register, the gross tonnage of the *Bremen* is 51,656. While the guaranteed or contract speed of the vessel was 26.25 knots, it is rated at 26 knots, next to the highest speed recognized by the new Italian law. Thus, in addition to the basic rate of 32 lire per gross ton, such a vessel would be entitled to an additional tonnage bounty of 180 per cent of the basic rate; 51,656 gross tons would result in a basic bounty of about \$87,000, which increased by 180 per cent, or \$156,600, will result in a total hull bounty of \$243,600.

The power plant of the *Bremen* is rated at 106,000 shaft horsepower at normal speed. The fuel efficiency is reported as 0.31 kilo (0.683 pound) of oil per shaft horsepower-hour for all purposes, including ship service plant. While this is not a true figure for the propelling unit alone, it will serve to establish the power-plant bounty rate upon the scale of 300 to 349 grams of fuel per horsepower-hour according to the Italian scale, or 28 lire (\$1.47) per horsepower, resulting in \$156,000 as the basic power-plant bounty. This increased by 180 per cent, or \$280,000, would result in a total of more than \$430,000 for the main propelling unit.

The hull of a vessel comparable with the *Bremen* will include approximately 22,000 tons in the plates, frames, angles, rivets, etc.

Under the basic Italian construction bounty law of 1926 480 kilos (1,046 pounds) are allowed free entry as hull material for each gross ton. This will account for about one-half of the weight of material. On the remainder manufactured in Italy, a bounty of about \$4.07 per metric ton is allowed. Accordingly, this will amount to approximately \$45,000.

STATE SHIPPING EXPENDITURES UNDER FASCISTI GOVERNMENT

Table 62 gives the authorized expenditures, for both contract services and construction bounties, for the period 1925-26 to 1946-47 under the original provisions of the 1926 law and contracts, and includes certain increases authorized by Royal Decree Law No. 3103, of December 31, 1928, but does not include subsequent increases allowed under renewals of short-term contracts or extension of services since then. The increases under Royal Decree Law No. 3103 referred to above are shown separately in Table 58, page 292, and cover, as stated, increases for "indispensable" services.

TABLE 62.—ITALY'S CONTRACT SUBSIDIES AND CONSTRUCTION BOUNTIES UNDER REORGANIZED SYSTEM OF 1926

Fiscal year	Total authorization		Contract services				Construction bounties			
	Lire	Equivalent in U. S. currency †	"Indispensable," lire	"Useful," 10-year contracts, lire	"Useful," 5-year contracts, lire	Total contract appropriation, lire	Tariff bounties, lire	Construction bounties, lire	Naval bounty, lire	Total construction appropriation, lire
1925-26.....	95,945,500	\$3,741,875	62,792,500	24,325,000	8,828,000	95,945,500	(²)	(²)	(¹)	(¹)
1926-27.....	200,663,250	11,729,850	128,083,077	48,650,000	18,930,173	195,663,250	34,000,000	26,000,000	5,000,000	65,000,000
1927-28.....	205,682,500	13,074,900	131,620,000	49,950,000	19,112,500	200,682,500	34,000,000	26,000,000	5,000,000	65,000,000
1928-29.....	271,044,500	14,288,500	185,405,000	51,250,000	19,980,500	206,644,500	34,000,000	26,000,000	5,000,000	65,000,000
1929-30.....	290,736,082	15,240,115	158,496,582	51,250,000	19,980,500	224,736,082	34,000,000	26,000,000	5,000,000	65,000,000
1930-31.....	284,082,890	14,942,780	169,183,390	51,250,000	11,869,500	222,082,890	31,000,000	26,000,000	5,000,000	62,000,000
1931-32.....	273,957,278	14,410,180	169,032,628	51,250,000	1,074,760	211,957,278	31,000,000	26,000,000	5,000,000	62,000,000
1932-33.....	209,485,000	14,174,915	156,235,000	51,250,000	-----	207,485,000	31,000,000	26,000,000	5,000,000	62,000,000
1933-34.....	209,485,000	14,174,915	156,235,000	51,250,000	-----	207,485,000	31,000,000	26,000,000	5,000,000	62,000,000
1934-35.....	209,485,000	14,017,115	156,235,000	51,250,000	-----	207,485,000	28,000,000	26,000,000	5,000,000	59,000,000
1935-36.....	263,635,000	13,867,200	156,235,000	48,400,000	-----	204,635,000	28,000,000	26,000,000	5,000,000	59,000,000
1936-37.....	238,010,000	12,519,325	156,235,000	-----	-----	179,010,000	28,000,000	26,000,000	5,000,000	59,000,000
1937-38.....	216,235,000	11,821,800	156,235,000	-----	-----	156,235,000	28,000,000	26,000,000	5,000,000	59,000,000
1938-39.....	156,235,000	8,217,960	156,235,000	-----	-----	156,235,000	-----	-----	-----	-----
1939-40.....	156,235,000	8,217,960	156,235,000	-----	-----	156,235,000	-----	-----	-----	-----
1940-41.....	156,235,000	8,217,960	156,235,000	-----	-----	156,235,000	-----	-----	-----	-----
1941-42.....	156,235,000	8,217,960	156,235,000	-----	-----	156,235,000	-----	-----	-----	-----
1942-43.....	156,235,000	8,217,960	156,235,000	-----	-----	156,235,000	-----	-----	-----	-----
1943-44.....	156,235,000	8,217,960	156,235,000	-----	-----	156,235,000	-----	-----	-----	-----
1944-45.....	156,235,000	8,217,960	156,235,000	-----	-----	156,235,000	-----	-----	-----	-----
1945-46.....	141,000,000	7,419,755	-----	-----	-----	141,000,000	-----	-----	-----	-----
1946-47.....	62,942,500	3,310,775	62,942,500	-----	-----	62,942,500	-----	-----	-----	-----
Total.....	4,561,694,500	236,659,230	3,184,650,577 († 184,633,210)	552,850,000 († 228,379,350)	100,193,923 († 35,003,270)	3,817,694,500 († 199,018,830)	372,000,000 († 19,808,800)	312,000,000 († 16,213,600)	60,000,000 († 3,118,000)	744,000,000 († 338,640,400)

† Converted at \$0.039 to the lira for 1925-26, \$0.045 for 1926-27, and \$0.0526 (stabilized rate) for remaining years.
 ‡ Included under the appropriation for 1923-1925.

ITALY

ITALIAN MARITIME CREDIT

Since 1915 Italian shipping finance has undergone several changes, based primarily upon the lack of capital caused by the war. The withdrawal of German and other capital that was invested in Italian enterprises before the World War caused such a financial stringency that the Government in 1914 was compelled to establish a consortium of Italian banks to supply credits to support important national industries for short periods. The consortium was not at first authorized to deal in maritime credits.

MARITIME-CREDIT PLAN OF 1916

In the autumn of 1916 it became necessary for the first time for Italy to supply credits (other than mortgage or lien) to Italian shipowners and shipbuilders to meet urgent national needs for the importation of food, coal, and supplies and to help make good the submarine destruction of Italian ships.

Two sources of credit were created almost simultaneously. The first of these was a private company with a capital of 100,000,000 lire known as the Italian Institute of Maritime Credit—not to be confused with the Maritime Credit Institute discussed on page 312—organized September 13, 1916, by four of the principal shipping companies (Navigazione Generale Italiana, La Veloce, Lloyd Sabauda, and Italia) and several others, for the purpose of extending loans to the steamship companies contributing to the credit company, which operated through the Banca Commerciale. The loans were to be guaranteed by the pledge of stock, bonds, and debentures of the shipping companies, and for a time the organization operated on a large scale within the limited circle to which its benefits were confined.

The second source of credit was provided by a decree of November 5, 1916, by which the Italian Government authorized the consortium of Italian banks that had been organized in 1914 to extend its operations so as to offer maritime credits. This measure proved insufficient under the conditions imposed by the decree, which limited such credits to increases in the merchant fleet (almost wholly new ships) and provided that an advance could not exceed 50 per cent of the value of the ship and that the total advances could not exceed 50,000,000 lire (\$7,500,000 at \$0.15 to the lira, the rate then current). Immediately it became apparent that this project was inadequate at a time when the costs of ship construction and operation were increasing heavily, and the Government proposed, but did not carry out, a new measure for ship mortgages and suspended the power of the consortium of Italian banks to issue maritime credits—a power that was later restored.

LOANS AGAINST GOVERNMENT SUBSIDIES

With the advent of the Mussolini administration the subject of maritime credits was taken up along with the revision of the whole system of subsidized Italian lines and shipbuilding bounties. By the decree of October 30, 1924, the Government authorized the owners of subsidized lines to contract loans not to exceed 40 per

cent of the subsidy guaranteed by the State. A part of the subsidy prescribed to guarantee these obligations had to be assigned to the Government fund of deposits and loans.

The decree of 1924 was modified by the decree of May 24, 1926, when the Government had rearranged the whole system of subsidized Italian steamship lines. This decree authorized the subsidized steamship lines to cede to financial organizations a part of the Government subsidy in order that the steamship lines could meet the expenses involved exclusively in the construction of new ships for their subsidized routes. The cession, however, could not exceed, during the first five years, 40 per cent of the subsidy due at the time, or three-fourths of the value of the ships pledged as security for the advance, or four times the paid-up capital. Within these limits the cession could equal three times the capital stock. The steamship companies had to pledge the ships they owned as a guaranty to the Government for the amount of the cession.

Even this decree proved inadequate in view of the cost of the ships in Italy, and to enable shipowners to obtain funds the decree of February 10, 1927, was issued, which increased to 60 per cent the amount of the Government subsidy which the steamship lines could cede to financial organizations supplying money for shipbuilding, and the other limits were fixed at four times the paid-up capital and three-fourths of the value of the ships pledged as security. The loans for "indispensable" steamship routes had to be repaid in 20 years and those for the "useful" routes in 10 years.

In 1926 Italy had begun an intensive campaign for monetary deflation, which made such heavy demands on Italian financial organizations that they could not supply the funds for the long-time loans needed by the steamship companies.

AMERICAN AND BRITISH BANKING CONSORTIUM

The Italian subsidized lines were hard pressed for funds with which to build the new ships required under the revised subsidy system. (See p. 293.) Various plans were proposed and abandoned, when, about a year after the ratification of the debt settlement with Italy by the United States Congress, the Italian Government negotiated a loan in London and New York through the Consortium of Credits for Public Works. The loan was arranged March 22, 1927; £1,600,000 was placed in London and \$12,000,000 in New York. The bonds are of two series, \$7,500,000 payable in 10 years and \$12,500,000 in 20 years.

As stated, on the part of Italy the loan was negotiated by the Consortium of Credits for Public Works, which is responsible to the British and American syndicates advancing the credits. The steamship companies have guaranteed to the consortium the payment, from their subsidies, to meet the interest and principal of the New York and London syndicates, of the amounts shown in Table 63, with interest at 7 per cent.

TABLE 63.—GUARANTIES TO ITALIAN CREDIT CONSORTIUM BY SUBSIDIZED SHIPPING COMPANIES TO COVER NEW YORK AND LONDON 7 PER CENT LOAN OF 1927

Company	Amount of guaranty	
	Lira	Equivalent in United States currency ¹
Compagnia Italiana Transatlantica, Rome.....	110,896,223	\$5,833,141
Societa Florio, Rome.....	110,896,223	5,833,141
Societa Anon. Industrie Marittime, Ancona.....	4,443,315	233,718
Societa Puglia, Bari.....	34,199,986	1,798,919
Compagnia Sarda, Genoa.....	4,363,491	229,520
Societa Navigazione Toscana, Leghorn.....	4,903,403	257,918
Societa Partenopea, Naples.....	6,533,505	343,662
Societa La Meridionale, Palermo.....	4,552,442	228,938
Societa Istria, Trieste.....	2,181,745	114,760
Societa Zaratina, Zara.....	2,181,745	114,760
Societa Italiana di Servizi Marittimi, Rome.....	43,113,427	2,267,766
Societa Lloyd Triestino, Trieste.....	90,147,107	4,741,739
Societa Adria, Fiume.....	21,497,865	1,130,788
Total.....	439,710,477	23,128,771

¹ Converted at the stabilized rate of \$0.0526 to the lira.

MARITIME CREDIT INSTITUTE

On July 5, 1928, further official measures were taken in respect of maritime credits. The first of these consisted of a modification of the Commercial Code, by which maritime-mortgage procedure was liberalized, as likewise were certain judicial fees and practices. The full text of the change in the Commercial Code was published in the Gazzetta Ufficiale of August 13, 1928.

The second provision consisted in the creation of a maritime-credit institute. This was done by Royal Decree Law No. 1817 of July 5, 1928, published in the Gazzetta Ufficiale of August 13, 1928. A ministerial decree of January 29, 1929, published in the Gazzetta Ufficiale of February 2, 1929, approved the by-laws in respect of the constitution, capital, operations, and general administration of the institute.

The institute is an interesting example of the joint employment of semiofficial and private funds under governmental regulation. Its purpose is to make loans within the limits prescribed by the law of July 5, 1928, to private enterprises of Italian nationality engaged in shipping, with a view to augmenting the national merchant marine and increasing maritime traffic. The institute is placed under the joint surveillance of the Minister of Communications, the Minister of Finance, and the Minister of National Economy.

The capital of the institute is 100,000,000 lire (\$5,260,000 at stabilized exchange), which may be increased in accordance with provisions of the statute. The original capital was subscribed by:

	Lira
Cassa depositi e prestiti (Deposit and Loan Institute).....	32,000,000
Cassa invalidi per la marina mercantile (Invalid Foundation [Pension Fund] for the Merchant Marine).....	20,000,000
Cassa nazionale assicurazioni sociali (National Foundation for Social Insurance).....	10,000,000
Banco di Sicilia (Bank of Sicily).....	10,000,000

	Lire
Banco di Napoli (Bank of Naples)-----	10,000,000
Istituto nazionale assicurazioni (National Insurance Institute)----	5,000,000
Istituto di credito delle casse di risparmio italiane (Credit Institute of the Savings Bank of Italy)-----	2,000,000
Cassa di risparmio di Genova (Savings Bank of Genoa)-----	2,000,000
Cassa di risparmio di Palermo (Savings Bank of Palermo)-----	2,000,000
Cassa di risparmio di Trieste (Savings Bank of Trieste)-----	2,000,000
Cassa di risparmio di Venezia (Savings Bank of Venice)-----	2,000,000
Assicurazioni generali (General Insurance)-----	1,000,000
Riunione Adriatica di Sicurtà (Adriatic Assurance Union)-----	1,000,000
Società di assicurazioni, già Mutua marittima nazionale (Insurance Association, formerly National Maritime Loans)-----	500,000
"Italia" Società di assicurazioni marittime, fluvial e terrestri ("Italia" Maritime, River, and Land Insurance Co.)-----	500,000
Total-----	100,000,000

The home office of the institute is in Rome. The institute may advance loans not to exceed 60 per cent of the market value of the vessel offered as security. Such loans may be made in Italian legal tender, in credits through one or more credit institutions, or in foreign currency. The vessel upon which a loan is advanced must be the property of the borrower and free of encumbrances. Additional security is provided by a special insurance policy, distinct from the regular marine policy, in favor of the institute and carrying guarantees covering the amounts loaned. The special insurance policy is effective only in respect of the interests of the institute. Establishment of the market value, upon which the extent of the loan is based, is intrusted to competent technical experts of the institute, who must also be able to evaluate the vessels for the Italian marine and aeronautical registers.

The institute is authorized to issue bonds in connection with loan operations, payable upon maturity of the loans or in special series. The total bond issues can not exceed ten times the subscribed capital, are valid for all purposes as corporation bonds, may be quoted on the bourse, may be used by the institute in operations in futures, and may be accepted as bond deposits required by public administrations.

GOVERNMENT CONTRIBUTION OF INTEREST

The direct-Government-aid feature of the Maritime Credit Institute is contained in the provisions covering contribution by the Minister of Communications of a certain part of the interest charges on loans. The principal provisions are: (a) Contribution of 1 per cent per annum of the interest charge on outstanding obligations covering vessels purchased from foreign countries; (b) contribution of 2½ per cent of the interest charge on vessels built in Italy. Such contributions are to be determined upon an amortization plan based upon equal annual payments for the period of the loan; no contribution of interest may be accorded for a greater period than 15 years; and the contribution ceases upon transfer of a vessel to foreign registry.

Contribution of interest is not available to (a) vessels in contract service, (b) vessels to be entered in contract service, (c) vessels to be constructed in accordance with contract requirements for contract service, (d) pleasure craft, or (e) vessels to be used officially by the Government.

Loan operations of the institute are limited to 400,000,000 lire (\$20,920,000) for 1928-29; to 300,000,000 lire (\$15,690,000) for 1929-30, and to 300,000,000 lire (\$15,690,000) for 1930-31. Any balance accruing between the total amount authorized for a year and the actual amount of loans advanced may be carried forward and added to the operations of the following year. The Minister of Communications is authorized to set aside a capital fund of 50,000,000 lire (\$2,600,000) from unexpended balances of funds authorized for construction bounties under the law of 1926, the law of February 1, 1923, and the law of July 13, 1911, from which to pay interest contributions for the three fiscal periods above stated.

The consortium of banks, previously referred to as organized in 1914 and authorized to extend maritime credits in 1916, was again admitted into maritime-credit operations by a royal decree law of October 4, 1928, subject to the regulations of the law of July 5, 1928. By the regulations covering the latter law, the Minister of Communications and the Minister of Finance may extend the interest-contribution provision to maritime operations of the consortium after May 1, 1928, under certain restrictions laid down by the institute and upon compliance with the mortgage provisions of the 1928 act.

PREFERENCES AND RESTRICTIONS

RESERVATION OF THE COASTING TRADE

The coasting trade of Italy has long been reserved for vessels flying the Italian flag. In view of the extensive coastline of Italy and the many populous cities located near the sea, the coasting trade was important, and its monopolization was therefore a valuable privilege.

The coasting trade of the nation proper is regulated by Law No. 355 of July 11, 1904, which restricts trade along the Italian coast, roads, and shores and the intraport trade to vessels of Italian nationality except where special treaties or conventions dispose otherwise. Trade between ports of the nation proper and those of the colonies is not restricted to Italian vessels although the contract service system effectively provides for carriage of this trade in Italian bottoms.

There are no regulations which govern the coasting trade between ports within the respective boundaries of Italian colonies except in the case of Tripolitania and Cyrenaica. Article 142 of the Mercantile Marine Code for Tripolitania and Cyrenaica, approved by royal decree No. 902, of June 22, 1913, restricts the transportation of merchandise from one port to another of the colony to Italian ships except where special treaties or conventions dispose otherwise.

No restrictions have been established on the transportation of merchandise and passengers between ports of one colony and ports of another colony.

EXEMPTION FROM FISCAL CHARGES

IMPORT DUTIES

Under the Italian customs tariff now in force free admission is granted to foreign-built merchant vessels and to dredges and decked tugs. Pleasure craft and ships for the Royal Navy pay an ad

valorem duty of 15 per cent upon importation; and undecked tugs and vessels for navigation by towing, or for use within harbors, roadsteads, lakes, lagoons, rivers, canals, and navigable waterways are assessed 10 per cent ad valorem.

Foreign materials required for construction or repair of iron or steel commercial or war vessels or floating equipment for foreign account, engines and boilers used in the construction of such vessels, as well as engines and boilers for foreign account, were temporarily admitted duty free by a law of 1911. Free entry of materials or machinery used in repair or alteration of vessels owned by foreign governments was limited to 40 lire (\$7.72) per gross ton. In lieu of other customs and construction bounties Italian shipbuilders could claim temporary free admission of foreign materials for vessels ordered by Italians. In the case of warships for the Italian Government, duties on foreign materials were accounted for in the price of the vessel. A bounty of 5 lire (\$0.965) per 100 kilos was granted on metallic materials used in repairs made in Italian shipyards on hulls and machinery, both domestic and foreign.

Under a drawback regulation issued January 28, 1914, temporary free importation was granted to "naval equipments, machines, boilers, and auxiliary apparatus, or their parts, on board of ships anchored in the harbor, which are intended to be repaired."

INCOME TAX

NEW VESSELS

Under article 8 of the law of 1926 merchant vessels entitled to its bounty provisions were to have the additional privilege of exemption from taxes on revenues earned by the vessel during the first five years of actual service. Vessels launched but not completed when that law terminates will be entitled to income-tax exemptions provided they enter active operation within 8 months from date of launching if they are cargo or sailing vessels, within 12 months if they are mixed or passenger vessels of not over 20,000 gross tons, and within 15 months from date of launching if they are passenger vessels of more than 20,000 gross tons.

To be entitled to income-tax exemption eligible vessels must be entered under the highest class of the Registro Italiano and must remain under the Italian flag for at least five years after their entrance into active operation. Likewise such vessel must conform to the provisions of article 4 in respect of installation of gun platforms.

Decree No. 1176, published July 23, 1929, extends exemptions from income taxes on earnings for five years more, thus making a total of 10 years as the income-tax exemption period for vessels entitled to construction bounties.

GENERAL SHIPPING PROFITS

Income-tax exemptions may result in effective aid. The rates of category B, the classification covering commercial net revenues, which were 18 per cent in 1925, were reduced to 16 per cent on January 1, 1927, and to 14 per cent on January 1, 1929.¹⁴

¹⁴ Carroll, Mitchell B.: *Taxation of Business in Italy*, p. 27; issued as Trade Promotion Series No. 82, by the Bureau of Foreign and Domestic Commerce, Washington.

Because of the increasing shipping competition of Greece and Yugoslavia, the Italian Government has allowed shipowners a greater latitude in the assessment of profits by applying a formula accepted by the Italian Shipowners' Federation, Vice Consul Howard A. Bowman, Trieste, reported in February, 1929. Instead of being determined at 14 per cent on the profits, taxation is assured automatically at this rate upon an assumed profit of 20 lire (\$1.05) per gross register ton per annum.

OTHER TAX-RELIEF ITEMS

In fixing the amounts of net taxable income the item of depreciation for maritime and rail transport has not been fixed.¹⁵ In principle, reductions on machinery depend upon its life. In general the rates are 5 per cent for hydraulic machinery and 8 per cent for steam or electrical machinery.

Companies and private firms with their principal seat in Italy and separately managed branches abroad or in Italian colonies having a tax system are not subject to tax in Italy on the profits derived by the branch nor on the salaries paid to employees in the latter (decree No. 1463 of August 12, 1927), provided they submit to the tax authorities regularly kept accounts and other documents necessary to prove the separate source of the income. Evidence of the tax paid abroad on the income of the branch is acceptable.¹⁶

Several double-taxation treaties have been negotiated by Italy. Reciprocal exemption of shipping profits as between Italy and the United States was effected by means of decree No. 340 of March 4, 1926, which corresponds to section 213 (b) (8) of the United States revenue act, 1926. The same exemption is offered by Italy to the shipping enterprises of all countries, on condition of reciprocity, by Decree Law No. 587 of May 7, 1925.

PREFERENTIAL RAILWAY RATES

No preferential railroad rates on goods for export on vessels flying the Italian flag are granted by the Italian railways, all of which are owned by the State.

REFUND OF CANAL DUES

The Societa Nazionale di Servizi Marittimi received a refund of the Corinth Canal dues paid by its vessels, in return for a reduction in freight rates on wine, oil, cheese, and cattle exported from Sardinia, and for a reduction of rates on the through rail-and-water service between the mainland and Sardinia, and for free carriage of mails. The sums refunded on this account were as follows: 1910-11, 196,965 lire (\$38,014); 1911-12, 182,671 lire (\$35,256); 1912-13, 191,393 lire (\$36,939).

¹⁵ *Idem*, p. 31.

¹⁶ *Idem*, p. 23.

JAPAN

ECONOMIC DEVELOPMENT AND SHIPPING

The entire development of the shipping and shipbuilding industries of Japan lies within the era of the steam-driven metal ship. The successive steps in this progress are defined by military events, but economic and natural conditions are conducive to maritime enterprises, and Japanese shipping undoubtedly would have developed greatly by force of the expansion of Japanese trade and industry alone. Military events and Government subsidies, however, accelerated the movement.

The adaptability of the Japanese to modern industrial and economic processes is well known. This adaptability was applied by the Government in dealing with its sea power. In so doing the Government kept always in mind the purpose of insuring to the nation sufficient sea power to support national requirements.

If Japanese national maritime progress and policy have shown singular lack of error, it must be remembered that Japan had the advantage of world maritime development and the experience of other nations for guidance, but credit must go to the Japanese race for the vigor, ambition, and unity of purpose which it displayed.

RENUNCIATION OF ISOLATION

The history of Japan provides the most outstanding example in modern times of the tradition that the history of civilization is the history of transportation and communication.

When in 1609 the Tokugawa Shogunate (hereditary ruling clan) confiscated all Japanese vessels of more than 50 tons owned by the feudal lords, and in 1635 prohibited the building of vessels of more than 50 tons, Japan was effectively isolated from the rest of the world. No one cared to venture overseas in small vessels even if permitted to do so, and foreign vessels were not allowed to enter Japan for any purpose.

For the next 200 years Japan lived by and within itself. It is recorded¹ that only five foreign vessels anchored in Japanese harbors during this period, namely, a Russian vessel at Hokkaido in 1778, a British vessel at Nagasaki in 1808, another British vessel at Uraga in 1822, and two United States vessels at Uraga, one in 1837 and another in 1847. That for a little more than two centuries comprised Japan's sea contact with the rest of the world.

The policy of isolation had been adopted following unfortunate contact with European emissaries and their vessels and was considered an effective barrier against exploitation in an age of exploitation and as a weapon of security against military aggression in an

¹ Industrial Japan, 1929, p. 260.

age of short-range military operations. The appearance of four steam-driven United States naval vessels with armament in 1853 convinced the Japanese that isolation was no protection against even the limited mobility of naval power of 80 years ago.

A result of the Perry expedition of 1853 was the signing of the treaty of March 3, 1854, which amounted to little more than an agreement to accord kind treatment to shipwrecked seamen and to allow United States vessels to anchor in Japanese ports to obtain stores. Treaties with Great Britain and Russia followed in the same year, national isolation was discarded, and Japan dropped into the march of modern progress. In a quarter of a century Japan sprang, almost full-fledged, into the economic and political theater of the world.

EFFECT ON SHIPPING AND SHIPBUILDING

The first direct effect on Japanese sea power that followed establishment of relations with the world was the repeal of the prohibition against constructing ships for overseas trade. Thus shipping and shipbuilding were the first to be released from the isolation policy.

Two small sailing ships were built in Japan in 1854; one was a failure and the other, built under the directions of a shipwrecked crew, carried that crew away in safety. This was the first experience of Japan with occidental shipbuilding. The Shogunate later ordered these shipwrights to build six schooners, others were built for feudal lords, and it is interesting to note that the rising-sun flag design was then adopted. At the time of the restoration in 1867-68 the Shogunate owned 44 vessels and the feudal lords 94.

NATURAL AND ECONOMIC CONDITIONS AFFECTING SHIPPING

The Japanese Empire consists of several thousand islands, more than 400 of which have a coast line exceeding $2\frac{1}{2}$ miles or serve as sea marks. Were Japan to be laid alongside the Atlantic coast of America in the same latitudes, it would reach from Cuba to Labrador. The topography is extremely rugged, the seacoast strongly indented, and few places are far away from the mountains or distant from the sea. In addition the Japanese Empire to-day includes Taiwan (Formosa), Chosen (Korea), and Karafuto (Sakhalin), the Kwangtung Peninsula (Port Arthur and Dairen) on a 99-year lease, and holds the mandate for the former German possessions in the Pacific—the Marshall, Caroline, Ladrone, and Pelew Islands.

The teeming population of Japan proper (now 60,000,000) confined to a relatively small and unproductive area of 148,000 square miles, or nearly 400 persons to the square mile; the necessity for importing part of the food requirements for this island people; the necessity for exports to balance imports; the lack of native minerals and the consequent necessity for importing raw materials for its expanding industries; the low wages—all these are factors in the remarkable maritime expansion of the nation.

In this connection Commercial Attaché Halleck A. Butts,² Tokyo, in a report dated October 27, 1927, said:

The dependence of Japan upon supplies from foreign countries,³ consisting of both real necessities of life (foodstuffs) and raw materials for industry, is regarded as cause for the Government to maintain adequate steamship facilities, and it was and is this condition which is largely responsible for the payment of certain subsidies at this time [1927]. Large quantities of rice are imported annually from Burma and French Indo-China, with smaller quantities from the Philippines and even Japan's territorial divisions, such as Chosen and Taiwan. Raw cotton is imported from India, China, and the United States, and wool from Australia. Structural iron and steel and lumber are imported from the United States, northern territories, and Siberia. Maintenance of services to supply the domestic demand for these goods requires subsidies in some instances, since freight earnings alone are not ample enough to warrant operation of such lines by private corporations.

Conditions thus compelled Japan to be a shipowning nation. Whether it should be solely a shipowning nation like Norway, which is without iron and also without coal, or both a shipowning and a shipbuilding nation like Italy, which is without either iron in any quantity or coal at all, was determined, doubtless, principally by military expediency and requirements. Except for the economic fact that Japan had no native iron ores with which to meet the development of the metal ship there appears no other economic reason for the assistance extended by the Government of Japan to its shipping.

THE JAPANESE COMMERCIAL FLEET

RISE OF JAPAN AS A SEA POWER

PERIOD TO 1894

The various steps by which Japanese sea power was developed may be chronologically divided into periods as follows:

1. Before the Meiji restoration of 1867-68 and up to the Sino-Japanese War, 1894;
2. Between the Sino-Japanese War and the Russo-Japanese War, 1894-1905;
3. Between the Russo-Japanese War and the World War, 1905-1914; and
4. From 1914 to 1931.

Up to 1868 Japan remained feudal, under clans each of which was a self-contained unit. Under this system there were no means of communication—no military roads in a national-defense scheme and none required for commerce. The quickening of communication requirements was first felt when the Government was reorganized in 1868 on the basis of a pure absolutism, with the emperor as the sole wielder of authority, both legislative and executive. In 1870 a Japanese invented the jinrikisha, the man-drawn 2-wheeled vehicle suitable for the narrow and undeveloped roads, and the same year

¹ While few direct quotations from Commercial Attaché Butt's writings are given in this present monograph, his numerous reports to the Department of Commerce submitted over a period of several years have served as a background for this discussion of Japan's maritime progress and subsidy policies.

² In 1870 Japan's foreign trade approximated \$24,000,000 in value; by 1880 this total had risen to some \$37,000,000; by 1890, to \$69,000,000; by 1900, to \$245,000,000; by 1910, to \$461,000,000; by 1920, to \$2,142,000,000; and by 1925, to \$2,439,000,000. In 1930 the total value was \$1,500,000,000.

the Government decided to build the first railroad; both of these events stimulated travel very greatly. From a national and an international standpoint, however, ships soon became essential.

In 1870 the Mitsubishi Co. had its beginnings, and this company became the central figure in the merchant marine for the next 15 years. In 1872 the Japan Mail Steamship Co. was organized, to which the Government contributed the vessels it owned and the company was ordered by the Government to carry mails and operate regular services between Tokyo and Osaka. Competition from the new Mitsubishi Co.,⁴ however, soon developed.

FIRST MILITARY CAMPAIGNS AND THEIR RESULTS

The war with Formosa in 1875 was the first military campaign which had direct results upon Japanese shipping. For this campaign the Japanese Government purchased 13 steamers for military-transport service. During the following year these vessels, together with 18 purchased by the Government from the Japan Mail Steamship Co., were transferred to the Mitsubishi Co. In addition a subsidy of 250,000 yen was granted annually. The Mitsubishi Co. then purchased the four competing vessels of the Pacific Mail Steamship Co. of the United States, which were being operated between Yokohama and Shanghai, the Japanese Government advancing a loan for this purpose. Shortly thereafter the Mitsubishi Co. extended its services to Hong Kong.

Civil disturbances in 1877 required the purchase by the Government of 10 more foreign steamers, which again were delivered to the Mitsubishi Co. That company now owned more than one-half of all Japanese tonnage—a situation that was attended with some evils, the principal one being that no measures were taken to improve the quality of the tonnage or to renew it.

SHAPING OF GOVERNMENT SHIPPING POLICY

The time had arrived when the shipping problem had assumed a place of public importance in the life of the nation. Transport services necessary for two military campaigns and essential commercial services had been provided through Government action, and the accumulation of national tonnage was the result of emergency

⁴ Although the history of the Mitsubishi enterprises does not go back as far as that of the Mitsui, it traces its origin to the times of the Shogunate, when Lord Yode Yamanouchi established a "clan company" in Osaka for the transportation of merchandise. The foundation of the present Mitsubishi interests was laid by Yataro Iwasaki, who took over the business in 1870. Known first as Tosa Kaisai Shosa and later as Tsukumo Shokai, the company devoted itself to the shipping business of the Tosa clan. During Iwasaki's lifetime the business expanded into manufacturing and mining, and in 1875, on receipt of an imperial charter, changed its name to the Mitsubishi Mail Steamship Co.

Thereafter the company grew with the development of the country. In 1880 it entered the exchange business. In 1884 the Government, divesting itself of its business enterprises, first loaned and later transferred to the Mitsubishi interests the Nagasaki Shipbuilding Yard. In 1885, upon obtaining control of the One Hundred and Nineteenth National Bank, the company added the business of general banking to its activities.

In 1885 another event of importance occurred in the amalgamation of the Kyodo Unyo Kaisha (Union Transport Co.) with the Mitsubishi interests to form the Nippon Yusen Kaisha (Japan Mail Steamship Co.). With the transfer to this company of all the Mitsubishi shipping business, the company carried on its mining, shipbuilding, and banking activities under the name of the Mitsubishi Sha (Mitsubishi Co.). In December, 1893, pursuant to the new commercial code, the Mitsubishi Goshi Kaisha came into being and took over all the business of the Mitsubishi Sha. (Extract from *The Big Five in Japanese Banking*, by Herbert M. Bratter; issued by the Bureau of Foreign and Domestic Commerce, Washington, as Trade Information Bulletin No. 653.)

action which had not enhanced the character of the fleet. It was recognized that if the country were to become involved in hostilities with other nations, such hostilities would not necessarily be confined to Japanese territory on the islands, but might be in foreign territory and possibly on distant foreign soil. Military transport and how best to acquire it became the principal issue in national shipping.

The problem of providing adequate shipping suitable for military transport gave rise to two schools of thought—a program of Government-owned transport, and a subsidized commercial service. The advocates of a Government-owned system supported a program of ocean-going vessels of sufficient tonnage to assure adequate military transport and communication support.

The opponents of a Government-owned military-transport system pointed out that in time of peace the Government would be obliged to tie up its transport fleet or to directly operate it commercially for profit. They argued in favor of the development of a powerful merchant fleet, privately owned, but so designed and so constructed that it would meet both the commercial and the military needs of the Government in an emergency. They favored stimulation of national commercial shipping by sufficient Government aid to neutralize whatever cost differentials might exist against such a program.

The latter course was chosen for various reasons, among which may be named (1) the avoidance of suspicion of military aggression, which would be invited by a large Government-owned transport system, (2) the economic advantage of having a share of freight earnings from the overseas trade returned to Japanese nationals; (3) the building of a naval reserve through a large national element employed in commercial shipping; and (4) the providing of employment in the shipping and shipbuilding industries.

In negotiating a merchant-marine program Japanese statesmanship recognized that concentration of strength was necessary in any industry that was to engage in international competition. Concentration of capital and effort, with Government encouragement, became national policy.

ORGANIZATION OF NIPPON YUSEN KAISHA

In 1881 the Japanese Government officially promoted the Kyodo Unyo Kaisha (Union Transport Co.), a combination of two or three companies, with a capital of approximately 10,000,000 yen (\$4,985,000), in which the Government became a shareholder. The new company ordered 15 British vessels and agreed to provide the vessels for military or commercial transport in the Government's interests. By this act the Japanese Government definitely abandoned the policy of purchase and operation of commercial vessels.

The new company, however, was in competition with the Mitsubishi Co., and the Government found itself in the position of subsidizing two competing services, both incurring heavy losses. Therefore, in 1885 (see footnote, p. 320) it was found desirable by both the Government and the private interests concerned to consolidate the new company with the Mitsubishi Co., and this was done,

the new organization becoming the Nippon Yusen Kaisha, the most important Japanese shipping company.

The Nippon Yusen Kaisha was established with a capital of 11,000,000 yen (\$5,478,000). The Government subsidized the company through a guaranty of 8 per cent on the capital for 15 years, a principle which provided for parallel increases of subsidies and capital as the company developed. The Nippon Yusen Kaisha operated 18 lines with 40 vessels employed in the home coasting trade or in services to China and Vladivostok. Its Kobe-Manila line was opened in 1895 and the Kobe-Bombay line in 1894—the first regular ocean-going services operated in Japan.⁵

OSAKA SHOSEN KAISHA AND OTHER PIONEER COMPANIES

The Osaka Shosen Kaisha, the second ranking Japanese shipping company, was organized one year earlier than the Nippon Yusen Kaisha and was the result of the policy of concentration. From 1868 on the Government encouraged the building of modern vessels, with the result that many small shipping enterprises were promoted by private individuals. These vessels found employment in the coastal trades and engaged in a destructive competition. At the instigation of the Government these shipowners organized a combine which in 1884 was reorganized into a joint-stock company called the Osaka Shosen Kaisha; the company comprised 50 owners and 93 small vessels. Later the Osaka Shosen Kaisha was granted a subsidy and operated 20 mail services in the western parts of the country, and extended a line to Korea in 1891. In 1893 the capital was increased to 1,800,000 yen (\$896,400).⁶

Besides the two principal Japanese companies up to this period there were a few companies engaged in the coasting trade and several small private owners.

Shipping developments up to the war with China thus comprised the inauguration of the two principal steamer companies, with extension of services to Asiatic points. Shipbuilding so far had not developed beyond the limited wooden-ship construction. The bulk of the national tonnage was imported.

PERIOD FROM 1894 TO 1905

EFFECT OF SINO-JAPANESE WAR

When the war with China broke out in 1894 Japan had 417 vessels of more than 20 gross tons, aggregating 181,819 gross tons. Foreign services had been established to Bombay, Tientsin, Shanghai, and Vladivostok. This campaign had a profound effect on Japanese shipping policy. Japan dispatched 200,000 men to China and maintained them there for more than a year. The available merchant fleet was not sufficient for the task. All the larger vessels were requisitioned by the Government, transport by sea was almost tied up, foreign services were withdrawn, commodity prices and business were greatly disturbed.

⁵ Industrial Japan, 1929, p. 358.

⁶ The par rate of \$0.498 to the yen is used for conversions throughout this section except where specifically stated otherwise.

The Government again had to resort to the purchase of foreign tonnage, acquiring 14 vessels of 41,800 gross tons, which were turned over to the Nippon Yusen Kaisha for management and operation. In addition a considerable amount of foreign tonnage was chartered or purchased privately, with the result that Japanese national tonnage was increased by 87 vessels of 130,000 gross tons, many of which were of more than 2,000 gross tons. The total gain in tonnage by 1896 was approximately 250,000 gross tons, comprising all kinds of vessels. By 1895 Lloyd's Register credited Japan with 339 vessels of 279,668 gross tons, in vessels of 100 gross tons and upwards.

EXPANSION OF SHIPPING SERVICES

The effect of the Sino-Japanese War on Japanese shipping was far-reaching. For one thing, it crystallized public opinion in favor of a comprehensive subsidy program. Foreign services were expanded, new companies came into being, and Japanese-built steel ships began to appear. The Nippon Yusen Kaisha in 1896 opened its Japan-Europe service and projected the construction of 12 twin-screw 6,000-ton steamers, 2 in Japan and 10 in Great Britain, which were to be operated fortnightly when completed. A line was also extended to Seattle, and in this service the company placed three of the larger vessels obtained during the war, with monthly sailings. A third service was inaugurated to Australia with three passenger vessels of 3,500 gross tons, built in Great Britain, with monthly sailings. These were the pioneer Japanese services to Europe, America, and Australia.

The rapid expansion of shipping at this time resulted in further extension of the operations of the Osaka Shosen Kaisha. In 1896 this company opened a service to Taiwan (Formosa), and ordered three vessels of 3,300 gross tons and four vessels of 1,600 gross tons in Great Britain, which were completed in 1897. Another service was opened between Shanghai and Hankow, later extended to Ichang through Government aid. The last-named service was operated with three shallow-draft vessels of 1,600 gross tons.

In 1896 the Toyo Kisen Kaisha was organized. This company ordered three passenger vessels of 6,000 gross tons in Great Britain in 1898, which were to be operated on the Japan-San Francisco line in combination with the Pacific Mail Steamship Co. of the United States. Besides this company many smaller enterprises and private individuals entered the industry through the purchase of foreign tonnage, which was operated in the coasting trade as well as in the charter services in the seas about North China and Chosen (Korea).

PERIOD FROM 1905 TO 1914

EFFECT OF RUSSO-JAPANESE WAR

Japanese shipping was again to feel the effect of war with the outbreak of the Russo-Japanese conflict in 1905. Once more it became necessary to requisition the national tonnage, and once more this tonnage was found to be insufficient to meet the joint needs of com-

merce and war. The Government requisitioned 260 vessels of 680,000 gross tons. In addition, 164 vessels of 310,000 gross tons were imported during the war period. Regular services to Europe, Australia, and the Pacific Coast of the United States were withdrawn and were not resumed until after the cessation of hostilities in 1906.

It was feared that the influx of foreign-built vessels during the war and the withdrawal of services would seriously affect the Japanese tonnage market when the war ended. By that time, however, the industrial expansion of Japan, the expansion of its foreign trade, and the wide extension of shipping lines had created a demand not only for the available tonnage but for new ships, both foreign and domestic. For its foreign services the Nippon Yusen Kaisha built 6 twin-screw vessels of 10,000 gross tons, 3 vessels of 12,000 gross tons, 6 cargo vessels of 6,000 gross tons, and 6 cargo vessels of 7,000 gross tons; in all, 21 vessels of an aggregate gross tonnage of 174,000. The Osaka Shosen Kaisha built six cargo vessels of 6,000 gross tons and inaugurated its Tacoma and Bombay lines. The Toyo Kisen Kaisha built three turbine-driven vessels of 13,000 gross tons for the San Francisco service and started its South American service with a vessel acquired during the war, and purchased two United States tankers for oil carriage.

Another extension of Japanese shipping took place after the Russo-Japanese war through the formation of other operating companies. Thus the two leading companies, the Nippon Yusen Kaisha and the Osaka Shosen Kaisha, combined with other operators who had been operating in the Yangtze and formed the Nisshin Kisen Kaisha, which, with Government aid, operated the Shanghai-Hankow, Hankow-Ichang, and Shanghai-Suchow-Kanchow lines. A further development was the organization of the Japanese Shipowners Association, a chartering group which purchased old foreign-built vessels for tramp services, but which made no progress prior to the World War because of overtonnaging and a consequently depressed charter market.

GROWTH OF THE MERCHANT MARINE

Thus within a generation Japan advanced from a subordinate position in maritime affairs to rank with the four great naval and mercantile marine powers of the world. In the 30 years after 1880 Japanese ocean-steamer tonnage multiplied thirtyfold; on July 1, 1931, the Japanese commercial fleet included 1,024 vessels of 1,000 gross tons and over, with a total gross tonnage of 3,951,399, or 44 times the 90,000 tons of occidental-type ships in the Japanese merchant marine of 1880. The increase in total gross tonnage of Japanese power-driven commercial vessels of 100 gross tons and upwards was as follows for stated periods from 1895 to 1931:

TABLE 64.—GROWTH OF THE JAPANESE COMMERCIAL FLEET

July 1—	Power-driven vessels ¹ owned in Japan		July 1—	Power-driven vessels ¹ owned in Japan	
	Number of vessels	Gross tons		Number of vessels	Gross tons
1895.....	339	279,668	1926.....	2,087	3,967,717
1900.....	484	488,187	1927.....	2,035	4,033,304
1905.....	691	870,839	1928.....	2,048	4,139,815
1910.....	848	1,146,977	1929.....	2,059	4,186,652
1915.....	1,155	1,826,068	1930.....	2,060	4,316,804
1920.....	1,940	2,995,878	1931.....	1,969	4,276,341
1925.....	2,087	3,919,807			

¹ Vessels of 100 gross tons and upwards. Sailing vessels owned in Japan are not listed in Lloyd's.
Source: Lloyd's Register of Shipping.

EMPLOYMENT OF THE FLEET

Prior to the World War Japanese shipping served primarily as trade and communication lines between the component parts of the Empire and between the Empire and foreign countries, although confined principally to Asiatic waters. Following the World War Japanese tonnage entered the charter market as general carrier in the world trade.

The activity of Japanese shipping in the foreign trade is well illustrated in the following table, showing the percentage of Japan's imports and exports carried from and to foreign countries in vessels of national registry:

TABLE 65.—PROPORTION OF JAPANESE FOREIGN TRADE CARRIED IN NATIONAL VESSELS

Year	Total foreign trade		Exports		Imports	
	Value	In Japanese vessels	Value	In Japanese vessels	Value	In Japanese vessels
	Yen ¹	Per cent	Yen ¹	Per cent	Yen ¹	Per cent
1914.....	1,183,295,518	57	590,400,961	60	592,894,555	54
1915.....	1,237,117,465	71	707,303,457	69	529,814,005	73
1916.....	1,856,727,690	73	1,111,180,629	71	745,547,061	75
1917.....	2,550,851,114	80	1,522,247,548	79	1,028,603,466	80
1918.....	3,542,006,014	88	1,877,346,636	88	1,664,659,378	87
1919.....	4,268,541,006	81	2,095,415,467	79	2,173,125,539	83
1920.....	4,271,620,091	72	1,935,703,310	77	2,335,916,781	67
1921.....	2,863,709,997	74	1,249,819,165	77	1,613,890,832	71
1922.....	3,522,673,281	42	1,636,134,964	39	1,886,538,297	44
1923.....	3,414,515,963	46	1,447,363,288	43	1,967,152,675	48
1924.....	4,249,314,489	62	1,806,860,467	64	2,442,454,022	80
1925.....	4,871,655,533	69	2,303,697,307	71	2,568,067,720	66
1926.....	4,414,785,416	66	2,044,467,291	71	2,370,318,125	62
1927.....	4,166,068,153	68	1,991,145,691	73	2,174,922,492	63
1928.....	4,157,487,324	67	1,969,639,865	72	2,187,847,459	63

¹ For rough approximations of the American equivalents of these values the yen can be taken as \$0.50; actual exchange rates (annual averages) ranged from \$0.4104 to \$0.5147 during the period covered by the table; the mint par is \$0.4965.

Source: Annual Return of the Foreign Trade of the Empire of Japan, 1928.

Japanese trade and Japanese shipping flourished mutually during a period when comparatively large shipping bounties were provided. There is general agreement that the force of expansion of Japanese

trade would naturally have developed Japanese shipping, but that subsidies accelerated the movement. The following statement of cause and effect is quoted from an article on Mercantile Marine and Shipbuilding Industry by Dr. Jujiro Ito, formerly a professor of Waseda University and a writer on shipping matters, closely allied with the shipping interests of Japan:

Generally speaking, war has been the most potent factor in the development of the mercantile marine of Japan as to numerical strength, while for improvement in quality it has chiefly to thank Government protection. * * *

The world-wide expansion (during the World War) was especially marked in tramp boats, as is natural, the subsidized liners being checked by the subsidy regulation they were under from utilizing the unique occasion to the fullest advantage.

According to the experience witnessed during the 10 years prior to the war the addition made every year to the existing fleet of steamers exceeding 1,000 tons amounted to 14.9 per cent of the total volume. * * * It would be too sanguine to say that the whole of the addition to be made in the future will be built at home; but this much is certain—that the bulk will be launched at home dockyards from consideration of the oversea subsidy law.

EARNINGS OF THE FLEET

The financial results obtained by shipping companies having an authorized capitalization of 300,000 yen—which group, for all practical purposes, includes all companies operating under subsidies—are set out in Table 65a.

TABLE 65a.—RELATION OF SHIP SUBSIDIES AND NAVIGATION BOUNTIES TO THE DEVELOPMENT OF JAPANESE SHIPPING, 1900-1927

Year	Companies ¹	Net earnings (including subsidies)		Total shipping subsidies and bounties	Fleet	Paid-up capital	Reserve fund
		Number	Yen ²	Yen ²	Gross tons	Yen ²	Yen ²
1900.....	11	10,237,136	6,746,333	329,314	44,274,000	11,456,000	
1901.....	11	11,339,077	6,822,272	355,698	46,389,000	13,754,000	
1902.....	12	11,493,369	7,344,804	369,970	52,569,000	23,589,000	
1903.....	13	12,063,448	2,521,321	408,143	53,396,000	28,554,000	
1904.....	13	11,725,526	3,955,141	422,300	55,674,000	33,485,000	
1905.....	14	13,831,086	2,263,859	478,129	62,130,000	40,052,000	
1906.....	15	11,449,350	5,073,925	561,889	69,573,000	42,760,000	
1907.....	19	12,118,273	8,584,076	602,023	94,061,000	34,299,000	
1908.....	20	10,934,620	8,836,510	648,343	96,077,000	38,638,000	
1909.....	22	8,179,562	10,925,929	703,939	99,019,000	41,524,000	
1910.....	20	7,710,094	11,610,661	606,042	61,442,000	26,504,000	
1911.....	20	8,649,442	12,215,940	648,866	61,636,000	30,653,000	
1912.....	15	10,339,773	11,851,603	702,738	60,651,000	37,771,000	
1913.....	23	15,703,827	11,621,958	785,190	62,484,000	45,196,000	
1914.....	24	12,590,828	11,230,579	841,931	65,258,000	51,650,000	
1915.....	24	21,450,857	8,406,450	895,615	65,796,000	41,742,000	
1916.....	28	63,110,173	7,248,494	980,793	89,475,000	57,590,000	
1917.....	52	143,143,073	6,819,332	1,127,483	74,200,000	26,016,000	
1918.....	52	218,443,800	6,072,537	1,356,642	269,883,000	191,712,000	
1919.....	65	10,280,983	5,558,255	1,297,815	269,332,000	238,490,000	
1920.....	56	31,651,050	5,828,309	1,689,745	315,947,000	187,367,000	
1921.....	77	4,797,937	7,841,323	2,109,541	406,101,000	184,056,000	
1922.....	71	4,498,028	7,512,772	2,049,136	367,406,000	174,963,000	
1923.....	75	11,453,079	7,612,685	2,002,676	348,168,000	151,613,000	
1924.....	75	1,916,811	8,549,589	2,267,049	385,473,000	130,412,000	
1925.....	81	12,215,034	7,281,901	2,204,849	366,094,000	123,241,000	
1926.....	71	3,313,201	8,156,070	2,249,949	355,228,000	102,280,000	
1927.....	79	14,915,190	8,782,085	2,636,187	371,879,000	107,615,000	

¹ Includes only companies with authorized capital of 300,000 yen or more.

² During 1900-1914 the annual average exchange rate for the Japanese yen did not vary much from par, \$0.498; for the year 1915 the average was \$0.4898; for 1916, \$0.5016; for 1917, \$0.5067; for 1918, \$0.5147; for 1919, \$0.5118; for 1920, \$0.5037; for 1921, \$0.4825; for 1922, \$0.478; for 1923, \$0.4858; for 1924, \$0.4119; for 1925, \$0.4104; for 1926, \$0.4712; and for 1927, \$0.4741.

Source: Financial and Economic Annual of Japan, 1910, 1918, 1927, and 1928 issues.

The figures in Table 65a covering paid-up capital, reserves, and, to a lesser extent, net earnings, while official, do not represent final-accounting accuracy and do not include the entire Japanese merchant marine. Moreover, the subsidies listed are those actually received by the companies and not the total authorized by the central government, supplemented by the authorizations of Chosen and Taiwan. The figures indicate trend and the relationship between net earnings and subsidies.

In respect of earnings of Japanese shipping the Japan Yearbook for 1929 states:

No authentic data exist as to the contribution of Japanese carrying trade to national income. The only reliable figures are those given out by the "earthquake cabinet," which calculated the shipping earnings roughly at 170,000,000 yen for both 1922 and 1923.

THE WAR AND THE MERCHANT MARINE

The World War enormously expanded Japan's shipping and ship-building industries. Being remote from the scene of war, Japan did not suffer greatly in tonnage losses from submarine warfare compared with other maritime nations, only 119,000 gross tons, or 7 per cent of the pre-war tonnage, being lost. Due to the increased demand for munitions and other commodities by the powers at war, and due to the cutting off of normal supplies from the warring nations to the rest of the world, a remarkable increase took place in the volume of Japanese trade. When the war broke out Japanese foreign trade amounted to about 1,183,296,000 yen (\$589,282,000); by the end of the war it had reached 3,542,006,000 yen (\$1,763,919,000). Exports during the period increased from 590,401,000 yen (\$294,024,000) to 1,877,347,000 yen (\$934,919,000).

The Nippon Yusen Kaisha inaugurated its east-bound service to New York, the South America service by way of South Africa, the Port Said and Mediterranean services, and the Java-Calcutta-Japan-America service. After the war the company projected an extensive building program. In 1923 it established the Kinkai Yusen Kaisha to take over the home coasting services.

The Osaka Shosen Kaisha extended its services to the South Sea islands, to Australia, South America, Marseille, and Genoa. After the war the company opened services to northern Europe.

The Toyo Kisen Kaisha likewise was very active. In 1926 it was absorbed by the Nippon Yusen Kaisha.

Numerous private owners and small operators built tonnage, with the result that when the war ended and fear for the tonnage market arose they combined in the same manner as had been done twice previously in Japanese shipping history and organized the so-called "K" line (Kokusai Kisen Kaisha) with a total fleet of about 500,000 dead-weight tons.¹

WAR'S EFFECT ON SHIPPING

Besides a great increase in steel and iron imports into Japan during the war period, other elements in the foreign trade, following

¹ Industrial Japan, 1929, p. 363.

a slump immediately upon the outbreak of the war in Europe, contributed to the enormous expansion of the Japanese shipping industry throughout the World War, and in this the Japanese Government took a prominent part.

The first effect of the war was the falling off in the foreign tonnage which habitually traded with Japan. To remedy this the Japanese shipping industry attempted to purchase foreign tonnage and to recall Japanese tonnage which was chartered in other than Japanese trades.

Beginning with the trading with the enemy acts, which curtailed normal Japanese markets, Japanese trade was adversely affected by control of exports from Japan and by prohibitions or restriction of imports in other countries due to the necessity of protecting home industries, financial stringency, shortage of tonnage, and other reasons. These included all nations at war and the general trade in the Asiatic waters. Obstacles to import trade were raised by export control in foreign countries, resulting in confusion in the natural trends of Japan's foreign commerce.

Late in 1914 representatives of the Japanese Government investigated the Asiatic trades and the United States and Canadian trades. In 1916 a second committee studied the South African, central European, and Scandinavian trades. Other committees made tours in 1917 and 1918. The investigations resulted in the establishment of special bureaus for meeting industrial conditions brought about by the war, including inspection of exports, with a view to standardizing and bettering such exports.

GOVERNMENT SHIPPING CONTROL

The shortage of tonnage reached a stage which finally resulted in centralized Government control, effective from October, 1917. The Government, represented by the Minister of Communications, exercised this control along the following lines:

(a) Japanese vessels could not (without special permission) be transferred to persons not legally entitled to possess Japanese tonnage.

(b) Builders who desired to build vessels for persons not entitled to possess Japanese tonnage must have special permission.

(c) Transportation by Japanese vessels of passengers or cargo in the indirect trades, between foreign ports, might be prohibited or restricted, and Japanese vessels could not engage in the indirect trades without special authority.

(d) Japanese vessels might be ordered to operate under fixed schedules or to transport passengers and cargo as required.

(e) Freight rates and passenger fares might be limited.

(f) The Government retained the right to requisition vessels and all facilities for building them by indemnifying the owner for all losses.

WAR-RISK INSURANCE

LAWS OF 1914 AND 1917

To meet the rising insurance rates on cargoes and vessels which resulted from war casualties the Japanese Government put in force an insurance compensation act on September 12, 1914. Under this

act the Government made good losses up to 80 per cent of risks underwritten by Japanese underwriters according to rates fixed by competent authorities. Such assistance was restricted to:

1. Vessels of Japanese nationality trading in regular and authorized routes;
2. To cargoes carried on such vessels; and
3. To cargoes exported from or imported into Japan.

Under this law increasing expenditures were incurred with the extension of submarine warfare, and the Japanese Government therefore abrogated it and passed the war-time marine reinsurance act, effective July 20, 1917. Under this latter law Japanese underwriters and foreign underwriters represented in Japan who accepted risks at current legal rates could reinsure their risks with the Government. From September 20, 1917, to the end of March, 1918, the Government reinsured 64 per cent of Japan's total trade, or an amount of 1,121,218,754 yen (\$558,366,939).

The loss sustained by the end of 1918 was estimated at 11,597,625 yen (\$5,775,617), which was less than the receipts in premiums, resulting in a service to trade and benefit to the national treasury.⁸

DEVELOPMENT OF JAPANESE SHIPBUILDING

As has just been said, the World War enormously expanded both the shipping and the shipbuilding industries of Japan. Especially was the shipbuilding industry affected.

At the outbreak of the war Japanese shipbuilding had not progressed to a point where the industry could compete with the shipbuilding industries of Europe and the United States. This condition was so generally accepted that popular opinion sustained the construction-bounty system for the national shipbuilding industry. The profits made by the shipbuilding industry during the war, however, and the increasing drain on the public treasury reversed public opinion on the subject, with the result that during 1917 construction bounties were suspended, and in 1918 abolished. (See p. 342.)

WAR'S EFFECT ON SHIPBUILDING

EFFECT ON PRODUCTION

Whereas following the Russo-Japanese War the stimulus to Japanese shipbuilding was not felt until after the war period, the events of the World War made themselves immediately felt in the shipbuilding industry, not only in total tonnage but also in the increasing size of vessels of Japanese construction. During 1911, 1912, and 1913 only six ships were built each year which measured more than 1,000 tons, whereas in 1914 there were 12 such steamers; in 1915, also 12; in 1916, 37; in 1917, 70; and in 1918, 180 steamers of over 1,000 gross tons.

⁸ Yamasaki, Kakujiro: *The Effect of the World War Upon the Commerce of Japan: Economic and Social History of the World War, Japanese Series*, pp. 28, 29.

TABLE 66.—LAUNCHINGS AT JAPANESE SHIPYARDS DURING WORLD WAR PERIOD

Year	Steam vessels						Sailing vessels †		Total launchings	
	Over 1,000 tons		Under 1,000 tons		Total		Number of vessels	Gross tons	Number of vessels	Gross tons
	Number of vessels	Gross tons	Number of vessels	Gross tons	Number of vessels	Gross tons				
1914.....	12	49,913	73	8,933	85	58,846	557	34,528	642	93,374
1915.....	12	67,657	62	11,337	74	78,994	411	26,024	485	105,018
1916.....	37	128,118	57	15,762	94	143,880	519	45,831	613	189,711
1917.....	70	290,879	144	46,837	214	337,716	1,354	126,773	1,568	464,489
1918.....	180	618,588	351	170,071	531	688,659	2,043	186,580	2,574	875,239

† All under 1,000 gross tons except one vessel of 1,025 gross tons launched in 1917.

Source: Ogawa: *The Effect of the World War upon the Industry of Japan; Economic and Social History of the World War*, Japanese Series, p. 245.

In addition to the increase in shipbuilding volume the war period saw the development of specialty manufacture of ship machinery, hulls, and equipment.

Before the war Japanese construction was confined principally to the mixed cargo-and-passenger vessel suitable for the overseas subsidized lines. During the war the cargo vessel became the sole product, the two standard-size ships of 5,860 and 3,200 gross tons being the principal types.

In 1913 there were in Japan only 6 yards capable of building vessels of 1,000 gross tons, and only 17 building berths, with a total employment of 26,000 men. By 1918 there were 57 shipyards and 157 building berths, with an employment of 97,000 men.

EFFECT ON PRICES

Tonnage prices soared. Used tonnage in Japan during May and June, 1915, brought only 53 and 54 yen (\$26.39 and \$26.89 at par or \$25.91 and \$26.40 at the average rate of exchange for these months) per gross ton. By the end of that year prices had doubled, and at their peak, during September, 1917, reached 750 yen (\$373.50 at par or \$380.63 at average exchange for the month).

New vessels in 1914 brought 160 yen per gross ton and 110 yen per dead-weight ton (\$79.68 and \$54.78 at par or \$78.94 and \$54.27 at average exchange rate for the year), based upon shipowners' contracts. These prices rose during the first half of 1917 to 600 yen per gross ton and 400 yen per dead-weight ton (\$298.80 and \$199.20 at par or \$303.18 and \$202.12 at average exchange for January-June, 1917). Following this, based upon selling figures, small ships during the second half of 1918 brought 1,050 and 1,220 yen (\$522.90 and \$607.56 at par or \$544.85 and \$633.06 at average exchange) per gross ton, depending upon whether vessels were small or large; and 700 and 810 yen (\$348.60 and \$403.38 at par or \$363.23 and \$420.31 at average exchange) per dead-weight ton for similar size specifications.⁹

⁹ Ogawa: *The Effect of the World War Upon the Industry of Japan; Economic and Social History of the World War*, Japanese Series, p. 254.

SHIPBUILDING AID THROUGH STEEL BOUNTIES

The profits of the shipbuilding industry were so large that no reason remained for continuing the construction-bounty system. With the abolition of construction bounties to vessels, however, another form of aid was extended—that of aid to the steel industry. Japan is poor in native iron ores. The iron mines of China and Manchuria and, more recently Chosen (Korea) are the natural sources for the essential ores for steel production. Geographically the relationship between the Japanese steel industry and the Chinese mines is similar to that which exists between the Pittsburgh steel mills and the Minnesota iron-ore fields. The distance between the iron ore districts in China and the Nagasaki mills is about 950 miles and navigation is not open throughout the year.

PRODUCTION AND CONSUMPTION OF STEEL

During 1896–1900 steel production in Japan averaged but 1,000 tons yearly. In 1901 the Imperial Government began operation of the iron and steel plant at Yawata, and the first five years of governmental operation resulted in an average annual output of 41,000 tons. Production for 1906–1910 averaged 106,000 tons annually, and from 1911 to 1913 222,000 tons.¹⁰

Domestic production was 0.5 per cent of the total consumption during the first of the above periods, 14.3 per cent for the second, 21.8 per cent for the third, and 28.4 per cent for 1911–1913. Imports during the first period were 233,000 tons annually; during the second, 248,000 tons; during the third, 279,000 tons; and from 1911 to 1913, 557,000 tons annually. Consumption of steel was 234,000 tons annually for the first period, 289,000 tons for the second, 485,000 tons for the third, and 780,000 tons annually for 1911–1913.

Steel production during the war averaged 416,000 tons annually, steel consumption averaged 900,000 tons, and the ratio of home production to consumption was 46.2 per cent for the period.¹¹

Imports of iron and steel from Great Britain during 1912–1918 declined from 338,000 tons to 15,600 tons. Imports from Germany declined from 188,453 tons to 315 tons, and from Belgium from 61,000 tons to nothing. To offset this imports from the United States rose from 197,000 to 667,000 tons, and from China from 11,000 to 220,000 tons.¹²

EXCHANGE OF SHIPS FOR SUPPLIES

From these facts it is obvious that the greater part of steel for the Japanese shipbuilding industry must be imported. The extraordinary demand for steel during the war period created a scarcity, which, together with embargoes on steel by both Europe and America, was reflected in high prices. So far as the United States was concerned, contracts for steel supplies to Japan were agreed to by the United States Government, as a result of which 250,000 tons of steel were furnished to Japan during 1918–1921, while at the same time

¹⁰ *Idem*, p. 224.¹¹ *Idem*, p. 226.¹² *Idem*, p. 249.

the Japanese shipbuilding industry built 45 new steel vessels of 374,000 dead-weight tons for delivery to the United States.

The principal provisions of the first agreement of April, 1918, between Japanese and United States interests, follows:¹³

1. The seller (Japan) was to receive 1 long ton of ship material for every ton dead weight of ships furnished to the buyer (America).

2. The seller was to deliver to the buyer 12 ships aggregating about 100,800 dead-weight tons, delivery to be effected in Atlantic or Pacific ports of the United States some time between May and September, 1918.

3. The price of ships varied according to delivery date, ranging between minimum and maximum limits of \$225 and \$265 per dead-weight ton.

4. Ships were to be built under Lloyd inspection and to develop 10 knots speed fully loaded.

5. Penalties for delayed delivery of vessels were established at \$15 per dead-weight ton per month, calculated on the number of days' delay. Failure to deliver incurred a penalty of \$160 per dead-weight ton, together with return of advances made and interest thereon at 6 per cent.

The second agreement was divided into two parts, the first dealing with 3 vessels of 27,000 dead-weight tons, the price of which was established at \$212.50 per dead-weight ton, and the second covering 30 vessels of a total dead-weight tonnage of 246,000 at a price of \$175 per gross ton.

This arrangement provided for a total of 45 vessels of 373,800 dead-weight tons.

(For the provisions of the steel bounty law of 1917 and amendments of 1921 and 1926, see p. 343.)

REIMBURSEMENT OF DISARMAMENT LOSSES

In addition to these forms of aid, the Japanese shipbuilding industry was reimbursed for losses caused by the first naval disarmament conference at Washington. This was done by an act of March 24, 1926, by which shipbuilding plants and private shipyards were granted 5 per cent Government bonds in the amount of 20,000,000 yen (\$9,960,000). This grant was divided among 13 companies.

POSTAL SUBSIDIES AND NAVIGATION BOUNTIES

POSTAL CONTRACT SERVICES

SUBSIDIES UNDER 1896 LAW

Prior to 1896 the only assistance given to Japanese shipping consisted of mail subventions which amounted to 945,000 yen (\$470,610) a year in 1890 and 1891 and to 930,000 yen (\$463,140) annually in the years 1892 to 1895.

In two laws which came into operation on October 1, 1896, and which were known respectively as the shipbuilding encouragement law (see p. 340) and the navigation encouragement law (see p. 335), construction and navigation bounties were introduced for the first time and provision was made for a greatly extended postal service.

¹³ *Idem*, p. 250.

The provisions of the law of 1896 remained in effect, with modifications as of March, 1899, and February 23, 1900, until 1909, when both the navigation and construction bounty systems were redrawn, effective as of January 1, 1910, and bounties to vessels engaged on postal routes were changed to fixed annual payments to the contracting companies.

The annual payments to postal lines on a fixed-payment basis following modification of the 1896 law were, for 10 years from January 1, 1900:

TABLE 67.—ANNUAL SUBSIDIES TO POSTAL LINES UNDER REVISED LAW OF 1896

Company and service	Annual subsidy	
	Yen	Equivalent in United States currency ¹
Nippon Yusen Kaisha:		
To London and Antwerp.....	2, 673, 874	\$1, 331, 589
To Seattle.....	654, 030	325, 707
To Manila, Brisbane, Sydney, and Melbourne.....	525, 657	261, 777
To Bombay and East Asiatic ports.....	446, 300	222, 257
Total to Nippon Yusen Kaisha.....	4, 299, 861	2, 141, 330
Osaka Shosen Kaisha:		
To China, Chosen, and South China.....	341, 500	170, 067
Toyo Kisen Kaisha:		
To San Francisco.....	951, 700	473, 947
Daito Kisen Kaisha:		
To Shanghai.....	54, 750	27, 265
Total annual payments.....	5, 647, 811	2, 812, 609

¹ Converted at the par rate of \$0.498 to the yen.

POSTAL PAYMENTS UNDER 1920-21 PLAN

In 1920-21 the Japanese Diet made provision for a system of postal payments to be applied to the European and Australian lines and the line to Seattle, all served by the Nippon Yusen Kaisha. It is stated that this company's contracts with the Government during the period of the World War prevented it from taking advantage of the high freight market then prevailing, and that the company proposed to the Government the high mail-pay principle, with reduction of Government supervision over the commercial operations of the company.

The mail payments were made on a measurement-mileage basis, according to the following schedule: 3.3 sen (sen=0.498 cent United States currency) for 100 cubic feet of space per nautical mile; 4.6 sen for 200 cubic feet; 5.9 for 300; 7.5 for 400; 9.2 for 500; 11.10 for 600; 13 for 700; 15.10 for 800; 17.03 for 900, and 19.6 sen for 1,000 cubic feet per nautical mile. For all space in excess of 1,000 cubic feet the rate was 2 sen per 100 cubic feet.¹⁴

Upon expiration of the contracts due to end in 1929 the mail-pay principle was retained on two lines, those to London and Melbourne.

The three subsidized services from Japan to Seattle, San Francisco, and the west coast of South America are now (1931) operated by

¹⁴ Cablegram from American Embassy, Tokyo, Oct. 27, 1921.

the Nippon Yusen Kaisha under 5-year contracts. A summary of the main conditions follows.

JAPAN-SEATTLE LINE

Duration of contract.—Five-year contract, commencing with January, 1929, and ending in December, 1933.

Frequency of service.—Two vessels, to make 10 sailings annually; three new passenger vessels to make sailings every four weeks.

Vessel equipment.—Two vessels over 10,000 gross tons with a speed of 17 knots. Three passenger motor liners to be built, of 11,000 to 12,000 gross tons each and of 17 to 19 knots speed.

Subsidies.—For the service between Japan and Seattle, the following amounts were authorized as subsidies for the 5-year period of the contract:¹⁵ 1929-30, 322,269 yen (\$160,490); 1930-31, 1,415,908 yen (\$705,122); 1931-32, 1,702,580 yen (\$848,885); 1933-34, 1,702,580 yen (\$848,885); 1934-35, 1,702,580 (\$848,885).

JAPAN-SAN FRANCISCO LINE

Duration of contract.—Five years, from January 1, 1930, to December 31, 1934.

Frequency of sailings.—Once or more every three weeks.

Vessel equipment.—Three vessels of 13,000 to 14,000 gross tons¹⁶ each, of a speed of 18 to 20 knots.

The first of three new motor liners on this run, the *Asama Maru*, was placed in service in October, 1929.

Subsidies.—The subsidies covering this service have been considerably increased with the new contract, as compared with recent amounts authorized under the contract which expired in 1929: Old contract: 1928-29, 534,427 yen (\$266,145); 1929-30, 943,488 yen (\$469,857). New contract: 1930-31, 2,341,449 yen (\$1,166,042); 1931-32, 2,865,140 yen (\$1,426,840); 1932-33, 2,865,140 yen (\$1,426,840); 1933-34, 2,856,713 yen (\$1,422,643); 1934-35, 2,747,163 yen (\$1,368,087).

JAPAN-WEST COAST OF SOUTH AMERICA LINE

Duration of contract.—The contract runs for 5 years, from January 1, 1930, to December 31, 1934.

Frequency of sailings.—Twice every three months.

Vessel equipment.—Four vessels of 7,000 to 9,700 gross tons each, with a speed of 14 to 16 knots.

Subsidy.—The authorized subsidy for the new west coast of South America service has been increased somewhat as compared with the amounts under the contract which expired in 1929: Old contract: 1928-29, 1,791,416 yen (\$892,125); 1929-30, 1,825,403 yen (\$909,050). New contract: 1930-31, 2,227,026 yen (\$1,109,059); 1931-32, 2,186,932 yen (\$1,089,092); 1932-33, 2,218,078 yen (\$1,104,603); 1933-34, 2,043,672 yen (\$1,017,749); 1934-35, 2,058,454 yen (\$1,025,110).

¹⁵ British Department of Overseas Trade: Report on Economic Conditions in Japan to June 30, 1928, p. 69, and similar report to June 30, 1929, p. 70.

NAVIGATION BOUNTIES

LAW OF OCTOBER 1, 1896

The law of October 1, 1896, granted navigation bounties to steel and iron ships owned exclusively by Japanese subjects and plying between Japanese and foreign ports. The bounty was 25 sen (\$0.125) per gross ton per 1,000 miles sailed to vessels of 1,000 gross tons operating at 10 knots speed, with an increase of 10 per cent for each additional 500 tons up to 6,000 gross tons and a 20 per cent increase for each additional knot up to 17. Foreign-built vessels were admitted to navigation-bounty privileges if less than 5 years old and owned exclusively by Japanese subjects.

Navigation-bounty payments under the original law were: 1896, 1,027,275 yen (\$511,582); 1897, 2,127,086 yen (\$1,059,288); 1898, 4,132,123 yen (\$2,057,797); 1899, 5,846,956 yen (\$2,911,784); a total for the four years of 13,133,440 yen, or \$6,540,451.

The provision of the 1896 law permitting new foreign-built vessels to obtain navigation bounties was considered too generous and a detriment to the new Japanese shipbuilding industry. Accordingly, the act was amended so as to reduce the navigation bounties paid foreign-built vessels less than 5 years old to one-half the original rates. On Japanese-built vessels a reduction in the bounty rate of 5 per cent annually was made on vessels more than 5 years old, ending with the fifteenth year.

MODIFICATION OF 1909

The navigation-bounty changes provided by the law of 1909 in effect combined the two former types of bounty as given under the original law, namely, a fixed payment for specified route services and general navigation bounties for operation under certain conditions.

The law, which became effective January 1, 1910, provided that shipping companies operating to Europe, North America, South America, and Australia should be granted subsidies for 5-year periods on a mileage basis.

The principal features of the new law may be summarized as follows:

1. The European, Australian, North American, and South American lines that were operating under the provisions of previous laws were permitted to continue under the old system until the expiration of their contracts in 1914, but if so they were not eligible to the provisions of the new law.

2. Navigation bounties were limited to vessels of 3,000 gross tons and upward, of 12 knots speed, and less than 15 years old.

3. Bounty rates were 50 sen (\$0.25) per gross ton per 1,000 miles sailed, with no progressive extra allowances for size; 10 per cent increase for every knot of speed above 12 knots; 5 per cent reduction in subsidy rates annually to vessels after the fifth year of age.

4. Foreign-built vessels less than 5 years old were not excluded from bounty privileges.

5. Passenger and freight rates were to be approved by the Minister of Communications, and the vessels were to carry students in navigation. The personnel in foreign offices must be exclusively Japanese.

6. Routes, number of vessels, type and age, terminals, number of voyages, and methods of payment of bounties were to be determined by the Minister of Communications.

7. An increase of 25 per cent above regular bounty rates was provided for vessels built to Government plans and specifications.

In 1915 the Diet construed the law to include the subsidizing of companies which may be ordered by the Government to operate lines other than the transoceanic lines.

"ORDERED" SHIPPING SERVICES OF JAPAN

The entire shipping service of Japan, in so far as the national interest is concerned, now is "ordered" by the Department of Communications. Table 68, based upon data in the Financial and Economic Annual of Japan for 1930, recites the lines, sailings, vessel equipment, contract period, etc., of these ordered services.

TABLE 68.—SHIPPING SERVICES ORDERED BY THE JAPANESE DEPARTMENT OF COMMUNICATION

Lines	Number of vessels, and gross tonnage and speed of each	Frequency of sailings	Duration of contract	Contracting company
Mall service:				
Yokohama-London line.....	10 or more; over 7,500 tons; over 18 knots.....	Once or more every fortnight.....	Apr., 1929, to Mar., 1932.	Nippon Yusen Kaisha.
Yokohama-Melbourne line.....	3, over 5,000 tons; over 18 knots.....	Once or more a month.....	do.....	Do.
North American service:				
San Francisco line.....	3, under 15 years; 13,000 to 14,000 tons; 18-20 knots.....	Once or more every 3 weeks.....	Jan. 1, 1930, to Dec. 31, 1934.	Do.
Seattle line.....	3, under 15 years; 11,000 to 12,000 tons; 17-19 knots.....	Once or more every 4 weeks.....	Jan., 1929, to Dec., 1933.	Do.
	2 additional; over 10,000 tons; over 17 knots.....	10 times or more a year.....	do.....	Do.
South American service:				
West coast line.....	4, under 15 years; 7,000 to 9,700 tons; 14-16 knots.....	Twice in 3 months.....	Jan. 1, 1930, to Dec., 1934.	Do.
East coast line.....	5, under 15 years; 7,000 to 9,000 tons; speed, 15-17 knots.	do.....	do.....	Osaka Shosen Kaisha.
African service:				
East coast line.....	4, under 25 years; over 5,500 tons; over 14 knots.....	Once or more a month.....	Apr., 1929, to Mar., 1932.	Do.
South Sea service:				
Java line.....	4, under 15 years; over 3,500 tons; over 13 knots.....	Once or more every 3 weeks.....	do.....	Nanyo Yusen Kaisha.
China coast service:				
South line.....	2, under 15 years; over 2,000 tons; over 12 knots.....	3 times or more a month.....	do.....	Nisshin Kisen Kaisha.
North line.....	2, under 15 years; over 2,000 tons; over 12 knots.....	do.....	do.....	Do.
China service:				
Shanghai-Hankow line.....	8 or more; over 2,000 tons; over 12 knots.....	18 times or more a month.....	do.....	Do.
Hankow-Ichang line.....	3, over 1,500 tons; over 11 knots ¹	5 times or more a month.....	do.....	Do.
Hankow-Siangtan line.....	2, over 800 tons; over 9 knots.....	8 times or more a month ¹	do.....	Do.
Hankow-Chengtu line.....	1, over 800 tons; over 9 knots.....	Twice or more a month ¹	do.....	Do.
Ichang-Chungking line.....	In summer—2, under 15 years; over 500 tons; over 14 knots. In winter—2, over 250 tons; over 11 knots.	4 times or more a month ²	do.....	Do.
Dairen line.....	4, three of them under 20 years; over 5,000 tons; over 15 knots.	Twice or more a week.....	do.....	Osaka Shosen Kaisha.
Nagasaki-Shanghai line.....	2, under 15 years; over 5,000 tons; over 20 knots.....	Once or more every 4 days.....	do.....	Nippon Yusen Kaisha.
Kobe-Shanghai line.....	4 vessels.....	Once or more a week.....	do.....	Do.
Yokohama-Shanghai line.....	3 vessels.....	5 times or more a month.....	do.....	Do.
North China service:				
Kobe-Tientsin line.....	3, under 15 years; over 1,500 tons; over 12 knots.....	Once or more a week.....	do.....	Kinkai Yusen Kaisha.
Yokohama-Newchwang line.....	4, over 1,500 tons; over 12 knots.....	4 times or more a month.....	do.....	Do.
Chingtau service.....	3, over 3,000 tons; over 18 knots.....	6 times or more a month.....	do.....	Nippon Yusen Kaisha; Osaka Shosen Kaisha; Harada Kisen Kaisha.

¹ Provided that in the period during which the water of the river is diminished 2 vessels may be employed.

² Provided that in the period during which the water of the river is diminished the navigation may be suspended or the regular service decreased.

TABLE 68.—SHIPPING SERVICES ORDERED BY THE JAPANESE DEPARTMENT OF COMMUNICATIONS—Continued

Lines	Number of vessels, and gross tonnage and speed of each	Frequency of sailings	Duration of contract	Contracting company
Sea of Japan service:				
Vladivostok, direct line.....	1, over 2 000 tons; over 13 knots.....	Once or more a week.....	Apr., 1929, to Mar., 1932.	Kita Nihon Kisen Kaisha.
Vladivostok circuitous line.....	1, under 25 years; over 1,500 tons; over 11 knots.....	3 or more every 2 months.....	do.....	Kawasaki Kisen Kaisha.
Karafuto line.....	2, over 1,300 tons; over 12 knots.....	5 times or more a month.....	do.....	Kinkai Yusen Kaisha.
Petropavlovsk line.....	1, under 25 years; over 1,500 tons; over 10 knots.....	Once or more a month.....	do.....	Kuribayashi Shosen Kaisha.
Chosen west coast line.....	2, under 20 years; over 1,500 tons; over 10 knots.....	Twice or more a month.....	do.....	Chosen Yusen Kaisha.
Line connecting Nawa with Kagoshima.....	2, over 1,200 tons; over 12 knots.....	do.....	do.....	Osaka Shosen Kaisha.
Line connecting Nawa with Osaka.....	2, over 1,500 tons; over 10 knots.....	4 times or more a month.....	do.....	Do.
Line connecting Hokkaido with Honshu.....	2, over 800 tons; over 10 knots.....	Once or more every day.....	do.....	Kita Nihon Kisen Kaisha.
Near East service.....	Vessels navigating regularly between Japan and Europe employed; over 6,000 tons; over 14 knots.	Twice or more every 3 months.....	do.....	Nippon Yusen Kaisha.
Service calling at Habana.....	Vessels navigating regularly between Japan and the United States employed; over 5,000 tons; 14 knots.	Once or more every 2 months.....	do.....	Do.

* Provided that during the winter the navigation may be suspended.

Source: Financial and Economic Annual of Japan, 1930; pp. 212-214.

Of the 32 lines included in Table 68, 9 extend beyond Asiatic waters. All lines are ordered on a 3-year basis from April, 1929, to March 1932, except those to Seattle, San Francisco, and the west coast of South America, which are on a 5-year basis, beginning in January, 1929 or 1930, and ending in December, 1933 or 1934.

PROPOSED CARGO-VESSEL NAVIGATION BOUNTY

Recently a new development in the shape of a proposal for navigation bounties for cargo vessels has received considerable attention. Under this plan the Ministry of Communications proposed to grant a subsidy of 5,000,000 yen (\$2,490,000) a year for two years, according to the North China News for August 25 and September 2, 1930. This amount was to be limited to vessels in the overseas services, of at least 4,000 gross tons, 12 knots speed, and not more than 20 years of age. Vessels in the mail services or subsidized services and those registered after September 1, 1930, were excluded from the benefits of the proposal, and only those owners who operated fleets of at least 40,000 gross tons were considered in the plan. The subsidy rate was fixed at a figure of about 15 sen (\$0.075) per ton per 1,000 miles sailed.

This stimulus to Japanese cargo vessels would, it was thought, place them in a position, through employment, to yield additional freight income of 48,000,000 yen (\$23,900,000) annually, including 10,500,000 yen by the Nippon Yusen Kaisha, 15,300,000 yen by the Osaka Shosen Kaisha, 3,500,000 yen by the Kokusai Kisen Kaisha, 7,500,000 yen by the Mitsui Bussan shipping department, and 4,500,000 yen by other steamship companies. It was estimated that during the previous year freight revenues of Japanese steamship companies had declined by about 40,000,000 yen.

BUDGET ESTIMATES OF SUBSIDY REQUIREMENTS

Japan's budget estimates covering contract services and navigation bounties for 1914 and 1915 and certain years from 1920 on are shown in Table 69. From one-half to two-thirds of the total expenditures are for the principal overseas lines, while the remainder was provided for the Asiatic services and South Pacific services.

TABLE 69.—JAPAN'S BUDGET ESTIMATES FOR CONTRACT SERVICES AND NAVIGATION BOUNTIES

Fiscal year ¹	Total budget estimates		Central Government, yen	Chosen (Korea), yen	Taiwan (Formosa), yen	Japanese Sakhalin and South Sea mandates, yen
	Yen	Equivalent in United States currency ²				
1914-15.....	7,677,280	\$3,781,060	6,325,339	339,941	1,012,000	(³)
1915-16.....	7,900,132	3,887,655	6,377,447	510,685	1,012,000	(³)
1920-21.....	7,886,115	3,972,236	6,391,875	362,440	1,132,000	(³)
1921-22.....	10,866,233	5,210,369	8,852,355	881,878	(³)	(³)
1922-23.....	7,538,740	3,624,626	6,668,471	870,269	(³)	(³)
1923-24.....	7,669,686	3,646,169	6,825,787	843,898	(³)	(³)
1926-27.....	10,064,867	4,841,201	6,902,245	997,000	1,405,624	760,000
1927-28.....	10,001,263	4,692,593	6,338,639	997,000	1,405,624	760,000
1928-29.....	10,241,822	4,705,093	6,832,731	994,500	1,622,291	792,300
1929-30.....	10,823,924	5,102,398	7,361,000	992,000	1,675,624	795,300

¹ Fiscal years beginning Apr. 1.

² Converted at annual average for fiscal years as follows: \$0.4925 for 1914-15; \$0.4921 for 1915-16; \$0.5037 for 1920-21; \$0.4795 for 1921-22; \$0.4806 for 1922-23; \$0.4764 for 1923-24; \$0.481 for 1926-27; \$0.4692 for 1927-28; \$0.4594 for 1928-29; \$0.4714 for 1929-30.

³ Data not available.

CONSTRUCTION BOUNTIES

LAW OF OCTOBER 1, 1896

Up to the passage of the construction-bounty law of October 1, 1896, shipbuilding in Japan had lagged. During the war with China all available facilities were used in the repair of vessels, and, following hostilities and the enactment of the construction bounty law, practically all the tonnage necessary for the new lines established was ordered in Great Britain. In 1895 a 1,560-gross-ton steel vessel was launched at the Mitsubishi's Nagasaki yards, the first steel vessel over 1,000 gross tons to be built in Japan.

The law of 1896 granted Japanese shipyards a bounty of 12 yen (\$5.98) per ton on vessels between 700 and 1,000 gross tons and 20 yen (\$9.96) per ton on vessels of 1,000 gross tons and upwards. In addition, a bounty of 5 yen (\$2.49) per horsepower was granted on all engines constructed in Japan. The law stipulated that Japanese materials only should be used unless authority to use foreign materials was granted by the Minister of Communications.

While the navigation-bounty provisions of the 1896 law (see p. 335) were considered too high, the construction bounties were thought insufficient, due to the lack of native materials, of modern shipbuilding equipment, and of trained shipbuilding personnel. Despite this a 6,000-gross-ton vessel was launched from the Mitsubishi's Nagasaki yard in 1898. Added incentive to contract for tonnage in national yards was provided by the 1899 modification of the navigation bounties paid to foreign-built vessels.

MODIFICATION OF 1909

In the revision of 1909 construction bounties were restricted to steel vessels of at least 1,000 gross tons, built in Japanese shipyards, and were based upon type of vessel. For this purpose vessels were divided into two classes, known as A and B, and four grades.

Class A vessels comprised vessels equipped with 50 or more first and second class berths, or with one first or second class berth for each 100 tons of gross tonnage. Class B comprised all other vessels not qualifying for class A.

Grade 1 included ocean-going vessels of 500 gross tons and upwards with a speed of 8 knots or more. Grade 2 included vessels of a gross tonnage of at least 100 tons suitable for navigation in the near seas or Asiatic coast as far south as Hong Kong. Grade 3 included vessels of at least 25 gross tons, of a speed of at least 6 knots, and suitable for the coastal trade. Grade 4 included vessels suitable only for smooth-water navigation.

The rates of construction bounty grants under this law were as follows:

Class A—grade 1, 22 yen (\$10.96); grade 2, 21 yen (\$10.46); grade 3, 19 yen (\$9.46); grade 4, 14 yen (\$6.97).

Class B—grade 1, 19 yen (\$9.46); grade 2, 18 yen (\$8.96); grade 3, 16 yen (\$7.97); grade 4, 11 yen (\$5.48).

Restrictions were placed on the materials entering into the construction of vessels on which construction bounties were granted. Certain heavy parts, such as the rudder, stern post, shafting of more

than 7 inches diameter, the wheels, spindles, and turbine blades, and other parts not manufactured in Japan were not required to be of Japanese manufacture in vessels of less than 3,000 gross tons, while windlasses, winches, rudder machinery, pumps, life boats, ash hoists, and transformers on vessels between 3,000 and 5,000 gross tons were required to be of domestic manufacture.

A further bounty of 5 yen (\$2.49) per horsepower was granted for vessel machinery built in Japan.

Hull, machinery, and equipment were subject to specifications laid down by the Minister of Communications.

SHIP CONSTRUCTION UNDER 1909 LAW

The law of 1909 did not produce the expected results. The relationship between Japanese-built and imported vessels during this period is stated in Table 70.

TABLE 70.—JAPANESE PRODUCTION AND IMPORTATION OF VESSELS UNDER LAW OF 1909

Year	Vessels built in Japan		Vessels imported into Japan	
	Number	Gross tons	Number	Gross tons
1909.....	68	50,000	8	8,000
1910.....	71	35,000	20	40,000
1911.....	137	43,000	49	129,000
1912.....	170	43,000	24	49,000
1913.....	112	54,000	27	55,000

Thus the tonnage built in Japan at no time during the 5-year period reached an average size of vessel suitable for ocean service, except in certain individual ships for overseas subsidized lines, while the imported tonnage averaged upward of 2,000 gross tons per vessel for the period. As compared with an average annual production of 30,000 gross tons prior to the Russo-Japanese War of 1905, production had increased by approximately one-half, but in no year was the 1908 record of 68,000 gross tons reached until war conditions in Europe actually became manifest.

Imports of vessels following passage of the law of 1909 were not so large as during the peak of the Russo-Japanese War period, but were higher than during the period immediately prior to that war.

BOUNTY PAYMENTS UNDER 1896 AND 1909 LAWS

The total amount of ship-construction bounties granted by the Japanese Government under the laws of 1896 and 1909, with amendments, is stated in Table 71. This covers 20 years of the 22-year period from 1897 to 1918, the figures for 1912 and 1913 not being at hand.

TABLE 71.—TOTAL SHIPBUILDING BOUNTIES GRANTED BY JAPAN UNDER LAWS OF 1896 AND 1909

Year	Construction bounties			Year	Construction bounties		
	Yen	Equivalent in U. S. currency			Yen	Equivalent in U. S. currency	
		At par	At average exchange ¹			At par	At average exchange ¹
1897.....	13, 066	\$6, 507	\$6, 513	1908.....	1, 604, 576	\$799, 079	\$794, 265
1898.....	214, 498	106, 820	106, 927	1909.....	1, 284, 052	639, 458	637, 403
1899.....	187, 175	93, 213	93, 307	1910.....	1, 122, 813	559, 161	556, 242
1900.....	161, 143	80, 249	79, 524	1911.....	1, 162, 429	578, 890	575, 286
1901.....	578, 223	287, 955	286, 220	1914.....	1, 646, 528	819, 971	812, 397
1902.....	418, 442	208, 384	208, 593	1915.....	1, 557, 010	775, 391	762, 623
1903.....	433, 167	215, 717	215, 761	1916.....	3, 076, 946	1, 532, 319	1, 543, 396
1904.....	203, 259	101, 223	99, 922	1917.....	5, 231, 829	2, 605, 451	2, 650, 968
1905.....	82, 966	41, 317	40, 994	1918.....	2, 494, 679	1, 244, 840	1, 286, 585
1906.....	499, 947	248, 824	247, 325				
1907.....	679, 747	338, 514	336, 747				
				Total.....	22, 657, 195	11, 283, 283	11, 340, 998

¹ The rates of exchange used were: 1897-1899, \$0.4985 to the yen; \$0.4935 for 1900; \$0.495 for 1901; \$0.498 for 1902; \$0.4981 for 1903; \$0.4916 for 1904; \$0.4941 for 1905; \$0.495 for 1906; \$0.4954 for 1907; \$0.495 for 1908; \$0.4964 for 1909; \$0.4954 for 1910; \$0.4949 for 1911; \$0.4934 for 1914; \$0.4898 for 1915; \$0.5016 for 1916; \$0.5067 for 1917; \$0.5147 for 1918.

Thus, construction bounties averaged \$565,000 annually during the history of this form of aid to shipbuilding, the years 1912 and 1913 excepted.

END OF CONSTRUCTION-BOUNTY SYSTEM

The profits of the shipbuilding industry were so large (see p. 330) that there was no reason for continuing the construction-bounty system. Moreover, the drain on the public treasury was felt and public support to the system weakened. In 1913 only 5 vessels qualified for construction bounties and the amount granted was 990,000 yen (\$493,020 at par or \$490,248 at average exchange for the year); in 1914 bounties were granted to 16 ships, in the amount of 1,630,000 yen (\$811,740 at par or \$804,242 at average exchange); in 1915, 15 ships received 1,550,000 yen (\$771,900 at par or \$759,190 at average exchange); in 1916, 37 ships received 3,070,000 yen (\$1,528,860 at par or \$1,539,912 at average exchange). An investigation was made during the early part of 1917 as to the construction-bounty liability of the Government for the year, which disclosed that the Government might be called upon to grant bounties to 190 vessels aggregating 950,000 tons. The construction-bounty law was repealed on July 24, 1917, the effect of which action was to restrict the grants to vessels which had been recognized as eligible to bounties prior to July 24, 1917, and which would be completed and afloat by September 30, 1918.

The following comment on the construction-bounty system of Japan is made by Gotari Ogawa, Member of the Imperial Diet, dean and professor of public finance in Toyo Kyokai University:¹⁴

On the whole, the policy of encouragement failed to accomplish what was expected of it. When the demand for steamships increased with the increase in trade, the shipyards prospered; but the promotion of shipbuilding failed to

¹⁴ Ogawa: *The Effect of the World War Upon the Industry of Japan; Economic and Social History of the World War*, Japanese Series, p. 245.

encourage the development of shipping. On the other hand the development of shipping during the Russo-Japanese War, when the importation of foreign vessels was extraordinarily active, produced the activity of the shipyards in 1908. But from then on the industry failed to derive much value from the various laws passed for its encouragement.

STEEL BOUNTY LAW OF 1917

Japan's dependence upon foreign steel and iron for shipbuilding caused official action following the abolition of construction bounties. Official consideration of the necessity for stimulating native production had previously been given at Yawata. In 1915-16 the question of iron ores and the development of the native steel and iron industry was repeatedly discussed, with the result that in July, 1917, a law was passed for the purpose of encouraging the steel industry generally and shipbuilding materials particularly.

AMENDMENT OF 1921

In 1921 the law was amended to limit steel subsidies to Japanese products applicable to naval or merchant vessels only, the bounty being 12 to 15 per cent of the value for steel ingots and slabs and 15 per cent of the value for other steel materials, the value to be determined by the Minister of Agriculture and Commerce by fixing the standard on the basis of the imported price of the materials in the following categories:

1. Steel ingots and steel shapes for tempering;
2. Bars and rods, including tees, angles, and turbine blading;
3. Sheets and plates;
4. Tubes and pipes, not including those of cast iron and steel.

This amendment went into effect July 20, 1921.

AMENDMENT OF 1926

On April 10, 1926, an amendment became effective by which certain manufacturers of pig iron, steel, rolled steel products, forged and cast steel products, and blast-furnace by-products were given the powers of expropriation or use of land conferred by the land expropriation law of 1917, and were further to be exempted from the business tax, business-profits tax, and income tax for the year in which their plant reaches completion and for the subsequent 15 years, provided the completed plant is ready within specified periods varying from two to seven years. A proportionate exemption was also contemplated in respect of plant put into operation before the minimum capacity (35,000 metric tons of pig iron annually) qualifying for exemption has been reached, provided the requisite minimum is finally attained within the period of 15 years.

Freedom from taxation was also granted under similar conditions to firms that installed machinery for the manufacture of articles of wrought or cast steel to a minimum of 5,250 metric tons annually, and also to manufacturers of low-phosphorous pig iron, of crucible steel, or of electrically smelted iron to a minimum of 2,500 metric tons annually.

The exemption from Government taxation was accompanied in general by corresponding freedom from local imposts.

The subsidies which are paid to firms engaged in the manufacture of pig iron and steel vary in amount from 3 to 6 yen per metric ton (\$1.49 to \$2.99 per ton of 2,204.6 pounds) of pig iron produced.

In addition, subsidies were to be paid to makers of steel plates and other steel articles in respect of such quantities of steel products as may be used in the building or repair of iron or steel ships. These subsidies are as follows:

On steel ingots and steel shapes, 15 per cent ad valorem; on bars and rods, 18.33 yen per metric ton; on plates and sheets (a) not exceeding 3 millimeters in thickness 23.33 yen per metric ton, (b) exceeding 3 millimeters 18.33 yen per metric ton; on pipes and tubing (a) not exceeding 150 millimeters in internal diameter, 18 per cent ad valorem, (b) exceeding 150 millimeters, 15 per cent ad valorem.

Further help to the Japanese industry is given by exemption from import duty, for a period of 15 years, of tools, machinery, and other material required for iron and steel production.¹⁷

JAPANESE MARITIME CREDIT

Capital requirements for shipping equipment have increased enormously in Japan as elsewhere. Japan, unlike Sweden and the United States, does not directly lend money for ship construction from public loan funds especially created for that purpose. There are no ship-mortgage banks such as may be found in the Netherlands, Sweden, and, to a small extent, Norway, although a proposal for a special bank for advancing Government funds to shipowners and shipbuilders was announced in the Japan Advertiser of August 31, 1929.

The relationship between the Government of Japan and shipping finance resembles in principle that of the Government of France, in that public credit is extended through selected banks by special laws or through general powers under their charters; the direct Government appropriation as an interest subsidy to the banks for this purpose during 1930 was only 83,000 yen (\$41,000 at par). The close relationship between the Government and the banking system of Japan obviously places the Government in a dominant position in respect of the use of public credit for the promotion of shipping or shipbuilding enterprises.

For the past decade the question of shipping finance has been discussed in Japan, and various measures for low-rate loans have been proposed. The demand for capital may be observed in the figures of shipping and shipbuilding bonds and debentures outstanding in Japan at the end of the years 1923 to 1928, being 72,000,000 yen (\$35,856,000 at par of exchange) for 1923; 82,000,000 yen (\$40,836,000) in 1924; 121,000,000 yen (\$60,258,000) in 1925; 116,000,000 yen (\$57,768,000) in 1926; 141,000,000 yen (\$70,218,000) in 1927; 196,000,000 yen (\$97,608,000) in 1928; and 193,000,000 yen (\$96,114,000) in 1929.¹⁸

¹⁷ Board of Trade Journal, Aug. 12, 1926.

¹⁸ Bratter, Herbert M.: Japanese Banking, p. 155; issued as Trade Promotion Series No. 116 by the Bureau of Foreign and Domestic Commerce, Washington. See also Economic Statistics of Japan, 1929, p. 71, issued by the Bank of Japan.

During the World War Japanese bankers made large advances on the security of ships. The postwar shipping depression prevented shipowners from repaying loans and in some instances even interest on the loans, which led some banks to take over the ships and operate them. The general result was to make shipping securities less attractive at a period when the Japanese shipping industry had ventured into the world trades generally, in competition with established, experienced world services.

Japanese shipping was concentrated early into large units. The purchase of vessels by the Government and subsequent transfer of this equipment to private companies placed the operating companies in an excellent position as owners of low-cost tonnage. The relatively short range of operation in Asiatic waters did not require expensive replacement of vessels. The Government subsidy of 8 per cent on paid-up capital, as was the case of the Nippon Yusen Kaisha, made that concentration of shipping an attractive field for capital. A result was the building up of large reserves for all purposes, upon which the companies could draw during periods of deflation. For several years the Nippon Yusen Kaisha paid its dividends partly out of its dividend-equalization reserve fund, which in 1922 amounted to 19,800,000 yen (\$9,860,000).

However, the great liner companies which maintain the "ordered" sea communication system of Japan have not been as active in the agitation for low-interest Government loans as have been the charter-tonnage owners, who, as stated, have concentrated their tonnage into large operating units. Next after the Nippon Yusen Kaisha and the Osaka Shosen Kaisha, the Kokusai Kisen Kaisha (International Steamship Co.) operates the largest fleet under Japanese registry, including 47 cargo vessels of an average gross tonnage of about 5,250 and a total tonnage of 247,236 gross tons, all built during 1919 and 1920. The largest indirect loan of public funds in recent years has been to that company.

SPECIAL-BANK FACILITIES

THE DEPOSITS BUREAU

The public and private financial system of Japan is so organized that promotion of essential industries in the public interest may be undertaken by the Government. Many industries are Government monopolies and some, like the steel industry, are directly promoted by the Government through Government-owned plants and through authorized bounties and other privileges.

The source of public funds which find their way into shipping enterprises is the Deposits Bureau of the Ministry of Finance, which is a repository for public funds.¹⁹ To it are intrusted the postal savings and postal transfer savings (which together form its largest account), the proceeds of savings and reconstruction savings certificates, and certain sums transferred from special accounts of the Government.

Moneys thus received by the Deposits Bureau are invested in national, prefectural, municipal, and Hypothec Bank bonds, principally; in foreign government bonds; and in direct and indirect ad-

¹⁹ Bratter, *op. cit.*, p. 218.

vances to various organizations, both public and private, domestic and foreign. Investments may be made "solely for the benefit of the State and the public welfare in a profitable and safe manner." One of the bureau's chief activities is the making of loans to special banks not authorized to issue debentures and to Japanese and foreign organizations which the Government may desire to assist. Such loans are those to the Government-controlled Bank of Chosen, Bank of Taiwan, the Oriental Development Co., and through these and other organizations to steamship, railway, mining, and similar companies.

THE INDUSTRIAL BANK

Among the special banks through which the Deposits Bureau operates is the Government-controlled Industrial Bank of Japan (Nippon Kogyo Ginko), established in 1902 as a joint-stock company under the law of 1900 providing for the organization of a bank to advance long-term funds on the security of movable property. The Industrial Bank was primarily designed as an institution to furnish industry with long-term loans on the security of national, prefectural, or municipal bonds, company debentures and shares, mortgages of estates, lands and buildings, etc. To raise funds for various operations, the Industrial Bank was granted the power to issue debentures not exceeding 10 times the amount of its paid-up capital.

Apart from its function of aiding in the distribution of loanable capital within Japan, the Industrial Bank was designed to bring foreign capital into the country at favorable opportunities. Thus, in August, 1924, an issue of 6 per cent notes was offered in New York at 99¼, to mature in 1927. The amount of the issue was \$22,000,000, bearing the guaranty of the Japanese Government.

The Financial and Economic Annual of Japan for 1930 gives among the present charter functions of the Industrial Bank of Japan the following:

(8) To make, on mortgage of ships or ships under construction, loans which shall be redeemable by annual installments within a period not exceeding 15 years, or at a fixed term of not more than 5 years; (9) to make loans on security of shipbuilding materials or equipment.

Because of the extreme depression in the shipping business, the Industrial Bank for several years prior to 1929 had discontinued making advances to shipping companies. The Japan Advertiser of May 19, 1929, reported the resumption of this activity. It stated that 2,800,000 yen had been advanced on the security of seven medium-sized vessels. Advances were for less than 15 years and bore interest at 8 or 8½ per cent.

ADVANCES TO SHIPPING AND SHIPBUILDING

KOKUSAI KISEN KAISHA

Further information on these operations is seen in a statement of outstanding advances of the Deposits Bureau issued by the Ministry of Finance in March, 1929, where, under the general head of investments in home enterprises, is listed an amount of 32,500,000 yen (\$16,185,000), of which 29,200,000 yen (\$14,542,000) represents advances to the Kokusai Kisen Kaisha.

Other ramifications of the Kokusai Kisen Kaisha and its relation to shipping and shipbuilding finance were shown when the failure of the Fifteenth Bank in April, 1927, caused the failure of the Kawasaki Dockyards, one of the two principal shipbuilding companies in Japan. From 1924 the dockyards company paid dividends, drawing on reserves to do so. Among its reserves listed soon after the failure were securities that included 876,472 shares of the Kokusai Kisen Kaisha and 399,455 shares of the Kawasaki Steamship Co., owners of a fleet of about 20 vessels of 70,000 gross tons, on which an aggregate value of 33,218,000 yen (\$16,543,000) had been placed.

A number of considerations prompted both the Government and creditor banks to prevent the Kokusai Kisen Kaisha from going into liquidation. Sale of the fleet then owned at 60 yen (\$29.88) was estimated to bring only 27,600,000 yen (\$13,745,000), as against preferred liabilities of 71,700,000 yen (\$35,707,000), including advances of 29,200,000 yen (\$14,542,000) by the Deposits Bureau through the Industrial Bank, loans of 30,000,000 yen (\$14,940,000) by the Industrial, Dai-ichi, and Fifteenth Banks, and mortgage debentures of 11,500,000 yen (\$5,727,000). The Government was unable to subsidize the vessels owing to their slow speed and irregular or tramp employment; cancellation of the advances made by the Deposits Bureau was believed inexpedient because of their amount and the possibility of loss of public confidence in the company; yet both the Government and the Industrial Bank feared the demoralizing effect of throwing such a large block of tonnage on the market through forced sale.

The Industrial Bank, supported by the Government, took over control of the company, placed it under its own management, and obtained the shares held by the Kawasaki and other interests in exchange for cancellation of these interests' liabilities on indorsements of the Kokusai Kisen Kaisha bank loans. The Kawasaki interests surrendered shareholdings in the Kokusai paid-up capital in the amount of 45,000,000 yen (\$22,410,000) and other interests an amount of 14,000,000 yen (\$6,972,000). These preliminary steps having been completed, officials of the creditor banks and the Government prepared a plan of temporary readjustment which was approved by the Japanese Cabinet on December 22, 1927.²⁰

REORGANIZATION PLAN

The temporary plan was redemption of outstanding debentures by September, 1929, reduction of capital to 12,000,000 yen, cancellation of interest charges on loans by the Deposits Bureau and the three banks, the transfer of six vessels from the ownership of the Kawasaki Kisen Kaisha (Kawasaki Dockyards subsidiary), and the sale of the older vessels in the fleet to cover deficits in operations and redemption of debentures.

A permanent reorganization plan then proposed for the consideration of the Diet provided for repayment of Deposits Bureau advances by appropriations from the Japanese Treasury, and the amount of the loan to be converted into capital stock to be held by the Ministry of Communications, thus making the Government a shareholder in

²⁰ Report of Vice Consul George J. Haering, Kobe, Jan. 4, 1928.

the steamship company; bank loans outstanding to be converted into capital stock to the face value of the loans.

This still left the company in an inflated capital position as the assets, comprising tonnage only, were not considered worth more than 30,000,000 yen. Assistant Trade Commissioner H. B. Titus reported on November 6, 1929, that a stockholders' meeting had then been held to consider a proposed cut in capital from 80,000,000 yen to 20,000,000 yen for the purpose of covering past losses and writing off the book value of the vessels. The creditors agreed that both principal and interest might remain unpaid for the next five years.

NIPPON YUSEN KAISHA

While some shipping and shipbuilding securities were badly affected by the financial panic of 1927, some companies were placed in a favorable position to issue debentures by the resulting easy money market following in 1928. Thus the Nippon Yusen Kaisha, which was pressed by the Ministry of Communications to again undertake subsidized trans-Pacific services to California upon the inability of the Toyo Kisen Kaisha to continue its California services, undertook to finance its new tonnage. A partial amalgamation between the companies was effected, by which the Nippon Yusen Kaisha took over the California line and the west coast of South America line of the Toyo Kisen Kaisha and increased its (N. Y. K.) capital from 100,000,000 yen to 106,250,000 yen (from \$49,800,000 to \$52,913,000).

The Nippon Yusen Kaisha undertook to build a fleet of 9 motor ships, comprising 3 vessels of 51,200 gross tons for the California line, 3 vessels of 34,800 gross tons for the Seattle service, 2 vessels of 23,600 gross tons for the London service, and 1 vessel of 9,700 gross tons for the South American service, an aggregate of 119,000 gross tons. In respect of the financing of this building program the Far Eastern Review of March, 1930, states:

When the Nippon Yusen Kaisha authorities decided to build these nine 10,000-ton class motor ships, no doubt due chiefly to stimulation given by the improvement of service of foreign shipping companies operating in the Orient, a budget of 80,000,000 yen was appropriated. It was also decided then that debentures be issued to the amount of 60,000,000 yen and that the rest of the expenditures be covered by the reserves held by the company. The debentures were issued in three lots; the first of the series was an issue of 15,000,000 yen, bearing 7 per cent interest, but the second and the last were 15,000,000 yen and 30,000,000 yen respectively, bearing 5.5 per cent interest.

Concentration of large deposits in the principal cities and the caution exercised after the 1927 panic combined to produce a superfluity of funds for which profitable employment grew increasingly difficult.²¹ Taking advantage of this situation a general meeting of stockholders of the Nippon Yusen Kaisha on July 4, 1928, authorized the flotation of debentures in the amount of 30,000,000 yen (\$14,940,000) the proceeds of which were designed to cover the cost of the three vessels building for the service between the Far East and Puget Sound and a portion of the cost of construction for the service between the Far East and San Francisco.

²¹ Bratton, *op. cit.*, p. 50.

MITSUI BUSSAN KAISHA

The Mitsui Bussan Kaisha, a prominent trading company, maintains one of the largest Japanese cargo fleets and in 1929 announced an extensive construction program, to cost 20,000,000 yen and to be carried out in the Mitsui subsidiary, the Tama Dockyard. The Trans-Pacific for October 24, 1929, stated, in a discussion of the proposed Government loan fund through the Deposits Bureau, that the Mitsui Bussan Kaisha maintains deep-sea services but was not likely to be involved in the promotion of the loan program, since it has funds with which to build the contemplated motor ships. The Mitsui company owns about 40 vessels, including some small units, with a total gross tonnage of 115,000. Expressed in dead-weight carrying capacity this fleet is reported as 180,000 tons.

In conformity with the principle of transporting its own goods by its own ships, the company planned to enlarge its fleet. The press discussion stated that the trading company handles about 8,000,000 tons of water-borne business in its trading operations annually, of which 5,000,000 tons are its own goods. The company was said to carry 1,650,000 tons of cargo, or 33 per cent, by its own ships and the remaining 67 per cent in chartered vessels, and that the company has found it more profitable to carry its own cargo by its own ships. These reasons are cited in connection with the proposed building program.

PLAN FOR LOANS FOR CARGO-VESSEL CONSTRUCTION

In 1929 a basic program concerning ship and shipbuilding financing was framed by the Ministry of Finance to be submitted to the International Credit and Debt Investigation Commission. The original plan proposed the advance of 50,000,000 yen (\$24,900,000) from the Deposits Bureau, a 30-year term of redemption, interest rate of 4.8 per cent annually for advances made direct from the Deposits Bureau and 6 per cent for advances made through the Industrial Bank. The loans were to be limited to construction of motor vessels of stated speed and size only, and no companies then receiving subsidies were to be eligible.

Broadly the proposal rested on the theory of improving the position of the international payments of Japan through greater employment of Japanese vessels and increased revenues from freights. The principal participants in the scheme were the larger cargo-ship owners operating in the transoceanic trades, including the Kokusai Kisen Kaisha, Yamashita Steamship Co., Kawasaki Steamship Co., and others.

The bill as approved by the International Credit and Debt Investigation Commission provided for a loan-fund limit of 30,000,000 yen (\$14,940,000), to be advanced through the Industrial Bank of Japan in the amounts of 5,000,000 yen for 1930, 10,000,000 yen in 1931, 10,000,000 yen in 1932, and 5,000,000 yen in 1933. The term of the advances was 15 years, with a 2-year nonredemption period and 13 years for repayment. Advances were limited to two-thirds the value of vessel as appraised by the Ministry of Communications and secured by a first mortgage on the vessel. Vessels of less than 5,000

gross tons and 14 knots speed are not eligible for advances. Interest rates may not exceed 6 per cent, and the Government is to contribute from 1.5 to 2 per cent of the interest.

The bill was adopted during the extraordinary session of the Diet, and went into effect June 1, 1930. An appropriation of 83,334 yen (\$41,500) was made to cover the interest contribution. The Trans-Pacific for September 25, 1930, stated that the Osaka Shosen Kaisha was then the only shipping company that had applied for a loan under the financing regulation. It was said that this company had applied for an advance of 3,000,000 yen for construction of freighters for its New York service, but that the advance had not then been granted. The reason given for the apparent lack of interest in the plan was that shipping companies found it unnecessary to build new vessels under the prevailing economic slump.

The Government estimated that the type of vessel contemplated in the law could be built within a range of 170 to 250 yen (\$84.66 to \$124.50) per gross ton and that the advances would cover the construction of 18 vessels of an aggregate tonnage of 180,000 gross tons.

PREFERENCES AND RESTRICTIONS

RESERVATION OF THE COASTING TRADE

Before 1894 the Japanese coasting trade was open to foreign vessels. From 1894 to 1910 foreign vessels were restricted to trade between Nagasaki, Kobe, Yokohama, and Hakodate. From 1911 on the Japanese coasting trade has been restricted to vessels of Japanese nationality, and the monopolization of the coasting trade since that time has been an important factor in the development of Japanese shipping.

The coasting laws, while similar in character, are separately applicable to Japan proper, Chosen (Korea), Taiwan (Formosa), the Kwantung Leased Territory, and to Karafuto (Sakhalin). The following discussion of the coasting laws is from a report submitted by Trade Commissioner Paul F. Steintorf, Tokyo, May 27, 1929:

The entry of foreign vessels is limited to "open ports" only, with certain exceptions. Article 3 of the shipping law reads:

"Only Japanese vessels shall be permitted to enter an unopened port or engage in the transportation of goods or passengers between Japanese ports. This rule does not apply, however, in instances where special provision is made for same either by ordinance or treaty, or in cases of stress of weather or evading capture or when special permission is obtained from the competent Minister of State."

Exceptions.—Article 98 of the customs act reads:

"In case of necessity for the repairing of a vessel or the discharge or loading of heavy cargo which could not be discharged or loaded at an open port, the customs commission may permit foreign trading vessels to enter into an unopened port."

This rule applies also in cases where a foreign vessel discharges or loads cargo at a destination between which destination and the nearest open port the transportation facilities are extremely bad. The same rule may also be applied to passenger traffic in case the passenger has a through ticket to a destination outside the Empire of Japan, or may be applied to cargoes consigned on a through bill of lading.

It is understood that the competent Minister of State may grant special permission to enter an unopened port or to transport passengers or cargo between Japanese ports in the case of vessels on world tours and to Govern-

ment commissions, students, and the like. Special treatment is accorded British vessels under a supplementary convention to the treaty of commerce and navigation between Japan and Great Britain.

DEFINITION OF NATIONALITY

The Japanese shipping law defines "Japanese vessels" as those owned by any department or agency of the Japanese Government, by Japanese subjects, and by various trading companies and corporations which have their head offices in Japan proper.

The same regulations, with variations, apply to Chosen, Taiwan, Kwantung, and Karafuto.

EXEMPTION FROM FISCAL CHARGES**IMPORT DUTIES**

Article 1 of an imperial order of December, 1906, provided for rebate of import duties on imported shipbuilding materials.

THE NETHERLANDS

ECONOMIC DEVELOPMENT AND SHIPPING

The Netherlands, with an area of only about 12,000 square miles, lying between Germany and Belgium on the North Sea, has, in Rotterdam, one of the three leading ports in Europe. It ranks historically and commercially as one of the first maritime countries.

There are 2,000 miles of canals, which constitute the most important inland transportation means as well as the outlet to the sea for the immense Rhine and Scheldt river traffic.

Navigable rivers into the interior of Europe combined with the network of navigable waterways in the Netherlands place the country in a highly advantageous position in respect of water transport. The economic position of the Kingdom in respect of shipping is not stable but is highly dependent upon general economic conditions in the European interior and their relationship to the rest of the world. The national products and trade of the Netherlands would not alone create the ocean traffic that centers in the country.

NEED FOR SEA COMMUNICATION WITH COLONIES

The colonial interests of the Netherlands, comprising the Netherland East Indies, western New Guinea, and others, with a total native population of nearly 50,000,000, are second only to those of Great Britain. Practically all the islands to the south of the Philippine group belong to the Netherland East Indies.

The colonies are a most important outlet for Netherland industry, and colonial products have made the Netherland markets centers for international colonial trade. The colonies formed a great stimulus to the expansion of the modern merchant marine, and have for centuries offered a field for capital investment for the home country. Since passage of the shipping act of 1865, the foreign shipping trade of the Netherland East Indies is free to all nationalities, and since 1912 the coastal trade within the archipelago also is open to all nations, although not all ports are open to general trade.¹

Discriminations against merchant shipping, however, played their part in provoking the maritime wars of the seventeenth century between the Netherlands and England, by which England acquired New Netherlands (New York and both banks of the Hudson River to Albany) and the Netherlands retained Netherland Guiana (Surinam). Early in the nineteenth century England also acquired from the Netherlands the colony of the Cape of Good Hope and began the foundation of the British Empire in Africa. The Netherland policy of preferential duties for cargoes carried in Dutch

¹ Netherlands Foreign Office: *Holland and Her Colonies*, p. 151.

ships between the Netherlands and its remaining colonies was not wholly abandoned, however, until 1872.

WATER-BORNE COMMERCE

Approximately 85 per cent of the trade of the Netherlands is carried by sea or by the waterways.² Rotterdam is a most important transit point, and the traffic that moves through this port is principally of bulk character, consisting of such cargoes as coal, ore, lumber, grain, petroleum, and phosphate.

Figures of the transit and transshipment traffic in all Netherland ports for 1927, 1928, and 1929 are given in Table 72. The totals do not include bunker coal and oil for Dutch vessels.

TABLE 72.—NETHERLANDS WATER-BORNE TRAFFIC¹ WITH FOREIGN COUNTRIES, 1927-1929

Character of traffic	1927	1928	1929
1. Discharged from ships for direct consumption or into bonded warehouses:			
(a) Sea-going vessels.....	<i>Metric tons</i> 11,181,736	<i>Metric tons</i> 11,573,191	<i>Metric tons</i> 12,281,631
(b) River and canal vessels.....	12,787,270	13,546,023	13,450,349
2. Loaded into ships for export direct or out of bond:			
(a) Sea-going vessels.....	6,098,727	6,085,357	5,802,978
(b) River and canal vessels.....	3,574,701	4,536,193	4,524,566
3. Discharged from ships for direct transit, not out of bonded warehouse:			
(a) Sea-going vessels.....	21,478,620	18,590,901	21,006,973
(b) River and canal vessels.....	13,767,773	11,942,665	12,423,261
4. Loaded into ships in direct transit, not out of bonded warehouse:			
(a) Sea-going vessels.....	14,613,194	13,026,739	13,397,751
(b) River and canal vessels.....	20,487,642	17,300,075	19,732,044
SUMMARY			
Sea-going traffic.....	53,372,277	49,276,188	52,489,333
River and canal traffic.....	50,617,386	47,324,956	50,130,220
Total traffic.....	103,989,663	96,601,144	102,619,553
Of which:			
Rotterdam's share was.....	73,928,882	64,148,445	69,244,810
Amsterdam's share was.....	8,047,217	9,053,833	9,691,179

¹ Exclusive of bunker coal and oil.

Source: Central Bureau of Statistics, The Hague.

Coal and oil bunkering are presented in Table 73.

TABLE 73.—COAL AND OIL BUNKERING IN NETHERLAND PORTS, 1927-1929

Fuel	Dutch vessels			Foreign vessels		
	1927	1928	1929	1927	1928	1929
Coal.....	<i>Metric tons</i> 1,202,403	<i>Metric tons</i> 1,188,344	<i>Metric tons</i> 1,092,355	<i>Metric tons</i> 2,245,135	<i>Metric tons</i> 2,144,443	<i>Metric tons</i> 1,973,368
Oil.....	52,451	59,263	66,247	64,940	47,234	43,807
Total fuel.....	1,254,854	1,247,607	1,158,602	2,310,075	2,191,677	2,017,175

Source: Report of Vice Consul Eugene W. Nable, Rotterdam, Mar. 15, 1930.

² Report of Vice Consul Eugene W. Nabel, Rotterdam, Mar. 4, 1931.

In 1930 bunkering operations in Netherland ports comprised 1,005,000 tons of coal and 56,000 tons of oil, total 1,061,000 tons, taken by Dutch vessels; and 1,819,000 tons of coal and 46,000 tons of oil, total 1,865,000 tons, taken by foreign vessels.

Coal and ores were the principal commodities transshipped through Rotterdam during 1929 and 1930. Coal, coke, and briquet shipments discharged from seagoing, river, and canal vessels, and loaded into seagoing vessels totaled 24,339,000 metric tons in 1929 and 21,608,000 tons in 1930. Ores discharged at Rotterdam from seagoing vessels and loaded into river and canal vessels totaled 20,752,000 metric tons in 1929 and 17,415,000 tons in 1930.

Rail shipments from foreign countries to Rotterdam amounted to only 301,000 tons for 1928, 261,000 tons in 1929, and 176,000 tons in 1930; outgoing shipments to 135,000 tons in 1928, 130,000 tons in 1929, and 151,000 tons in 1930.

SHIPPING FINANCE

As a result of long experience in domestic and foreign shipping, the Netherlands' banking system offers adequate facilities for shipping finance, principally through the system of bottomry banks. These are peculiarly Netherland institutions, some of which have assumed the title of "ship mortgage bank." This title is not strictly accurate inasmuch as mortgages on ships are not recognized in Netherland law. Loans against the security of ships cover only certain preferential claims, according to a ruling by the High Council in a decision of January 18, 1907.³

To prevent vessels from being offered as security for several loans a recording office "for the safe-keeping of ship's letters" was established in 1836, which therefore is in effect a central vessel credit registry office.

THE NETHERLAND COMMERCIAL FLEET

GROWTH OF THE MERCHANT MARINE

For the purpose of establishing the relative maritime position of the Netherlands in international shipping and trade, and thus form a basis for measurement of Government interest in the maintenance or development of this position, it is essential to present some of the factors that affect the Netherlands' shipping. The following discussion of the present status of shipping and shipbuilding is based primarily upon numerous detailed reports prepared by American Vice Consul Eugene W. Nabel, at Rotterdam.

The Netherland merchant fleet has increased six-fold since 1895, the 3,118,170 gross tons of July 1, 1931, contrasting with 446,861 gross tons for the earlier year and ranking eighth among the commercial fleets of the world. Lloyd's Register figures for the period 1895-1931 are given in Table 74.

³ Holland and Her Colonies, p. 125.

TABLE 74.—GROWTH OF THE NETHERLAND COMMERCIAL FLEET

July 1—	Total fleet †	Power-driven vessels †	Sailing vessels †	July 1—	Total fleet †	Power-driven vessels †	Sailing vessels †
	<i>Gross tons</i>	<i>Gross tons</i>	<i>Gross tons</i>		<i>Gross tons</i>	<i>Gross tons</i>	<i>Gross tons</i>
1895.....	446,861	315,196	131,665	1926.....	2,564,904	2,552,613	12,291
1900.....	530,277	467,209	63,068	1927.....	2,654,003	2,645,025	8,978
1905.....	701,754	659,409	42,345	1928.....	2,816,705	2,809,375	7,330
1910.....	1,015,193	983,049	32,144	1929.....	2,939,067	2,932,420	6,647
1915.....	1,522,547	1,498,519	24,028	1930.....	3,086,315	3,079,000	7,315
1920.....	1,793,396	1,773,392	20,004	1931.....	3,118,170	3,111,357	6,813
1925.....	2,600,831	2,587,789	13,042				

† Vessels of 100 gross tons and upwards.

Source: Lloyd's Register of Shipping.

OWNERSHIP OF THE FLEET

Ownership of the fleet is concentrated in a few powerful organizations. Although there are a hundred or more overseas shipping companies in the Netherlands, 26 of them on January 1, 1931, owned 2,614,270 gross tons and had 146,465 gross tons additional under construction. Nine of these companies own fleets amounting to more than 100,000 tons, as is shown below.

TABLE 75.—NETHERLAND SHIPPING COMPANIES OWNING MORE THAN 100,000 GROSS TONS ON JANUARY 1, 1931

Company	Present fleet			Under construction
	Passenger vessels	Freight vessels	Total tonnage	
	<i>Number</i>	<i>Number</i>	<i>Gross tons</i>	<i>Gross tons</i>
Nederland Steamship Co.....	9	36	372,582	24,950
Holland America Line.....	9	22	307,010	-----
Royal Packet Navigation Co.....	84	55	283,898	4,920
Rotterdam Lloyd.....	8	31	296,807	24,300
Royal Netherland Steamship Co.....	13	78	253,710	-----
United Netherlands Shipping Co.....	-----	31	194,617	-----
Van Nievelt, Goudriaan & Co.....	-----	24	117,000	-----
Java-China-Japan Line.....	9	9	119,000	19,200
Royal Dutch Lloyd.....	4	12	108,000	-----
Total.....	136	298	2,052,624	73,370

Source: Report of Vice Consul Eugene W. Nabel, Rotterdam, Mar. 4, 1931.

Of the 26 important shipping companies referred to above 15 declared dividends during 1928 and 10 in 1929 and 1930. The principal dividend payments were made by the three large Netherland East Indies shipping companies, which, because of their privileged position, practically control the trade from, to, and between the Netherland East Indian colonies. The Royal Packet Navigation Co. (Koninklijke Paketvaart Maatschappij), which plies in East Indian waters, declared a 10 per cent dividend in 1925, 12 per cent in 1926, 13 per cent in 1927, and 14 per cent in 1928, 1929, and 1930. The Rotterdam Lloyd in 1925 declared a 5 per cent dividend, 7½ per cent in 1926, 8½ per cent in 1927, 10 per cent in 1928, 11 per cent in 1929, and 9 per cent in 1930. The Nederland Steamship Co. (Nederland

Stoomvaart-Maatschappij) declared a 9 per cent dividend in 1925 and 1926, 10 per cent in 1927, 11 per cent in 1928, 11½ per cent in 1929, and 10 per cent in 1930.

CAPITAL AND EARNINGS

Other financial returns for the year 1930 are not yet available. In 1929 18 leading Netherland shipping companies, 7 of them operating passenger and cargo steamers and 11 operating freighters exclusively, with a combined gross tonnage of 1,998,000, had capital, reserves, and bonded indebtedness as follows:

TABLE 76.—CAPITAL AND RESERVES OF 18 LEADING NETHERLAND SHIPPING COMPANIES AS OF JANUARY 1, 1929 AND 1930

Company	Capital		Reserves		Bonded indebtedness	
	Florins	Equivalent in United States currency ¹	Florins	Equivalent in United States currency ¹	Florins	Equivalent in United States currency ¹
7 passenger and freight companies:						
Jan. 1, 1929.....	146,592,500	\$58,637,000	157,820,000	\$63,128,000	60,552,500	\$24,221,000
Jan. 1, 1930.....	156,642,500	62,657,000	149,777,500	59,911,000	58,182,500	23,273,000
11 freight companies:						
Jan. 1, 1929.....	42,195,000	16,878,000	18,072,500	7,229,000	12,305,000	4,922,000
Jan. 1, 1930.....	44,205,000	17,682,000	18,210,000	7,284,000	11,587,500	4,635,000
All 18 companies:						
Jan. 1, 1929.....	188,787,500	75,515,000	175,892,500	70,357,000	72,857,500	29,143,000
Jan. 1, 1930.....	200,847,500	80,339,000	167,987,500	67,195,000	69,770,000	27,908,000

¹ Converted at the rate of \$0.40 to the florin.

Source: Report of Vice Consul Eugene W. Nabel, Rotterdam, Oct. 30, 1930.

These 18 companies operated in 1929, 467 passenger, freight, and tank vessels of 1,997,998 gross tons, as compared with 462 vessels of 1,960,791 tons in the preceding year. As of January 1, 1930, this fleet was carried on the companies' books at 313,312,000 florins (\$125,325,000), against 311,990,000 florins (\$124,796,000) on January 1, 1929—which values include several small vessels (tug boats, tenders, etc.) not counted in the total number.

As of January 1, 1930, the average book value per gross ton of the 7 passenger-and-cargo fleets, representing 349 vessels of 1,538,597 gross tons, was 165 florins, or \$66; of the 11 freighter fleets, representing 118 vessels of 459,401 gross tons, 125 florins, or \$50; an average for the combined fleets of 156 florins, or \$62.40, per gross ton. For individual companies, the book value per ton ranged from 128 to 226 florins (from \$51.20 to \$90.40) for the passenger-and-cargo services and from 69 to 229 florins (from \$27.60 to \$91.60) for the freighters.

The gross working profits of the 7 companies maintaining both passenger and freight services were 44,822,500 florins (\$17,929,000) in 1929, against 45,627,500 florins (\$18,251,000) in 1928; and of the 11 companies operating freight services only, 8,945,000 florins (\$3,578,000), against 8,342,500 florins (\$3,337,000). Gross earnings of the entire Netherland merchant marine are not at hand.

DEVELOPMENT OF NETHERLAND SHIPBUILDING**EXTENT OF INDUSTRY**

The shipbuilding industry of the Netherlands, which in 1929 ranked third in world production, dropped to fourth place in 1930, being exceeded by the British, German, and United States industries. Thus, of total launchings of 2,889,472 gross tons during 1930, British shipyards are credited with 1,478,563 gross tons, German shipyards with 245,557 gross tons, the United States with 246,687 gross tons, and Netherland shipyards with 153,072 gross tons. This is of particular interest inasmuch as the accepted requisites for a national shipbuilding industry are usually those of native sources and proximity of iron ores and coal and a flourishing steel industry. The Netherlands is dependent upon imported materials.

According to Lloyd's Summary of Shipping there were 2,326,086 gross tons of shipping under construction in all countries on January 1, 1931. The Netherlands stood in sixth place, its 160,078 gross tons being preceded by Great Britain's 908,902 gross tons, the United States' 232,030 gross tons, France's 174,215 gross tons, Germany's 218,215 gross tons, and Italy's 179,677 gross tons.

Netherlands' shipbuilding industry is centered principally in South and North Holland and comprises approximately 100 plants which when operating under full capacity employ 35,000 men. On August 23, 1929, Vice Consul Nabel reported 106 concerns employing 33,000 men, 10 of the leading yards being equipped for the construction of large ocean-going freight and passenger vessels.

LABOR CONDITIONS

The principal national contribution to shipbuilding in the Netherlands is labor. Effective January 1, 1929, the legal weekly working time was reduced from 50 hours to 48. Permission to work overtime is granted up to 60 hours for yards engaged in repair work and 54 hours for yards constructing new tonnage. Overtime is paid at 25 to 50 per cent more than the wage schedule prescribes. Sunday and legal-holiday overtime is paid at 100 per cent extra.

Shipbuilding and ship-repairing wages are governed by the wages of the metal industry. These, on January 1, 1929, were as stated in Table 77.

TABLE 77.—WAGES AND INCOME OF NETHERLAND METAL-INDUSTRY WORKERS,
JANUARY 1, 1929

Class	Number of workmen	Age, in years	Average wages per hour		Average income per hour	
			Florin	Equivalent in United States currency ¹	Florin	Equivalent in United States currency ¹
GROUP A						
Skilled workmen.....	9,693	30-65	0.60	\$0.241	0.74	\$0.297
Semiskilled workmen.....	7,659	25-65	.52	.209	.64	.257
Unskilled workmen.....	5,426	25-65	.46	.185	.54	.217
GROUP B						
Skilled workmen.....	9,605	14-29	.368	.148	.428	.172
Semiskilled workmen.....	4,436	14-27	.308	.124	.368	.148
Unskilled workmen.....	4,178	14-25	.258	.104	.328	.132

¹ Converted at the par rate of \$0.402 to the florin.

The figures in Table 77 are based upon the actual pay rolls of 97 concerns which are members of the Normalization Bureau of Labor Questions in the Metal Industry, and cover 22,778 workmen in group A and 18,219 workmen in group B. Average wages per hour means regular wages per hour, exclusive of extras; average income per hour includes overtime earned.

SHIPBUILDING MATERIALS

Lack of native mineral supplies does not affect the Netherlands' shipbuilding industry; the great metal industries of central Europe provide the principal heavy metal products required. During the war considerable difficulty was experienced in obtaining imports of half-finished and raw materials, which raised the question of the establishment of blast furnaces and rolling mills within the Kingdom. In considering this the Government in 1917 proposed a bill to authorize the Minister of Finance to participate to the extent of 7,500,000 florins (\$3,000,000) in a blast furnace, steel plant, and rolling mill company with a capitalization of 25,000,000 florins (\$10,000,000). Authorization was granted by the law of July 26, 1918, and it was decided to choose as site for the new works the north side of the North Sea Canal between Velsen and Ymuiden. Operations commenced in 1923.

LEASE OF GOVERNMENT SHIPYARD

When in 1874 the navy establishment at Flushing was discontinued, King William III requested Arie Smit, a shipbuilder in Slikerveer, near Dordrecht, to take over the plant under a 99-year lease and start a private shipyard. The following year (1875) Mr. Smit formed the Royal Shipbuilding & Engineering Works "De Schelde." The lease, which was to be revised in 1913, provided that all buildings, installations, etc., constructed by the yard should be taken over by the Government at cost price (which at the end of

1925 totaled \$2,000,000) in the event the company "De Schelde" should decide to terminate the lease—to which it had the right for the first time in 1927 and every 10 years thereafter. The company is the only party entitled to cancellation. In a report dated October 24, 1930, Vice Consul Nabel, Rotterdam, stated :

CONSTRUCTION OF LARGE VESSELS HANDICAPPED

The De Schelde Co. started with 20 workmen, and in the course of time brought this number up to 2,500. In addition to much other building and doing a great deal of repair work, it built all the passenger ships of the Rotterdam Lloyd Steamship Co. Inasmuch as there was an increasing general demand for larger tonnage than formerly (16,000 to 20,000 tons instead of 5,000 to 6,000 tons), and the company wanted to be able to compete with other yards at home and abroad, it intimated to the Government in 1913 that it could not continue business as in former years, being handicapped by the location of the yard, which could be reached from the open sea and river only through a narrow channel with locks that did not permit the passage of large vessels.

A harbor commission appointed in 1914 to investigate this and other matters reached the conclusion that it was advisable to afford the De Schelde Co. an outlet to the sea of such dimensions as would enable it to bid for contracts of large vessels, and recommended the construction of a new lock south of the old lock channels.

COMPLETION OF NEW LOCK

Further action was deferred by the World War. A second commission was appointed in 1926, and a new agreement reached between the Government and the De Schelde Co. in September, 1927. As approved by the Parliament November 10, 1927, this provides for (a) the construction of the lock and widening of the channel at an estimated cost of 2,500,000 florins (approximately \$1,000,000), and the maintenance thereof at the expense of the Government; (b) a maximum loan of 3,500,000 florins (\$1,407,000) for a long term (60 years) at the rate of interest prevailing at the time the amount, or part thereof, is taken up. The company no longer has the right to discontinue operation until the expiration of the original lease nor to claim reimbursement from the Government for its entire investment.

Work on the new lock was started in January, 1928, and was finished at the beginning of October, 1930. It is alongside the old but much smaller lock and will apparently be used only in the case of vessels of 10,000 or 12,000 tons or more. The first vessel to pass was the 18,000-ton motor vessel *Dempo*, which the De Schelde Co. built for the Rotterdam Lloyd Steamship Co., and which was completed in November, 1930.

POSTAL CONTRACT SERVICES

The trade centered in Netherland ports is chiefly transit and not based upon domestic production or consumption. National products for overseas destinations could largely be served by the wealth of sailings offered by vessels of other flags—for the Netherland ports, like those of Belgium, are on the world trade routes that have their origin, and terminals, in the United Kingdom and on the North and the Baltic Seas.

However, the Netherlands is a great colonial nation, and the necessity for regular service for mails and commercial communication has long been recognized by the Government as an essential national policy. The granting of subventions for the maintenance of mail services between the mother country and the colonies has therefore a distinct political aspect.

The result has been the establishment of sea services by vessels of Dutch nationality through contracts by which the Government as-

sumes certain responsibilities in consideration of the guaranteed regularity of sailings and the capital required to maintain them. Since the various contracts differ somewhat in principle in respect of Government participation, the subsidized services will be treated by companies and services rather than by type of contract.

The discussion which follows is based upon the 1916 and 1923 editions of Government Aid to Merchant Shipping (Special Agents Series No. 119, Bureau of Foreign and Domestic Commerce, Washington), upon a special review prepared by Acting American Commercial Attaché Howard W. Adams, at The Hague, 1922, and other official documents, including reports by Vice Consul Nabel.

NETHERLANDS-ENGLAND CROSS-CHANNEL SERVICE

ZEELAND CONTRACTS OF 1888-1920

The Zeeland Steamship Co. (Stoomvaart Maatschappij "Zeeland") was founded on June 10, 1875, for the purpose of establishing regular service between Flushing and England, with a special view to transit traffic to and from Germany. The first mail contract was that entered into with this company on June 11, 1888, approved by the law of December 9, 1888, making the contract effective for a 10-year period beginning October, 1888.

The contract provided for the transportation of mails, including parcels, between Flushing and Queensborough. The vessels of the company were to make two round trips daily, for which service they were to receive annually 40,000 florins (\$16,080). In addition the company was guaranteed 260,000 florins (\$104,520) yearly for the carriage of foreign mails, the compensation for the service being computed on the International Postal Union basis of 2 francs (\$0.386 at par of that day) per kilo (2.2046 pounds) of letters and 25 centimes (\$0.048) per kilo of other packets except parcel post. Any amount received in excess of 260,000 florins for the carriage of foreign mails was to be shared by the company with the State.

In 1888 the contract with the Zeeland Steamship Co. was renewed (see Netherlands Official Gazette No. 93 of that year) and continued the former arrangement with slight modifications. The contract was renewed again in 1908, when the annual compensation for the transportation of the Netherland mails was increased to 50,000 florins (\$20,100) and the guaranteed compensation for the foreign mails from 260,000 florins to 400,000 florins (from \$104,520 to \$160,800).

During the war the company suffered severe losses. Three of its finest vessels were destroyed, and the services were reduced and even suspended for a time.

In 1919 a temporary agreement for 15 months was entered into, followed by a contract for an unlimited period, which became effective January 1, 1920, under a law of March 6, 1920. (See Netherlands Official Gazette No. 110 of 1920.) The annual compensation for Netherland mails is 50,000 florins, with a guaranty of 400,000 florins for the foreign mails based upon International Postal Union rates. Any amount received in excess of 400,000 florins is to be shared by the company and the Government. Provision is made for a proportional increase in compensation should annual operating expenses exceed a certain limit.

GOVERNMENT LOAN TO ZEELAND CO.

Need of additional capital following the difficulties encountered during the war caused the company to apply for Government assistance. This was granted in the form of participation to the extent of 1,000,000 florins (\$402,000) in the capital of the company and a loan of 2,400,000 florins (\$964,800) from the public treasury at 6 per cent. This aid was granted by the law of March 5, 1921. (See Staatsblad No. 170.) A Government commissioner was appointed on the board of directors.

According to the British shipping journal, *Fairplay*, for November 20, 1930, the Zeeland Steamship Co. repaid the last installment of 1,440,000 florins, inclusive of interest, to the Netherlands Treasury in 1930, despite the fact that the company could have extended its payments to 1936, when the last installment was due.

The average annual receipts for mail carried during 17 selected years between 1888 and 1921 was \$193,000.

NETHERLANDS-FAR EAST SERVICES

NEDERLAND AND ROTTERDAM LLOYD CONTRACTS

In 1870 the Netherlands took its first step toward providing regular mail and commercial communications by sea with and in its East Indian possessions. On May 13, 1870, the *Nederland Steamship Co.* (*Stoomvaart Maatschappij "Nederland"*) was founded for the purpose of establishing direct steamship services between the Netherlands and the East Indies through the newly opened Suez Canal. The company began operations under the protectorate of King William III and of Prince Henry of the Netherlands as honorary president.

The Rotterdam Lloyd (*Rotterdamsche Lloyd*) was formed in 1883 by the stockholders of several sailing-ship enterprises which had traded between the Netherlands and the Indies under the management of W. Ruys & Sons. This company soon reached a mutually satisfactory agreement with the *Nederland Steamship Co.*, with the result that the two companies finally established alternate sailings to the East Indies.

EARLY CONTRACTS COVERING EAST INDIES SERVICES

Information on the first contract services of these companies is not at hand. A British consular report of February 20, 1889, stated that at that time the *Nederland Steamship Co.* was under a contract of indefinite duration, with the possibility of giving notice from year to year. The subsidy amounted to 156,000 florins (\$62,700), one-half of which was paid by the Netherlands Government and one-half by the Netherlands Indies postal administration. Parcel-post rates were \$0.575 per kilo, progressively reduced for increased weight of packages. For transportation of Government passengers the rates were 750 florins (\$300) first class, 425 florins (\$170) second class, and 250 florins (\$100) third and fourth class. Return cargoes were guaranteed to the amount of 210 "lasts" ("last" may mean either 1 or 2 tons) of coffee or kina bark and 30 "lasts" of tin, at the rate

of 75 florins (\$30) per "last" of coffee, 70 florins (\$28) per "last" of 950 kilos (2,094 pounds) for kina bark, and 30 florins (\$12) for a "last" of 2,000 kilos (4,409 pounds) for tin.

The same report states that the Rotterdam Lloyd also was under a contract, which was to expire in June, 1889. The mail pay to this company was 7.90 florins (\$3.18) per kilo of letters or postal cards and 1.17 florins (\$0.47) per kilo of other postal matter except parcel post.

JOINT AGREEMENT OF 1893

Upon completion of the first contracts an agreement was made with the Nederland Steamship Co. and the Rotterdam Lloyd Co. for a joint service to the Netherland East Indies for a period of 15 years commencing May 1, 1893. Under this agreement the companies were to maintain jointly a mail service every fortnight between Amsterdam/Rotterdam and Batavia and were to be paid for the carriage of mails in accordance with the international scale fixed at Vienna on July 4, 1891, with the guaranty by the Netherland Government of a payment of at least 2,400 florins (\$965) for each outward and homeward voyage. The Nederland Steamship Co. was to operate from Amsterdam via Genoa and the Rotterdam Lloyd from Rotterdam via Marseille. The mails thus had the advantage of expeditious European rail transportation. The Netherlands was not a naval or a shipbuilding power at the time—in fact, the mail steamers were built mainly in England—so that the military considerations involved in the British, French, Spanish, and German colonial mail-subsidy systems were not prominent in the Netherland system.

The contract provided that the running time between Amsterdam and Genoa should be not more than 12 days, while from Genoa to Batavia it should be 29 days during six months of the year and 30 days during the balance of the year. Within five years the running time between Amsterdam and Genoa was to be reduced one day and that between Genoa and Batavia two days, whereupon the guaranteed sum of 2,400 florins per voyage was to be raised to 4,000 florins (\$1,608). (The increased rate commenced in April, 1895.) The Rotterdam Lloyd was to maintain practically the same running time between Rotterdam and Marseille and between Marseille and Batavia as that stipulated in the contract of the Nederland Co. for voyages between Amsterdam and Genoa and Genoa and Batavia.

Payments made to these two lines were met equally by the Netherland Government and the Netherland Indies postal administration. The contract did not call for the conveyance of parcel-post packages, and separate contracts were entered into with the companies for this purpose as well as for the transportation of Government officials and troops and for the carriage of supplies and Government products (coffee, tin, and kina bark) between the Indies and the Netherlands.

CONTRACT OF 1908

Upon expiration of the original contract with the Nederland Steamship Co. and the Rotterdam Lloyd, a new contract was made on March 7, 1908, for a period of 15 years. The new contract was similar in many ways to the old one, but the payments were slightly higher. Some provisions were changed, as, for instance, the run-

ning time between Genoa and Batavia, which was fixed at 25 days during six months of the year and 26 days during the remainder of the year. The payments were increased from 4,000 florins to 5,600 florins and by 1913 had reached a total of nearly 400,000 florins (\$160,800) annually.

During the war this contract was suspended from July 1, 1917, to December 31, 1918, and the two companies were forced to discontinue their passenger services over the contract routes, resulting in a new arrangement with the Netherland Government by which mail and parcel-post packages were carried through the Suez Canal by cargo vessels. This contract, dated March 29, 1916, became effective April 1, 1916.

One of the clauses in the temporary contract provided that as soon as passenger-steamer traffic by way of Suez should be reestablished by the contracting companies the old 1908 contract should again become operative. This took place in 1919.

The status of the Rotterdam Lloyd in 1927 was said by Commercial Attaché J. F. Van Wickel to be that of a free commercial company; that the company had at that time no mail contract; that the increased speed of the Netherlands-East Indies services was the result of commercial demand; that the Government, upon termination of the 1908 contract, did not desire to continue the guaranty; that the company is not displeased with its commercial status; and that mail is carried at Madrid Postal Convention rates less 10 per cent for administration charges.

HOLLAND-EAST ASIA CONTRACT

On March 3, 1922, the Netherland Government entered into a contract with the Holland-East Asia Line for the carriage of parcel-post matter between the Netherlands and Portugal, Italy, China, and Japan. This agreement provided that the company was to be paid for this service to the four countries named at the rate of 10 florins, 15 florins, 53.40 florins, and 57.60 florins, respectively, per cubic meter of ship's space occupied.

COLONIAL SERVICES IN THE EAST

ROYAL PACKET CONTRACT OF 1888

The Royal Packet Navigation Co. (Koninklijke Paketvaart Maatschappij) was formed as a joint venture by the Nederland Steamship Co. and the Rotterdam Lloyd on September 4, 1888, for the purpose of establishing regular liner services in the East Indies with vessels of Dutch nationality. The first agreement with the State was concluded under the law of March 19, 1888 (Staatsblad No. 48), and a contract with the Netherland East Indies Government was concluded in 1891.

The original agreement called for the maintenance of 13 lines in the Netherland East Indies, compensation being on a mileage basis which ranged from 1.50 to 10 florins (\$0.60 to \$4.02) per nautical mile sailed. Under another agreement, ratified by the law of December 31, 1915 (Staatsblad No. 541), and to expire in 1925, 30 lines were to be maintained in consideration of a compensation for

the conveyance of the mails and parcel-post matter to a maximum of 497,310 florins (\$199,918) a year, besides a practical monopoly of Government goods and passenger traffic in the Netherland East Indies. In 1925 a 5-year contract was concluded, which was to expire by limitation December 31, 1930.

RENEWAL OF 1930

On February 18, 1930, the draft of a new contract was submitted to the People's Council of Netherland India. Consul General Coert du Bois, Batavia, under date of February 26, 1930, reported that the new contract was the work of a Government commission appointed some time previously to study into and recommend the terms of future relations between the Government and the interisland transportation company, on the accepted principle that this enterprise must be a monopoly under Government control. The commission rejected the project of a joint corporation with the Government as co-owner and advised continuation of the interisland steamship service by a private corporation under Government supervision to a degree limited and specified in a contract. The commission was instructed to keep in mind two desiderata—that passengers and freight be decently and safely transported at reasonable rates, and that the interests of the public required the exercises of a certain degree of governmental control over a corporation to which was intrusted so vital an economic function as a monopoly of all interisland sea-borne traffic.

Under the 1925-1930 operating agreement the Royal Packet Navigation Co. received annually from the Government the sum of 520,000 florins (\$209,040) "for its contractual obligations." This, the consul general explained, was not supposed to be a straight subsidy but compensation for the losses incurred in maintaining certain routes needed by the Government in the administration of the archipelago which would not ordinarily show a profit. Developments in the outer islands have made certain of these routes pay, and the new contract decreases the Government's "contractual obligation" to 200,000 florins (\$80,400). A total of 125,000 florins (\$50,250) is now paid the company for carrying the mail.

PROVISIONS OF 1930 CONTRACT

Further provisions of the renewed contract were reported by Commercial Attaché Jesse F. Van Wickel, The Hague. Mr. Van Wickel based his report on the text of the law of December 23, 1930, authorizing the contract.

Nationality.—The Royal Packet Navigation Co. and its managing directors must be domiciled in the Netherlands or Netherland Indies during the term of contract.

All managing directors or representatives of the company are subject to the approval of the Minister of Colonies of the home Government or of the Governor General of the Netherland Indies.

Except in special cases, subject to the decision of the Governor General, masters and deck and engineer officers of vessels navigating in the archipelago must be Dutch citizens.

At least two-thirds of the vessels required for the lines covered by the contract must have been built either in the Netherlands or the Netherland Indies, at the option of the company.

Life of contract.—The term of the new contract is 15 years, beginning on a day in the year 1931 determined by the Governor General and terminating on December 31, 1945.

Either party may terminate the contract upon 24 months' notice with the understanding that in any event the contract will remain in force until December 31, 1935, except that the Governor General may terminate it at any time for nonperformance.

Required services.—The company undertakes to operate regular lines between specified points at stated frequency. It undertakes also sufficient free commercial operation to suitably link up the required lines with the commercial necessities of the islands. The company undertakes not to cancel its sailings upon completion of the contract until an agreement has been reached with the Governor General, and must notify him of its intention to abandon any service. Calls at secondary ports on regular lines may be required of the company subject to compensation under proportional per diem charter rates as outlined in the military and emergency requirements below, provided such diversion amounts to more than 25 nautical miles.

The contractor agrees to navigate at least 1,500,000 nautical miles annually in the archipelago, including its required lines, free commercial lines, and lines to Singapore, Penang, and Timor-Dilly.

The Governor General may require additional lines, subject to compensation to be agreed to by the company, and changes in lines or services may be reached by mutual agreement between the Governor General and the contracting company.

Government representation and control.—Besides the contractual powers granted to the Minister of Colonies and the Governor General, these officials appoint a Government commissioner, who may attend all shareholders' or directors' meetings. The commissioner has an advisory vote, besides access to all corporate records and accounts.

The company agrees to furnish freight and passenger tariff information to the Governor General and to make no changes in these rates without first conferring with him. The Governor General will appoint a sea-transportation board comprising a representative of the Governor General, a representative of the directors of the company, and a third member mutually agreeable to these two. In the event the Governor General and the company are unable to agree upon changes in tariffs, the Governor General may refer the question to the sea-transportation board for an opinion. If, after hearing the sea-transportation board, the Governor General requires the disputed tariffs revised, the contracting company may either comply therewith or terminate the agreement with 6 months' notice; in which event the Governor General may still demand continuation of the contract subject to 24 months' notice, except that part which refers to private affairs. Arbitration proceedings will be invited in certain circumstances.

Government preferences and traffic.—Subject to contract exceptions, and in the absence of other agreement, the following considerations govern official traffic:

(a) The Government will employ exclusively vessels owned by the company for transportation of Government passengers, freight, and money between points on the archipelago lines;

(b) The company is obliged to transport all Government traffic between points in the Netherland Indies and between these and Singapore, Penang, and Timor-Dilly;

(c) Government may not transport any commercial or private traffic between above-stated points in Government-owned or Government-chartered vessels.

A reduction of 15 per cent from commercial rates is granted for Government passengers and their subsistence. This rate may not increase to a point higher than the tariffs in force on January 1, 1929, unless the general index of wholesale prices for the Netherland Indies, as published by the Central Bureau of Statistics, rises above 150, when an increase may become effective but not to exceed the proportional increase of the index figure.

For transportation of Government animals, cargo, or money, the Government is to pay private tariffs effective on January 1, 1929, as published in the general cargo tariffs of the Royal Packet Navigation Co., less 28.6 per cent, with the understanding that tariffs will be revised every year if the average freight tariff of the preceding three years proves to have dropped below the level effective on January 1, 1929, and then in proportion to that decline. If freight tariffs rise above the January 1, 1929, level, increase in tariffs will follow only when the wholesale price index for Netherland Indies has reached 150, and then only proportionally to that increase.

Military and emergency requirements.—In case of war or war danger, whether or not the Netherlands is involved in the pending dispute, action as a result of instructions of the League of Nations, military expeditions, disasters, or emergency requirements, the vessels of the company may be taken over by the Government upon prescribed conditions. These are:

The Government is entitled to charter one or more selected vessels in service in the archipelago lines of the company, with or without the personnel, at the following rates per ship, per 24-hour unit per net register ton:

(a) For vessels of 300 tons or less, 2 florins (\$0.80); (b) for vessels in excess of 300 tons, 2 florins (\$0.80) for the first 300 tons and 0.50 florin (\$0.20) for the remaining number of tons; 10 per cent reduction if vessels are chartered without personnel. The price is increased by the cost of fuel consumed during the period the vessels are chartered.

In cases of disasters or special emergencies chartered ships may not be employed in Government traffic for which the lines of the company can serve, without special agreement.

Charter rights remain effective for the period of one year after termination of contract where the Governor General fears a disruption of transportation facilities in the archipelago. The vessels chartered under these conditions must be redelivered to the company not later than one year following the termination of the agreement.

Under military rights the Government also has the right to requisition company vessels and assume ownership at compensation to be determined by experts.

The company must cooperate with the Government in the construction of equipment and fittings to make vessels serviceable for military purposes, such cooperation to be rendered upon the request of the Governor General and at compensation to be determined.

If the personnel on vessels chartered for war or emergency purposes performs services for national defense or for troops in the field or for the League of Nations, and such personnel has not been summoned for military service, the Government will indemnify for disease, injury, death, capture, or missing status.

Compensation and subsidy.—For the transportation of letter mail a remuneration will be paid to the Royal Packet Navigation Co. on the same basis as is generally fixed for this transportation in the Netherland Indies.

For the obligations undertaken by the Royal Packet Navigation Co. resulting from the agreement, disregarding the remunerations and tariffs elsewhere specified, the Government will pay the company an annual amount of 200,000 florins (\$80,400).

Transportation charges due the company for Government traffic must be settled immediately if possible.

Autonomous territories on the basis of the sixth and twelfth chapters of the Indies State Regulations as well as self-governing territories are not included in the agreement but may join it if they so desire.

JAVA-CHINA-JAPAN CONTRACT OF 1902

The Java-to-Australia line was subsidized by a law of September, 1911, authorizing the Governor General of the Netherland East Indies to conclude an agreement which granted the company up to 1920 an annual subsidy not exceeding 150,000 florins (\$60,300) for the maintenance of direct service between Java and Australia with 12 sailings annually.

The Java-China-Japan Line was established on September 15, 1902, under a law of July 7, 1902, and an agreement between the State and the company by which a Government loan was granted. The Java-China-Japan Line is another enterprise in the establishment of which the Netherland Steamship Co. was interested.

The purpose of the line was to provide regular mail services between Java and China and Japan. The contract was for 15 years and the Government loans granted were 300,000 florins (\$120,600) annually for the first five years, 250,000 florins (\$100,500) for the next five years, and 200,000 florins (\$80,400) for the final 5-year period, or \$1,507,500 in all.

GOVERNMENT LOAN TO JAVA LINE

The loan advanced to the Java-China-Japan Line is the first instance of Government advances of capital to Netherland steam shipping.

Article 1, section 5, of the law of July 7, 1902, provided that the stockholders should first receive out of the net earnings a dividend

equal to 5 per cent on the paid-up capital stock. From net earnings of more than 5 but less than 9 per cent the State would receive two-fifths, and from net earnings in excess of 9 per cent the State would receive three-fourths. If in any year the profits paid to stockholders were less than 5 per cent, the deficiency should be made up out of extra profits in the following years, before the State could participate. In the event of liquidation, the unpaid balance of the advance would be paid to the State out of the assets of the company after the settlement of all debts and the repayment at par of all capital stock.

The subsidies or advances were to be made in equal shares by the Netherlands and the Government of the Netherland East Indies.

The service required under this law was a voyage every four weeks between the ports of Surabaya, Samarang, Batavia, Hong Kong, Shanghai, Yokohama, Kobe, and Amoy, with calls on both the outward and the homeward voyages at the first four ports.

The following additional conditions were imposed:

- (a) *All mail*, including parcel-post packages, to be carried free.
- (b) *Speed*.—Not specified.
- (c) *Admiralty requirements*.—The Governor General of the Netherland East Indies to have the right to hire one or more ships at a price not to exceed 0.75 florin (\$0.302) per net register ton per day on the first 600 tons and 0.50 florin (\$0.201) per net ton per day on each remaining ton. The Governor General to have the right to purchase at any time one or more of the ships of the company.
- (d) *Control by Government*.—Appointment of directors and representatives and adoption of statutes and by-laws to be subject to the approval of the Netherland Government, which was also to have the right to be represented at all meetings of the company and the power to examine all its books and papers.
- (e) *Nationality of officers and crew*.—The commanders, mates, and engineers must be Netherlanders, or must belong to the native population of the Netherland East Indies, except in special cases, at the discretion of the Governor General. (No requirements as to nationality of crew were included.)

The Java-China-Japan Line repaid the advances in installments beginning in 1913 and ending in 1919, when the contract with the Government automatically terminated.

NETHERLANDS-WEST INDIES SERVICES

ROYAL WEST INDIAN MAIL CONTRACTS OF 1894-1930

The Royal West Indian Mail Service (Koninklijke West-Indische Maaldienst) was established on August 15, 1882, to provide regular communication by vessels of Dutch nationality with the Netherland West Indies. For 45 years this company has maintained connections between the Netherlands and Surinam (Netherland Guiana) and Curacao, partly by direct services from Amsterdam and partly by a line from New York.

The first contract was for 10 years, ending in 1894, with a sailing every month for a payment of 36,000 florins (\$14,472) annually on

the line from Amsterdam. From New York about 30 sailings were to be made, and toward this the colony of Curacao paid only 1,200 florins annually for the transport of mails.

On August 25, 1895, a 5-year contract, commencing April 1, 1896, became effective and provided for a voyage from Amsterdam to Curaçao every three weeks.

The company was to receive for the carriage of both letter mail and parcel-post matter for each outbound and homeward voyage 1,400 florins (\$560). It was provided, however, that if the space occupied by the parcel-post packages should be more than 2 cubic meters (about 70 cubic feet) payments should be made at the rate of 40 florins (\$16.08) per cubic meter of additional space so occupied. A limit of 47,600 florins (\$19,135) was placed on the sum that could be earned in any one year.

Upon expiration of this contract in April, 1901, the contract was prolonged to January 1, 1920, on which date it was superseded by a new contract that grants the company compensation for the carriage of letters pursuant to the terms of the Netherlands' postal law and the International Postal Union convention. Carriage of parcel-post packages to the Netherland West Indies, Central America, Ecuador, Colombia, Peru, Venezuela, and Chile is at the rate of 40, 32, 32, 28, 37, 40, and 41 florins, respectively, for the several countries, per cubic meter of ship's space occupied.

NETHERLANDS-ARGENTINA-BRAZIL SERVICE

ROYAL DUTCH LLOYD CONTRACTS

The company that is now the Royal Dutch Lloyd (Koninklijke Hollandsche Lloyd) was originally a line established to South America in 1900, which led an unsuccessful existence until reorganized by a strong financial group under its present name in 1908. Pursuant to a law of November 29, 1907, this company was to receive an annual advance from the Government for a period of 15 years. Services with both cargo and passenger lines to South America were opened. Passenger vessels were luxurious in appointment, emigrant hotels were built in Amsterdam, and the company expanded enormously.

CONTRACTS OF 1907-1923

Under the provisions of the law of November 29, 1907, mails and parcel-post matter were to be carried free. Subsequently it was agreed that the amounts the Netherlands postal administration received from the postal administrations of other countries for transportation of mails on the vessels of the Royal Dutch Lloyd should be divided, half to be paid to the steamship company, and half retained by the Government and credited to the company by way of repayment of the subsidy received. The advances were entirely repaid on January 25, 1920, whereupon the agreement automatically terminated.

Following the termination of the original agreement, a new contract was concluded, by which the company was to receive mail payment at International Postal Union rates. Parcel-post matter to Spain, the Canary Islands, and South America was to be carried at the rate of 10, 20, and 50 florins, respectively, per cubic meter (35.31 cubic feet) of ship's space occupied.

In 1921 the company faced financial difficulties and sold four of its best vessels. In 1923 it again became financially involved, and was reorganized with the assistance of the Government and the municipality of Amsterdam, which together guaranteed cash advances to a maximum of 7,000,000 florins (\$2,814,000) at 6 per cent interest. The contract covering this was signed December 10, 1923.

CONTRACT OF 1929

During 1929 the company again came up for official consideration and a further advance of 3,000,000 florins was authorized, one-fourth of which was to be advanced by the municipality of Amsterdam. This advance was to draw 5 per cent interest. The agreement was signed February 5, 1929. An abstract of the principal provisions of this contract follows.

ARTS. 1 and 2. Company to maintain 42 sailings annually between the Netherlands and South America with suitable vessel equipment, subject to the regulation of the Minister of Labor, Trade, and Industry.

ART. 3. Vessel equipment to consist of present vessels and replacements built in the Netherlands unless the minister grants exemption based upon delay in delivery or excess cost.

ART. 4. Publicity in connection with sailings.

ART. 5. Officers to be Netherland citizens unless the minister shall determine otherwise.

ART. 6. Regulations as to transportation of passengers and cargo and tariffs.

ART. 7. Service-requirement exemptions in the event of war or for other important reasons.

ARTS. 8, 9, 10 and 11. Government financial and loan provisions. State to advance, as loan, three-fourths and the municipality of Amsterdam one-fourth of the amounts by which operating expenses exceed operating receipts during the period from October 1, 1928, to January 1, 1931.

Operating expenses shall not include depreciation on company property nor interest due the Government or the municipality of Amsterdam. Interest due creditors shall be included. The balances of voyage accounts on voyages begun but not finished on October 1, 1928, and all voyage accounts between that date and January 1, 1931, were to be included in the operating account.

Between October 1, 1928, and January 1, 1929, the State was not to advance more than 250,000 florins and from January 1, 1929, to January 1, 1931, not more than 1,000,000 florins per year. When a favorable balance of 800,000 florins has been established, the surplus is to be employed according to the directions of the minister to redeem the advance granted.

The minister may exercise discretion in respect of proper charges, and he may cancel the agreement by 90 days' notice on January 30, 1930, and demand payment of the money advanced under the agreement if the company in his opinion does not take adequate measures to insure proper management and operation. Interest rate to be 5 per cent.

Advances may be made following the completion of each voyage account which shall have been approved by the minister. Voyage

accounts shall be prepared in accordance with the regulations specified by the minister.

So long as there are amounts due the Government under the advances authorized by the agreements as of December 10, 1923, and February 5, 1929, the company will be liable to have its unmortgaged property sold to satisfy the claims of the Government upon demand.

ART. 12. Penalty clauses: 100,000 florins for each violation of the requirement to build vessels in the Netherlands. For each voyage not completed in accordance with the required annual number, 50,000 florins; for omitting to call at a required port, 10,000 florins; 250 florins per day for delay in advertised sailings; for each voyage completed by steamers not approved or classified to the satisfaction of the minister, 5,000 florins; numerous smaller penalties. Penalties are due both Government and Amsterdam in the proportion of 3 to 1.

ART. 13. Management to retain nationality and Government commissioner to be appointed to look after Government's interests.

ART. 14. Government provisions for seizure of property in case services are not maintained.

ART. 15. Required annual sailings to be one-third in operation by October 1, 1928.

ART. 16. Agreement to terminate upon fulfillment of financial obligations of the company.

ART. 17. Covers agreement with municipality of Amsterdam in respect of loans and reimbursement.

ART. 18. Administrative expenses in connection with contract are for account of the company.

ROYAL DUTCH-NORTH GERMAN LLOYD POOL

The Royal Dutch Lloyd has entered a pooling agreement with the North German Lloyd from which important financial advantages are expected. In order that the effectiveness of this agreement may be realized the Government again has extended its guaranty loan period for two years, to December 31, 1932, on condition that the municipality of Amsterdam provide a credit of one-third of a total loan of 2,000,000 florins (\$804,000) at 5 per cent interest during the period of extension.

Under the terms of the working agreement, Consul General Charles L. Hoover, Amsterdam, reports, the Royal Dutch Lloyd and the North German Lloyd will jointly operate the following services:

1. Direct express cargo service between Amsterdam, Montevideo, and Buenos Aires, without calls at intermediate ports.
2. A special service to the south Brazilian ports of Porto Alegre, Paranagua, San Francisco do Sul, Florianopolis, and Rio Grande.
3. Direct express cargo service between Amsterdam and Rio de Janeiro and Santos.
4. Special service to Cabedello, Pernambuco, Bahia, and, eventually, Victoria. This service will also serve Rio de Janeiro and Santos.

NETHERLANDS-UNITED STATES SERVICE

HOLLAND AMERICA CONTRACTS OF 1909-1922

On February 27, 1909, the Holland America Line entered into a contract with the Netherland Government for the carriage of letter mail, compensation to be made at International Postal Union rates. The original contract was superseded by a new one effective January 1, 1922, also on the basis of Postal Union rates. From May 17, 1910, the company had been paid 25 florins (\$10) per cubic meter of ship's space occupied for carrying parcel post. On May 17, 1920, the parcel-post rate was changed to 0.25 florin (\$0.10) per kilo (2.2046 pounds).

Most of the Netherland mails for the United States have been expedited by North Sea service to England and thence to America. Before the war the average annual letter-mail pay to the Holland America Line to New York was less than 500 florins (\$200). With the outbreak of war and the censorship of mails through Great Britain, the payment to the Holland America Line rose to 180,000 florins (\$72,360) in 1914 and to 370,000 florins (\$148,740) in 1915; but it dropped rapidly in the years of submarine warfare, and in 1918 was only 75 florins (\$30). The parcel-post payments before the war averaged 2,000 florins (\$804) a year, rose to 145,000 florins (\$58,290) in 1915, and dropped to 24 florins (about \$10) in 1917. In 1919 the total payments were 16,000 florins (\$6,432).

Considerable United States capital is employed by the Holland America Line. In April, 1922, a 25-year, 6 per cent bond issue was offered through New York underwriters in the amount of 20,000,000 florins (\$8,040,000), being part of an authorized 30,000,000 florin (\$12,060,000) issue. The remainder of 10,000,000 florins was offered in the Netherlands at the same time. The purpose of the loan was to raise funds with which to build three passenger vessels of an aggregate of 42,400 gross tons and nine cargo vessels of an aggregate of 98,200 gross tons. The issue is tax free in the Netherlands, and the company pays no normal income tax in the United States.⁴

NETHERLANDS-SOUTH AFRICA SERVICE

HOLLAND SOUTH AFRICA CONTRACT OF 1921

On July 20, 1921, a contract was concluded with the Holland South Africa Line for an increased passenger and mail service with Cape Town and Durban. This was ratified by the law of July 30, 1921. (Staatsblad No. 1018.) The Cape Colony was a Netherland colony 120 years ago, and the Dutch element still is a large part of the European population of South Africa.

The essential features of the contract, as stated by H. W. Adams, acting commercial attaché at The Hague, in a report dated January 15, 1923, are:

The contract covers a period of five years and provides for the operation of a service under the Netherland flag between the Netherlands and South Africa and for the transportation of mails, including parcels, to and from

⁴ Moody's Manual of Investments; Industrials, 1931, p. 2513.

the various ports of call. The company is to make 12 voyages annually, at intervals of about one month, with steamships which, in addition to being adapted to freight traffic, are equipped for transporting a limited number of passengers. The company is gradually to increase both the number of voyages and the facilities for the conveyance of passengers, to the end that within five years after the beginning of the first voyages under this contract a yearly total of 24 voyages at intervals of about 15 days will have been attained. The semimonthly voyages are to be made with steamships equipped for the conveyance of both cabin and steerage passengers, in the services from Amsterdam or Rotterdam via Cape Town to Durban and from Durban via Cape Town to Amsterdam or Rotterdam. The company is permitted to establish additional ports of call besides those specified in the contract and to undertake more than the prescribed number of voyages.

This contract further provides that the company is to receive from the Government a yearly advance of 1,000,000 florins (\$402,000) for a period of five years. If the profit available for distribution exceeds 6 per cent of the paid-up capital stock outstanding, such surplus is, first of all, to be used in paying to the Government interest at the rate of 5 per cent on the unredeemed balance of advances received up to December 31 of the preceding year. Half of the remaining surplus profit is to be retained by the company, and half is to be paid to the State by way of redemption of the advances received. The following additional provisions were embodied in this contract:

1. *Nationality of officers.*—The commanders, mates, and engineers must be Netherlanders, unless this requirement be waived by the Minister for Agriculture, Industry, and Trade.

2. *Nationality of managers.*—All the managers must be Netherlanders, unless this requirement be waived.

3. *Appointments of managers.*—Appointments of managers are to be subject to the approval of the Minister for Agriculture, Industry, and Trade.

4. *Government control.*—The Queen has the right to appoint a Government representative in the company, who may attend all meetings of shareholders or directors or of other such officials, and he shall have access to the offices and files and shall be allowed to inspect all the books and documents of the company. The articles of association and modifications thereof, together with the terms and conditions on which debenture loans are to be made, are subject to the approval of the Minister for Agriculture, Industry, and Trade.

5. *Liquidation.* The company shall not be liquidated without the consent of the Minister for Agriculture, Industry, and Trade, who, however, may withhold this consent only on the ground that such liquidation is not warranted by the financial condition of the company.

TOTAL GOVERNMENT SUBSIDIES AND ADVANCES

According to the Statistical Yearbook of the Netherlands for 1929 (Jaarcijfers voor Nederland), showing expenses of the State in connection with all departments of navigation, the Government of the Netherlands has expended in subsidies and advances to navigation companies and for navigation generally the following annual amounts:

TABLE 78.—SUBSIDIES AND ADVANCES BY NETHERLAND GOVERNMENT TO STEAMSHIP COMPANIES AND TO NAVIGATION GENERALLY, 1900-1928

Year	Steamship companies, subsidies, advances, etc.		Subsidies and other expenses	
	Florins	Equivalent in United States currency ¹	Florins	Equivalent in United States currency ¹
1900.....			34,000	\$13,668
1901.....			30,000	12,060
1902.....			72,000	28,944
1903.....	50,000	\$20,100	74,000	29,748
1904.....	198,000	79,596	28,000	11,256
1905.....	198,000	79,596	23,000	9,246
1906.....	197,000	79,194	31,000	12,462
1907.....	187,000	75,174	40,000	16,080
1908.....	389,000	156,378	38,000	15,276
1909.....	426,000	171,252	33,000	13,266
1910.....	426,000	171,252	24,000	9,648
1911.....	426,000	171,252	25,000	10,050
1912.....	426,000	171,252	30,000	12,060
1913.....	345,000	138,690	36,000	14,472
1914.....	302,000	122,672	44,000	17,873
1915.....	302,000	121,857	43,000	17,351
1916.....	302,000	120,085	44,000	18,370
1917.....	302,000	120,447	79,000	31,077
1918.....	202,000	84,536	67,000	26,356
1919.....	102,000	40,198	148,000	58,327
1920.....	51,000	17,554	183,000	62,989
1921.....	² 1,001,000	336,837	³ 409,000	137,629
1922.....	² 1,003,000	386,155	³ 319,000	122,815
1923.....	² 1,016,000	397,256	180,000	70,380
1924.....	² 1,008,000	385,157	167,000	63,811
1925.....	² 1,003,000	402,805	147,000	59,035
1926.....	3,000	1,203	153,000	61,353
1927.....	3,000	1,203	147,000	58,962
1928.....	3,000	1,207	193,000	77,625

¹ Converted at the par rate of \$0.402 for 1900-1913; \$0.4062 for 1914; \$0.4035 for 1915; \$0.4175 for 1916; \$0.4187 for 1917; \$0.468 for 1918; \$0.3941 for 1919; \$0.3442 for 1920; \$0.3365 for 1921; \$0.385 for 1922; \$0.391 for 1923; \$0.3821 for 1924; \$0.4016 for 1925; \$0.401 for 1926; \$0.4011 for 1927; and \$0.4022 for 1928.

² Includes an advance of 1,000,000 florins to the Holland South Africa Line.

³ Includes expenses of regulation and inspection of interior navigation.

PREFERENCES AND RESTRICTIONS

RESERVATION OF THE COASTING TRADE

Until comparatively recent years vessels of Dutch nationality enjoyed special advantages in the trade between the Netherlands and its colonies in the East Indies by which lower tariff duties were imposed on imports carried in Dutch vessels. This differential was reduced in 1865 and entirely abolished in 1872. Since 1912 the coastal trade within the archipelago also is open to vessels of all nationalities under certain restrictions.

EXEMPTION FROM FISCAL CHARGES

IMPORT DUTIES

Imported ships and barges are duty free in the Netherlands. Parts and accessories for ships and barges not suitable for any other purpose and not specified by name in the tariff as being dutiable, are duty free. Among such parts are propellers, portholes, row-

locks, lifebuoys, fenders, ship's telegraphs, power winches, and sails, if of duty-free materials. Boilers, engines, motors, cable and rope, unworked steel and iron plates and profiles, and unworked or sawn and planed timbers are also duty free. Other materials and accessories for ships are either duty free or dutiable at 5 per cent or 8 per cent ad valorem, and all imports are subject to a statistical tax of one-tenth of 1 per cent.

Exemption from import duty and statistical tax may be granted for materials and articles for the construction of vessels for export, if the purpose and identity of the materials and articles can be established. The period fixed for reexportation is 12 months, but it may be extended, where circumstances warrant.

NORWAY

ECONOMIC DEVELOPMENT AND SHIPPING

Norway is a long, straggling country with a straight-line coast length of about 2,000 miles which indentations cause to measure actually some 12,000 miles. The great expanse of sea to the north, west, and south, the countless harbors, inlets, and fjords sheltered by islets, and the rich supply of marine life for the fisheries form the center of the principal economic interest of the Norwegians. Notwithstanding about one-third of its area lies within the Arctic Circle, Norway possesses a very important advantage over other northern countries in that, due to the tempering influence of the Gulf Stream, practically all its harbors are ice free during the winter months.

From the beginnings of their history the Norwegian people have followed the sea, and the economic structure of Norway revolves about the sea industries. Commercial shipping provides opportunities for employment and investment to the Norwegian population to such a degree that it is inextricably interwoven in the progress of the nation.

AREA AND OCCUPATIONS

While the area of Norway is greater than that of either Italy or the British Isles, the population is small. Mountain lands comprise 60 per cent, forests 23 per cent, and cultivable lands about 6 per cent of the total area. The mountain lands are the source of a considerable mineral supply and water power; the forests are the basis of timber, lumber, and wood-pulp industries. At the beginning of the nineteenth century 80 per cent of the whole population was classed as agricultural; at present approximately 30 per cent of the total population of about 2,700,000 is engaged in the manufacturing trades. Two-thirds of the population live near the coast.

From 1920 to 1929 Norwegian shipping employed an average of 25,600 persons on board ships engaged in the foreign trade.¹ The total employment in shipping was stated in the official statistics for 1928 as 33,025; in whaling, 1,155. Thus, there is employment on board Norwegian vessels in the foreign trade for approximately 1.9 per cent of the total male population of 1,290,500 (census of 1920) and on all Norwegian shipping for approximately 2.5 per cent of the total male population. These figures do not include allied industries or shore staffs.

The Norway Yearbook for 1924 states: "At the present time about 30,000 seamen of subordinate grades and about 15,000 officers are

¹ Norway's Official Statistics, VIII, 148, Shipping, 1929, p. 53.

employed on Norwegian ships. It is estimated that of the entire adult male population of Norway (approximately 660,000) about 17 per cent (112,000) take to the sea for their livelihood." This, of course, would include the fisheries and allied industries.

WAGES ON NORWEGIAN VESSELS

The Norwegian Shipowners' report of September, 1929, presents a relative percentage scale of wages for selected ratings as compared with north European countries for the year 1928. From this it appears that wages for a quartermaster, first class, on a Norwegian vessel, taken as 100, will compare with 111 for Denmark, 86 for Sweden, 94 for the Netherlands, 85 for Great Britain, and 71 for Germany.

The Norwegian first-class machinist taken as 100 compares with 121 for Denmark, 93 for Sweden, 106 for the Netherlands, 93 for Great Britain, and 82 for Germany.

The Norwegian seaman taken as 100 compares with 106 for Denmark, 93 for Sweden, 99 for Great Britain, 100 for the Netherlands, and 69 for Germany.

The Norwegian steward taken as 100 compares with 93 for Denmark, 78 for Sweden, 88 for Great Britain, and 37 for Germany.

CAPITAL INVESTMENT IN SHIPPING INDUSTRY

No nation has so large a proportion of shipping tonnage to population as Norway; on July 1, 1929, the Norwegian Shipowners' Association placed the Norwegian-owned tonnage at 1,150 gross tons per 1,000 inhabitants, of which 800 gross tons represented steam vessels and 350 tons internal-combustion power vessels. Norway's 800 tons of steamer tonnage per 1,000 inhabitants compares with Great Britain's 375 tons; and its 350 tons of motor tonnage per 1,000 inhabitants compares with Denmark's 100 tons.

A very large part of Norwegian shipping is financed through single-ship companies by and in the various communities. Available information indicates that only one bank is especially designed for the handling of shipping securities.

In 1914 the investment in shares of Norwegian shipping companies was 278,000,000 kroner (\$74,000,000),² while investment in other industrial undertakings was 390,000,000 kroner (\$104,000,000) and in banking activities 73,000,000 kroner (\$19,400,000). In 1920 shipping-share investment reached 1,159,000,000 kroner (\$191,600,000 at \$0.1653 to the krone), while other industrial-share investment was 1,535,000,000 kroner (\$253,700,000) and banking investment 552,000,000 kroner (\$91,200,000).² Following the high-freight period, investment receded, until in 1924 it was 877,346,000 kroner (\$122,300,000).

The above figures include the whaling industry. Due to the increasing flow of capital into and the growth of the whaling industry,

² Throughout this section, in converting kroner to United States currency the par rate of \$0.268 has been used to 1913, yearly averages as given in Mood's Handbook of Foreign Currency and Exchange for 1914-1929, and par for 1930.

² The Norway Yearbook, 1924, p. 368.

statistics for that industry are separately stated in the official reports beginning with 1925, when shipping investments stood at 762,206,000 kroner (\$136,300,000 at \$0.1788 to the krone) and whaling at 86,190,000 kroner (\$15,400,000); in 1926 shipping investments were 728,663,000 kroner (\$162,700,000 at exchange of \$0.2233) and whaling 92,433,000 kroner (\$20,600,000).

THE NORWEGIAN COMMERCIAL FLEET GROWTH OF THE MERCHANT MARINE

The Norwegian commercial fleet of vessels of 100 tons or more, amounting in 1913 to 2,458,000 gross tons and in 1920 to 2,219,000 gross tons, stood at 3,224,000 gross tons in 1929, at 3,668,000 gross tons in 1930, and at 4,066,000 gross tons on July 1, 1931—a fleet exceeded only by the fleets of Great Britain, the United States, Japan, and Germany.

Norwegian official statistics, which include steamers and motor ships of 25 gross tons and over and sailing vessels of 50 gross tons and over, give the total fleet as 3,884,000 gross tons for 1930, nearly 500,000 tons more than in the preceding year. The development and general trend in types of vessels making up this tonnage are shown in Table 79.

TABLE 79.—GROWTH OF THE NORWEGIAN COMMERCIAL FLEET

Year ¹	Total fleet		Net change, increase (+) or decrease (-)			
	Lloyd's Register ²	Norwegian official statistics ³	Total	Steamers	Motor ships	Sailing vessels
	Gross tons	Gross tons	Gross tons	Gross tons	Gross tons	Gross tons
1913.....	2,458,000	2,458,000	+97,000	+124,000	+3,000	-30,000
1914.....	2,505,000	2,648,000	+62,000	+105,000	+5,000	-48,000
1915.....	2,529,000	2,662,000	+14,000	+60,000	+13,000	-69,000
1916.....	2,771,000	2,629,000	-33,000	+25,000	+26,000	-84,000
1917.....	(⁴)	2,059,000	-570,000	-456,000	+31,000	-145,000
1918.....	(⁴)	1,892,000	-167,000	-153,000	+28,000	-42,000
1919.....	1,858,000	2,057,000	+165,000	+139,000	+53,000	-27,000
1920.....	2,219,000	2,429,000	+372,000	+367,000	+35,000	-30,000
1921.....	2,684,000	2,629,000	+200,000	+198,000	+22,000	-20,000
1922.....	2,601,000	2,609,000	-20,000	-26,000	+21,000	-15,000
1923.....	2,562,000	2,572,000	-37,000	-	+18,000	-55,000
1924.....	2,505,000	2,599,000	+27,000	+50,000	+41,000	-64,000
1925.....	2,681,000	2,784,000	+185,000	+99,000	+150,000	-24,000
1926.....	2,842,000	2,852,000	+68,000	-44,000	+123,000	-11,000
1927.....	2,824,000	2,944,000	+92,000	-10,000	+110,000	-8,000
1928.....	2,938,000	3,117,000	+179,000	-4,000	+188,000	-11,000
1929.....	3,224,000	3,392,000	+276,000	+111,000	+265,000	-
1930.....	3,668,000	3,884,000	+492,000	+62,000	+430,000	-
1931.....	4,066,000	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)

¹ Figures are as of July 1 for Lloyd's and Dec. 31 for Norwegian official statistics.

² Includes vessels of 100 gross tons and upwards.

³ Includes steamers and motor ships of 25 gross tons and over and sailing vessels of 50 gross tons and over.

⁴ Data not available.

According to Lloyd's Register, Norwegian tanker tonnage on July 1, 1930, ranked third and motor-vessel tonnage second in world scale. The Norwegian commercial fleet, as a whole, however, ranked first in proportion of new tonnage, with 30.2 per cent under 5 years old, which compared with 19.7 per cent for Great Britain and Ire-

land, 4.1 per cent for the United States, and 11.1 for Japan. On July 1, 1931, Norway's relative rank remained unchanged, the country still being third in tanker tonnage, second in motor-vessel tonnage, and first in proportion of new ships; but vessels under 5 years old constituted 33.8 per cent of Norway's commercial fleet on July 1, 1931, contrasted with 22.4 per cent for the United Kingdom, 12.9 per cent for Japan, and 5.4 per cent for the United States. A reason for the high percentage of new tonnage in the Norwegian fleet may be found in the high proportion of tonnage lost during the war. Thus, during the period 1914-1918 49.6 per cent of the Norwegian fleet was lost, which compares with 46.9 per cent for Italy, 39.7 per cent for France, and 37.6 per cent for the British fleet.

Commercial Attaché Marquard Lund, Oslo, reported on February 14, 1930, that the tanker tonnage under contract for construction for Norwegian account had then reached 760,000 dead-weight tons, for delivery in 1930, 1931, and 1932; that the 11,000 to 14,000 ton tankers were contracted for on the basis of 10-year time charters with American and English oil companies; that the 8,000 to 10,000 ton tankers were for open-market chartering on 2, 3, and 5 year charters, and that at current rates the vessels were expected to yield net earnings of 10 to 15 per cent.

OWNERSHIP OF THE FLEET

In a report dated October 12, 1925, the then acting commercial attaché at Copenhagen stated that 2,607,000 gross tons of Norwegian shipping were owned by 3,737 owners. The various types of ownership groups are shown in Table 80.

TABLE 80.—FORM OF OWNERSHIP OF NORWEGIAN MERCHANT MARINE, 1923

Owner	Total fleet †		Steam vessels		Motor vessels		Sailing vessels	
	Number of owners	Gross tons owned	Number of owners	Gross tons owned	Number of owners	Gross tons owned	Number of owners	Gross tons owned
Individuals.....	1,007	95,617	161	36,263	693	36,293	153	23,061
Partnerships.....	509	66,770	91	35,280	341	18,674	77	12,816
Associations.....	21	18,183	21	18,183				
Share companies.....	1,586	2,275,313	1,246	1,958,096	228	173,740	112	143,477
Whaling companies.....	70	79,165	68	75,425	1	1,589	1	2,151
Fishing companies.....	78	8,219	47	6,324	26	1,569	5	3,236
Industrial and commercial companies.....	194	22,251	103	15,328	88	5,996	3	927
Tugboat companies.....	58	8,706	49	8,118	9	588		
Liquidated companies.....	4	3,853	4	3,853				
Banks.....	82	12,732	33	7,190	42	3,867	7	1,675
State.....	43	5,050	25	4,027	18	1,023		
Communes.....	38	2,861	26	2,156	10	410	2	295
Counties.....	47	8,953	31	8,146	16	807		
Total.....	3,737	2,607,673	1,905	2,178,389	1,472	344,556	360	184,728

† Norwegian statistics.

The plan of community ownership in shipping ventures is typically Norwegian, and calls for subscriptions to shares in new ventures are frequently to be seen in Norwegian trade journals. A single-ship venture thus enlists local capital, provides employment,

and generally develops community interest in the individual vessel. Table 80 shows 1,586 incorporated companies owning 2,275,313 gross tons of shipping, or an average of only 1,430 gross tons per company.

(For a discussion of Government ownership in Norway see pp. 385.)

EMPLOYMENT OF THE FLEET

The employment distribution of the Norwegian commercial fleet is indicative of the relationship between direct services based upon Norway and indirect services based upon foreign ports. Table 81 presents the principal distribution of the Norwegian commercial fleet.

TABLE 81.—EMPLOYMENT OF NORWEGIAN COMMERCIAL FLEET, 1913 AND 1929

Service	1913				1929			
	February		August		February		August	
	Number of vessels	Gross tons	Number of vessels	Gross tons	Number of vessels	Gross tons	Number of vessels	Gross tons
North Sea: All tramp and liner services between Norway, North Sea ports, Iceland, etc.....	299	237, 776	312	201, 247	229	249, 609	179	208, 514
Baltic Sea: Services between the Baltic and Norway, England, and the Continent.....	59	67, 687	323	365, 918	33	42, 826	120	172, 531
White Sea: Services between White Sea ports and Norway, England, and the Continent.....			88	137, 170			111	207, 952
Iron and ore services:								
North Norway, United Kingdom/Continent.....	17	58, 608	13	46, 704	15	54, 298	14	49, 724
North Swedish, United Kingdom/Continent.....			8	24, 840			3	10, 406
Urbana Range, United Kingdom/Continent.....			3	13, 252			4	25, 189
Canada and Europe.....	1	4, 339	28	45, 358	13	46, 662	22	67, 286
Atlantic coast of United States, Gulf and Europe.....	79	158, 667	84	147, 249	85	411, 938	66	317, 715
East coast of South America and Europe.....	97	138, 761	69	97, 179	34	131, 166	19	76, 183
West Indies: To Canada, Atlantic coast of United States, and Gulf.....	132	225, 917	162	305, 820	121	280, 635	125	280, 018
North and South America: Between east coasts of North and South America, and from west coasts, or vice versa.....	118	158, 597	121	172, 687	32	161, 382	37	197, 875
Between west coasts of North and South America.....	7	29, 628	4	15, 405	7	35, 679	10	46, 127
Between west coasts of North and South America and Europe.....	62	115, 391	43	82, 734	26	151, 200	27	154, 837
East coast of North and South America to Australia, China, Japan, and East Indies.....			1	3, 826	4	19, 073	16	93, 894
Between west coast of North and South America and Australia, China, Japan, and East Indies.....	49	98, 634	29	74, 404	24	138, 502	21	116, 681
Between Australia and Europe.....	58	77, 298	59	121, 998	15	85, 062	14	81, 146
Between South Africa and Europe.....	17	35, 096	19	40, 217	3	15, 351	4	17, 548
East Asiatic waters.....	34	58, 429	40	74, 589	86	215, 769	82	206, 759
Between Europe and Far East.....	5	16, 857	1	1, 411	20	107, 884	22	115, 036
Between Black Sea and United Kingdom/Continent.....	14	45, 782	10	34, 826	12	63, 304	16	81, 621
Mediterranean, United Kingdom/Continent and Scandinavia.....	136	221, 660	58	91, 982	102	169, 937	36	71, 678
United Kingdom/Continent and West Africa and African Islands.....	37	57, 346	16	23, 440	44	98, 099	15	47, 369
Services between United Kingdom/continental ports from the Elbe to Gibraltar.....	178	200, 029	56	59, 692	49	56, 961	27	25, 927

Source: Norwegian Shipowners' Association: Statistical Data, September, 1929.

TIME-CHARTER EMPLOYMENT

A large part of the Norwegian fleet finds employment on a time-charter basis, but official statistics on earnings indicate a relative decline in this field. (See also Table 83.) In 1913 Norwegian vessels

earned a gross freight of 218,619,000 kroner (\$58,590,000), of which 92,957,000 kroner, or 42.5 per cent, was earned on time charters; of the gross earnings of 432,061,000 kroner (\$115,270,000) in 1929, 136,084,000 kroner, or 31.5 per cent, was so earned.⁴

In 1913 the Swedish commercial fleet earned approximately 10 per cent of its gross foreign freight revenue on foreign time charters; in 1927, 4 per cent; in 1928, 5.6 per cent; and in 1929, 5.2 per cent.⁵

The Danish commercial fleet in 1913 earned 7.85 per cent of its gross foreign freight revenues on time charters; in 1927, 11 per cent; in 1928, 16.8 per cent; and in 1929, 17 per cent.⁶

LINER EMPLOYMENT

Employment of Norwegian tonnage in liner services under four general classifications is presented in Table 82.

TABLE 82.—DEVELOPMENT OF LINER SERVICES OF NORWEGIAN COMMERCIAL FLEET, 1913-1929

Year	Between Norway and foreign ports		Norwegian coastal service		Between foreign ports			
	Gross tons	Per cent ¹	Gross tons	Per cent ²	For Norwegian account		For foreign account ¹	
					Gross tons	Per cent ²	Gross tons	Per cent ²
1913.....	170,582	9.7	70,852	4.0	4,588	0.3	93,979	5.3
1914.....	197,010	10.4	72,044	3.8	3,190	.2	93,691	4.9
1915.....	207,468	10.5	75,699	3.8	6,487	.3	92,050	4.7
1916.....	223,634	10.8	78,656	3.9	7,961	.4	80,546	3.9
1917.....	224,780	10.5	79,362	3.7	34,466	1.6	63,882	3.0
1918.....	177,322	10.3	83,493	4.9	28,726	1.7	56,584	3.3
1919.....	185,057	11.9	79,315	5.1	67,002	4.3	47,485	3.0
1920.....	187,132	11.2	77,464	4.7	68,122	4.1	46,986	2.8
1921.....	232,963	11.0	76,749	3.6	116,963	5.5	47,228	2.2
1922.....	298,935	12.9	70,643	3.0	130,000	5.6	43,413	1.9
1923.....	356,162	14.0	79,878	3.1	146,693	5.8	39,749	1.6
1924.....	371,874	14.8	79,250	3.1	135,961	5.4	36,607	1.5
1925.....	422,769	17.2	82,551	3.4	173,815	7.1	41,578	1.7
1926.....	422,304	15.4	80,939	3.3	230,548	8.4	48,300	1.8
1927.....	465,183	18.8	92,727	3.4	217,803	7.9	58,761	2.1
1928.....	481,258	16.0	95,266	3.2	282,212	9.4	56,000	1.9
1929.....	478,744	15.2	97,485	3.1	372,158	11.8	62,234	2.0

¹ Fruit charter, etc., exclusive of Chinese and iron service.

² Per cent of total fleet.

From Table 82 it appears that 32.1 per cent of the total Norwegian fleet was in liner trade in 1929, as compared with 19.3 per cent in 1913. What is more significant is the increase in liner services in the indirect trades between foreign ports for Norwegian account, this type of employment having increased eightyfold in the period 1913-1929, from 4,588 gross tons, or 0.3 per cent of the total Norwegian fleet, to 372,158 gross tons, or 11.8 per cent of the total Norwegian fleet.

PARTICIPATION IN FOREIGN TRADE

Of the total entered and cleared tonnage of 11,500,000 in the foreign trade of Norway during 1913 Norwegian vessels constituted

⁴ Norway: Official Statistics, VIII, 148, Shipping, 1929, p. 11.

⁵ Sweden: Official Statistics, 1929, Shipping, p. 27.

⁶ Denmark: Official Statistics, Commercial Fleet and Shipping, 1929, p. 46.

50.7 per cent. For 1925 Norwegian tonnage constituted 54.4 per cent of the total movement in the foreign trade; in 1926, 51.3 per cent; in 1927, 51.6 per cent; in 1928, 55 per cent; and in 1929, 47.4 per cent. Swedish tonnage in the Norwegian foreign trade declined from 18.2 per cent in 1913 to 13.3 in 1929, Danish tonnage from 13.6 per cent to 7.5, and British tonnage from 11.4 per cent to 7.1, while German tonnage rose from 4.3 per cent in 1913 to 15 per cent in 1929.⁷

EARNINGS OF SHIPPING

The revenues of Norwegian shipping in the foreign trade provide one of the greatest sources of national income and purchasing power. In Table 83 the total freight earnings of the Norwegian fleet are stated, showing the trend in trip and time-charter earnings.

TABLE 83.—EARNINGS OF NORWEGIAN COMMERCIAL FLEET IN THE FOREIGN TRADE, 1913-1929

Year	Total gross freight earnings		Trip freights		Time-charter freights	
	Kroner	Equivalent in United States currency ¹	Kroner	Per cent	Kroner	Per cent
1913.....	218,619,000	\$58,590,000	125,662,000	57.5	92,957,000	42.5
1914.....	211,478,000	56,250,000	136,485,000	64.5	74,993,000	35.5
1915.....	474,625,000	122,800,000	359,857,000	75.8	114,668,000	24.2
1916.....	1,062,662,000	303,390,000	761,813,000	71.7	300,849,000	28.3
1917.....	1,107,177,000	337,250,000	580,376,000	52.4	526,801,000	47.6
1918.....	904,875,000	274,480,000	305,723,000	33.8	599,252,000	66.2
1919.....	1,032,528,000	253,800,000	445,535,000	43.2	586,993,000	56.8
1920.....	1,279,966,000	211,580,000	619,082,000	48.4	660,884,000	51.6
1921.....	544,214,000	81,140,000	366,190,000	67.3	178,024,000	32.7
1922.....	462,608,000	81,960,000	349,047,000	75.5	113,561,000	24.5
1923.....	483,127,000	80,540,000	367,229,000	76.0	115,898,000	24.0
1924.....	542,609,000	75,640,000	404,121,000	74.5	138,488,000	25.5
1925.....	483,992,000	86,540,000	366,307,000	75.7	117,685,000	24.3
1926.....	429,708,000	95,950,000	322,345,000	75.0	107,363,000	25.0
1927.....	422,738,000	110,120,000	311,964,000	73.8	110,774,000	26.2
1928.....	400,008,000	106,760,000	288,459,000	72.1	111,549,000	27.9
1929.....	432,061,000	115,270,000	295,977,000	68.5	136,084,000	31.5

¹ Converted at the par rate of \$0.268 for 1913; \$0.266 for 1914; \$0.2588 for 1915; \$0.2855 for 1916; \$0.3016 for 1917; \$0.3033 for 1918; \$0.2458 for 1919; \$0.1653 for 1920; \$0.1491 for 1921; \$0.175 for 1922; \$0.1667 for 1923; \$0.1394 for 1924; \$0.1788 for 1925; \$0.2233 for 1926; \$0.2605 for 1927; \$0.2669 for 1928; and \$0.2668 for 1929.

Source: Official Statistics of Norway, VIII, 148, Norway's Shipping, 1929, p. 11.

FOREIGN EXPENDITURES OF NORWEGIAN VESSELS

Inasmuch as a large percentage of the Norwegian commercial fleet finds employment in the indirect trades, its foreign expenditures are assumed to absorb a large part of the gross freight earnings. The statistics compiled in respect of this phase of employment of Norwegian vessels are of wide interest and are presented here for their value in connection with shipping economics generally.⁸

During the years 1867-1872 the statistical office of the Norwegian Department of the Interior requested detailed accounts of vessel operations for the purpose of establishing net earnings based upon

⁷ Norway Official Statistics, VIII, 148, Norway's Shipping, 1929, p. 8.

⁸ Norwegian Shipowners' Association, September, 1929.

gross revenues and all expenditures. Since expenditures made both in Norway and in foreign countries were covered, it became a simple matter to establish the percentage of gross freights absorbed by foreign expenditures.

From the 275 vessel accounts submitted during this period it was calculated that 41 per cent of the total gross freight revenues was expended in foreign ports in 1867, 42 per cent in 1868, 43 per cent in 1869, 39 per cent in 1870, and 42 per cent in 1871 and 1872, an average of some 40 per cent. These percentages were adopted officially in calculating the foreign trade balances of the nation for the years stated. In following years foreign expenditures ranged from 40 to 45 per cent; in 1880 they were 45 per cent, and beginning with 1883, 50 per cent. The increase was caused by a greater portion of Norwegian tonnage finding employment in the indirect trades between foreign ports.

In 1924 a special investigation of the subject was again instituted, and Norwegian owners were requested to submit vessel accounts showing foreign expenditures made under the heads of (a) coal, fuel oil, provisions and stores, (b) port charges and cargo handling, (c) wages paid, (d) commissions paid to foreign brokers, (e) repairs and classification expenses, and (f) other expenses. Reports covering 770 vessels with total gross freight earnings of 418,000,000 kroner, or 77 per cent of the total gross freight earnings of 542,600,000 kroner for the year 1924, were received. All reports were not complete; but upon the basis of the complete reports it was estimated that, of the total gross freights, 294,000,000 kroner (54.2 per cent) was expended as foreign expenses. The percentage of foreign expenditures varied with time-charter and trip freights, with direct and indirect services, and with types of vessels, as shown in Table 84.

TABLE 84.—PERCENTAGE OF GROSS FREIGHT REVENUES EXPENDED IN FOREIGN PORTS BY NORWEGIAN VESSELS, 1924

Earnings from—	Expended in foreign ports by—		
	Steam vessels	Motor ships	Sailing vessels
Trip freights:	<i>Per cent</i> ¹	<i>Per cent</i> ¹	<i>Per cent</i> ¹
Between Norway and foreign ports (direct trade).....	43.9	37.2	39.4
Between foreign ports (indirect trade).....	70.9	64.7	66.1
Time-charter freights:			(?)
Between Norway and foreign ports (direct trade).....	15.2	12.2	(?)
Between foreign ports (indirect trade).....	41.3	33.9	(?)

¹ Per cent of freight earnings.

² Figures not available.

The total estimated expenditure of 294,000,000 kroner was accounted for under the various classifications shown in Table 85.

TABLE 85.—FOREIGN EXPENDITURES OF NORWEGIAN VESSELS IN 1924, BY CLASSES

Foreign expenditures for—	Kroner	Per cent of gross freights
(a) Coal, fuel oil, provisions and stores	109,000,000	20.1
(b) Port charges and stevedoring.....	102,000,000	18.8
(c) Wages.....	35,000,000	6.5
(d) Commissions.....	18,000,000	3.2
(e) Repairs and classification expenditures.....	20,000,000	3.8
(f) Other foreign expenses.....	10,000,000	1.8
Total.....	294,000,000	54.2

In 1925, on the basis of 280 vessel reports received, covering gross freights of 150,000,000 kroner, or 32 per cent of the total, it was estimated that the foreign expenditures were 57 per cent of the total gross freights, or some 275,000,000 to 280,000,000 kroner from a total gross freight revenue of 484,000,000 kroner. This is accounted for by the lower tariffs prevailing during that year.

In 1926, with higher freights, the foreign expenditures were estimated at 52 per cent of the total gross freight earnings of 430,000,000 kroner, and in 1927 were placed at 50 to 51 per cent of the year's earnings of 423,000,000 kroner, based upon the rapid modernizing of the fleet and the increase in the use of motor ships. In 1928, with lower freights, the estimate was 53 to 54 per cent, or 210,000,000 to 215,000,000 kroner out of total gross freight earnings of 400,000,000 kroner. These figures are not accurate but are assumed to be a fair presentation of the subject, based upon the mass of representative data submitted.

During 1929 another special investigation disclosed that 48 per cent, or 207,000,000 kroner out of gross freight earnings of 432,000,000 kroner, was expended in foreign ports. This result was based on returns from 348 vessels with total freight earnings of 193,000,000 kroner, or 45 per cent of the total freight earnings of the Norwegian fleet for the year. The official Statistical Central Bureau attributes the reduced foreign expenditures to the continued modernization of the fleet and the increasing use of motor vessels and tankers—types which require relatively lower foreign outlays.

About 19 per cent of the income of the Norwegian fleet was earned by motor vessels in 1926; this rose to 33.3 per cent in 1929. A larger part of the total income was earned in the time-charter services in 1929, and the foreign expenditures of vessels in these services are less than for vessels on trip charters.

SHIPPING'S CONTRIBUTION TO INTERNATIONAL BALANCE

In the report of the British Department of Overseas Trade on economic conditions in Norway for 1927-28 there appears a tabulation presenting the effect of the earnings of the commercial fleet of Norway on the international trade balance of the nation. According to this, shipping earnings to be expended in Norway ab-

sorbed about 91 per cent of the excess of imports over exports in 1913, 73 per cent in 1926, 68 per cent in 1927, and 59 per cent in 1928.

On the basis of the figures just given for the fleet's foreign expenditures the trade-balance position is:

TABLE 86.—EFFECT OF SHIPPING EARNINGS ON NORWAY'S BALANCE OF TRADE

Year	Norway's foreign commerce			Earnings of Norwegian shipping	
	Imports	Exports	Excess of imports	Gross	To be expended in Norway
	<i>Kroner</i>	<i>Kroner</i>	<i>Kroner</i>	<i>Kroner</i>	<i>Kroner</i>
1913.....	532,321,000	392,613,000	159,708,000	218,619,000	148,000,000
1924.....	1,536,688,000	1,088,652,000	471,036,000	542,609,000	249,000,000
1925.....	1,378,504,000	1,048,282,000	330,222,000	483,992,000	205,000,000
1926.....	1,093,162,000	811,906,000	281,256,000	428,708,000	206,000,000
1927.....	976,583,000	684,738,000	291,845,000	422,738,000	207,000,000
1928.....	1,023,361,000	683,049,000	340,312,000	400,008,000	190,000,000
1929.....	1,072,638,000	752,046,000	320,592,000	432,061,000	225,000,000

POSTAL SUBSIDIES AND NAVIGATION BOUNTIES

The budget estimates of Norway contain perhaps the most nearly complete official record of shipping accounting and are particularly valuable as official discussion of the early employment of steam vessels. From 1860 to 1930 these estimates appear in a practically unbroken line among postal activities, under the general heading of "Contributions to private steam shipping." The mails, however, do not constitute the sole interest, the services being treated as trade-route services.

On May 13, 1914, the Norwegian Storting adopted a resolution which called for the appointment of a committee to investigate and report on the relative merits of state ownership and operation of the express coastal routes and state contribution to such operation. On April 14, 1916, such a committee was appointed. Two elaborate reports followed—one of April 9, 1918, as to the principles of state support to coastal traffic; the second, of March 26, 1920, on state operation, as represented by various county governments along the Norwegian coast, versus private operation of steamship services in the same districts.

These reports deal with the principles of state ownership and operation, and, together with the budget statements, form a complete record of the relationship between the Norwegian Government and shipping. The introduction to the second report declares: "Under all circumstances, until it is possible to depend upon an entirely differently developed railroad network than that which now exists, a frequent, regular, fast, and reliable coastal-route service is the only means of connecting the north and the south in our long-stretched land."

HISTORY OF GOVERNMENT OWNERSHIP

This second report goes on to say that State operation of steamships began in 1827, with two vessels offering weekly service from

Christiania (now Oslo) to Christiansand and between Christiania and Goteborg (Sweden) and Copenhagen (Denmark). State operation of steamships by Norway therefore antedates that of the French Government, which began in the thirties.

By 1841 steamer services extended along the entire coast of Norway to Hammerfest, and State operation reached its peak between 1855 and 1858 with extension of these services to Copenhagen and Kiel.

The original purpose of State ownership in Norway was to provide transportation for mail and passengers, but not for cargo, which later was carried to a small extent. In the meanwhile some privately owned steamers had begun operation, and by 1854 voices in the Storting were raised advocating the withdrawal of the State in favor of private initiative.

CHANGE OF POLICY

The shift of policy from direct Government ownership and operation to State contributions to private enterprise as private operation developed took place mainly between 1857 and 1860, the new system first appearing in the budget for 1860.

In 1857 an elaborate and complete discussion of the operation of seven steamers belonging to the postal administration appears in supporting reports to budget estimates. Operating costs, depreciation, high cost of repairs, revenues and expenses, freights, and competitive services are all dealt with, and the boiler-repair fund, which still exists under the stipulations, then had its inception.

In 1857 pressure was brought to bear from the west coast for State aid to a private venture from Bergen to Christiania in place of the support given Government vessels on this route, the principal argument being that the service would require time to become self-supporting. In 1860 this influence brought results in the letting of a contract for private operation with State support. This contract was dated May 28, 1860, and the contractors agreed to maintain weekly sailings for eight months each year on the Hardanger Fjord for a compensation of 6,400 specie dollars (\$5,900) annually, with one ship of specified cargo space and passenger accommodation and a speed of at least 7 Norwegian miles (49 English miles) in four hours in fair weather.

The budget estimates for 1862-63 go into extensive discussion of the postal ships; competition by private lines, and the consequent reduction in revenues of the Government vessels; reduction of income on Government vessels owing to maintenance of schedule as compared with full cargoes of private vessels; tabular presentation of expenses and revenues of Baltic and North Sea routes, showing boiler and machinery repairs; inability to turn these services over to Norwegian private operators sufficiently strong to carry them; and the inadvisability of sending the mails by foreign steamers.

From that time until the present the various routes are discussed each year and essential changes noted. This forms the basis for the estimates of the amount of Government contribution to maintain the service deemed essential in the public interest.

SUBSIDIES TO ROUTE SERVICES

Since the State contribution to Norwegian route services can in no manner be credited with the development of the powerful Norwegian foreign-going commercial fleet, a record of payments for route services is of importance in this record only as it may indicate the general increase in cost of vessel operation. Beginning with an annual amount of 17,000 specie dollars (\$15,600) for the budget period 1860 to 1863 and 14,500 specie dollars (\$13,300) annually from 1863 to 1866, State expenditures had reached 465,000 kroner (\$125,000) by 1880-81 and approximately 600,000 kroner (\$160,000) by 1890. In 1901-2, 1,215,796 kroner (\$325,800) and in 1910-11, 1,663,362 kroner (\$445,800) were expended on route services.

Since the World War the budget estimates have been considerably larger, due to fluctuations of exchange and to the high coal prices, which became the basis for the estimates. Thus, in 1922-23 the c. i. f. coal prices were 230 to 240 kroner (\$39 to \$41 at the then exchange) and the estimates were 15,000,000 kroner for the route services. The postwar budget estimates are presented in Table 87.

TABLE 87.—NORWAY'S BUDGET ESTIMATES TO COVER STATE CONTRIBUTIONS TO SHIPPING ROUTES, 1919-1932

Budget year	Estimated State contribution		Budget year	Estimated State contribution	
	Kroner	Equivalent in United States currency †		Kroner	Equivalent in United States currency †
1918-19.....	6,000,000	\$1,679,000	1925-26.....	7,700,000	\$1,582,000
1919-20.....	6,000,000	1,237,900	1926-27.....	7,069,300	1,885,000
1920-21.....	6,020,000	930,000	1927-28.....	6,736,000	1,794,000
1921-22.....	20,189,700	3,119,000	1928-29.....	5,836,000	1,556,000
1922-23.....	15,000,000	2,653,000	1929-30.....	5,865,000	1,567,000
1923-24.....	9,000,000	1,318,000	1930-31.....	6,025,000	1,614,000
1924-25.....	8,000,000	1,207,000	1931-32.....	6,208,600	1,663,000

† Converted at the average rate of exchange for years named to 1930 and at par (\$0.268) for 1931 and 1932.

The lines between Bergen and Newcastle (England), to Spain, Portugal, and Italy, and to Fredrikshavn (Denmark) are the only foreign-going shipping services which receive public funds in consideration of their maintenance of regular service, and this only to the extent of 5 per cent of the total expenditure. Thus practically the entire expenditure by the State is for postal and communication services between the numerous (and elsewhere inaccessible) coastal communities, requiring principally small vessels. In this respect the system finds a counterpart in the Italian so-called "indispensable" group of sea services. (See p. 289 preceding.) It is in effect the rural free delivery service of Norway and is designed to promote the comfortable existence of the land population of Norway, and not to develop naval power, shipbuilding, or merchant shipping in competition with other nations.

In 1907 the Storting authorized a 3-year contract for a direct service between Norway and Habana, Vera Cruz, Galveston, and Puerto

Mexico for an annual payment of 100,000 kroner (\$26,800), with sailings every one and one-half months. The services were to be increased to a monthly basis beginning with 1909; ships, if built, to be built in Norway unless serious extra cost or delay in delivery would be caused thereby. The company's tariffs were subject to the approval of the Government, accounts were to be furnished, and no agreement by the company was allowed which would be in conflict with the interests of the Government.

The expense accounts were to include all operating charges, interest charges, 5 per cent on all paid-up capital, and a 7 per cent depreciation on the original cost of the vessels. All revenues except the Government contribution were to be included. The difference between the revenue and expense accounts provided the basis for the Government contribution, and this was calculated on a hypothetical additional transshipment cost of the cargo which moved over the line if such cargo were handled and transhipped through Hamburg—which had been the practice before the direct service was established.

The Storting authorized a renewal of the contract from September 19, 1910, for four years, the payment to be 125,000 kroner (\$33,500) each year during the first three years and nothing during the final year of the contract. Upon expiration the contract was not renewed.

SUBSIDIES TO MAIL SERVICES

The Norwegian mails for continental Europe and foreign countries are primarily sent by rail over Sweden. To some extent the mail is dispatched by express steamers leaving Oslo twice a week for Newcastle, the pay being based on the International Postal Union rates. Another and more important service is entertained between Christiansand and Frederikshavn, Denmark, by three small steamers. Before the war the subsidy granted to the latter service was 80,000 kroner, plus postal rates.

The service was maintained with great difficulty during the war, and for short periods was abandoned. Late in 1920, with coal at 230 kroner per ton, the Government had to operate the steamers itself on time charter at 850,000 kroner for the three vessels. The subsidy for the year ended June 30, 1922, was 455,000 kroner, and the receipts at postal rates were approximately 170,000 kroner, but not included in the budget. In 1923 the subsidy was reduced to 300,000 kroner; in 1928-29 no appropriation was made for the service, but the budget for 1929-30 again carried an amount of 120,000 kroner. The Norwegian-American Line steamers are paid at International Postal Union rates by Norway and the United States for carrying mails between the two countries.

The pre-war subsidy of 170,000 kroner was increased to 250,000 kroner for five mail trips a week between Bergen and Newcastle, further increased to 710,000 kroner (\$190,000) upon the entry of a new vessel into the service in May, 1931.

Finally, a subsidy of 20,000 kroner, compared with 40,000 kroner before the war, was paid to the Otto Thoresen Line for voyages to and from Norway and Spain, Portugal, and Italy.

BUDGET ALLOWANCES FOR SHIPPING

In respect of Norway's expenditures for shipping services it is to be remembered that these services are principally of a local character, that the nation has only about 2,000 miles of railroads, that two-thirds of the population lives near the seacoast, that vessels are the only means of reaching many communities, that trade between the various communities is not sufficient to sustain regular ship communication, and that therefore the Government undertakes to absorb the deficits caused by maintaining regular communications between its various communities.

Commercial Attaché Marquard H. Lund, Oslo, under date of January 22, 1931, discussed the proposed budget for shipping services for 1931-32. He pointed out that the Norwegian budget proposals for that fiscal year again include a considerable amount for contributions to coastal and local shipping routes. The total is 6,206,600 kroner (\$1,663,000 at the par rate of \$0.268 to the krone), divided among 17 coastal routes, 16 routes on inland lakes, and 3 in foreign service. The last-named include the connections between Christiansand, Norway, and Fredrikshavn, Denmark; between Bergen, Norway, and Newcastle, England; and a small amount (20,000 kroner, or \$5,360) which may be used at the discretion of the Ministry of Finance to support traffic between Norway and Spain, Portugal, and Italy.

The amounts proposed vary from 800 kroner (\$215) on one of the small inland lakes to 827,000 kroner (\$221,600) to be paid to one of the steamship routes operating out of Hammerfest and connecting with small ports in the northern fjords. In practically every case the contributions go to steamship routes that provide the only means of communication for many of the small cities on the coast and on the lakes in the interior. Consequently, they can not be considered as direct subsidies in the general sense of that term, but are intended to insure passenger and freight service as well as delivery of mail. Without such support most of the routes would be discontinued because the districts served are so sparsely populated that the steamship operators can not possibly earn a sufficient return on their investment. The only exceptions are the three routes engaged in foreign service, of which the Bergen-Newcastle is the most important. This, together with the Fredrikshavn route, carries mail and receives support for that reason.

The total budget allowance for shipping services for 1929-30 was 5,865,000 kroner (\$1,567,000 at average exchange for the fiscal year). The clearest statement of the services covered, the relationship between local and foreign services, and the conditions imposed upon the contractors is a tabular budget estimate submitted to the Storting by the Norwegian Department of Commerce, which follows:

TABLE 88.—NORWAY'S BUDGET ESTIMATES TO COVER STATE CONTRIBUTIONS TO PRIVATE SHIPPING SERVICES, 1931-32

Item No.	Service	Contribution	
		Kroner	Equivalent in United States currency ¹
1	To Faroy Co. for services on fjords surrounding Farsund.....	7, 000	\$1, 876
2	To Flekkefjord Steamship Co. for services between Flekkefjord, Hidra, and Aana-Sira, and others.....	3, 200	858
3	For services between Haugesund and Utsira, with calls at Rovaar and Feoy according to further directions by the department.....	4, 700	1, 260
4	To Hjelme & Herlo Steamship Co. for services between Bergen, Kollveit, Storesund and others, also between Bergen, Hernar, and Nordoy-sund.....	12, 000	3, 220
5	To Lindaas-Masfjordens Steamship Co. for services on Masfjord, Aust-fjord, and Fedje.....	40, 000	10, 720
6	To county boats (Fylkesbaatene) in Sogn and fjords for services: (a) In the outer coastal districts in Sunnfjord and Nordfjord.....	50, 000	13, 400
7	(b) Gulen, Solund, and Aafjord.....		
7	For services on Rundoy, Hjørundfjord, between Molde—Fræna Haroy and others, between Kristiansund and Grip—between Kristiansund, Simla, Tustna, Aure, Hitra and Froya, between Kristiansund and Vinjoera, also between Kristiansund and Trondheim as determined by the department.....	225, 000	60, 300
8	For services between Trondheim, Hemne, Hitra, Froya, Froan, and Halten as determined by the department.....	77, 000	20, 636
9	To Namdalen Steamship Co. (Inc.) for services on Namdalen fjord and island districts.....	235, 000	62, 980
10	To Torghatten Steamship Co. for services between Bronnøy, Bindal, Vega, Velfjord, Sklinna, and others.....	278, 000	74, 504
11	To the Helgeland Steamship Co. for services on the Helgeland fjord and island districts.....	357, 000	95, 676
12	To Salten Steamship Co. for services between Bodo and northern Helgeland, Beiarn, Salten, Vaerene, Folden, Ofoten, and Lofoten.....	625, 000	167, 500
13	(a) For services between Svolvær, Lodingen, and Narvik.....	60, 000	16, 080
13	(b) For services between Narvik and Skjomen to be determined by the department.....	5, 000	1, 340
14	To Vesterdaalen Steamship Co. for services in Lofoten and Vesterdaalen.....	640, 000	144, 720
15	To Trom County Steamship Co. for services on the fjords in Trom County and on Andøy and Ofoten.....	530, 000	142, 040
16	To Finnmark County Shipowners for services between Hammerfest and Skjervoy and on Altafjord, between Hammerfest, west Finnmark regions, Porsangerfjord, Laksefjord, between Vardo, Tanafjord, Menhamn, and on to the Varangerfjord.....	827, 000	221, 636
17	For main coastal routes.....	1, 684, 900	505, 153
18	(a) To owner of steamship Farris for services on Farris Lake on condition that at least 400 kroner shall be raised by other means.....	900	241
18	(b) To Fyresdal Steamship Co. for services on Fyres Lake.....	3, 000	804
18	(c) To owner of motor boat Myllarguten for services on Totak Lake.....	900	240
18	(d) To Fram Steamship Co. for services on Sirdal Lake.....	3, 300	880
18	(e) To Nokken Co. (Inc.) for services on Lunde Lake.....	800	215
18	(f) To Orsdal Steamship Co. for services on Orsdal Lake.....	4, 800	1, 290
18	(g) To Suldal Steamship Co. for services on Suldal Lake.....	4, 000	1, 072
18	(h) To Breim Motor Boat Society for services on Breim Lake on condition that 300 kroner be made available through other means.....	1, 200	320
18	(i) To Aaredal Steamship Co. for services on Aaredal Lake.....	1, 200	322
18	(j) To Veitstrand Motor Society for services on Veitstrand Lake.....	1, 200	320
18	(k) To Hornindal (local government) for services on Hornindal Lake.....	2, 300	616
18	(l) To Stryn Steamship Co. for services on Opstryn Lake on condition that at least 200 kroner shall be raised by other means.....	800	214
18	(m) To Eikedal Steamship Co. for services on Eikedal Lake.....	4, 000	1, 072
18	(n) To Faemund Co. (Inc.) for services on Faemund Lake.....	7, 000	1, 876
18	(o) To owner of motor boat Kong Sverre for services on Selbu Lake.....	4, 300	1, 152
18	(p) To Rosvatn Steamship Society for services on Rosvatn Lake.....	8, 500	2, 278
19	For services between Christiansand and Fredrikshavn.....	100, 000	26, 800

¹ Converted at the par rate of \$0.268 to the krone.

TABLE 88.—NORWAY'S BUDGET ESTIMATES TO COVER STATE CONTRIBUTIONS TO PRIVATE SHIPPING SERVICES, 1929-30—Continued

Item No.	Service	Contribution	
		Kroner	Equivalent in United States currency
20	For services between Bergen and Newcastle as determined by the department.....	250,000	\$87,000
21	For services between Norway, Spain, Portugal, and Italy as determined by the department.....	20,000	5,360
22	For services by motor boats as determined by the department.....	2,600	697
23	To cover expenses of official administration of State-aided steamship services.....	25,000	6,700
	Total.....	6,206,600	1,663,368

NOTE.—Contributions are based upon following conditions unless otherwise specified:

- (a) That vessel routes and tariffs for the carriage of goods and passengers be approved by the department.
- (b) That vessels maintain connecting service with other vessels and railroads as determined by the department, and that companies shall not support or undertake competitive services which will compete with their State-aided services or with the State-aided services of other companies.
- (c) That vessels undertake the carriage of mail, besides loading and unloading of mail, on the conditions stipulated in connection with the determination of the contributions.
- (d) That members of the Storting shall have free passage on the vessels.
- (e) That the companies shall undertake, subject to departmental demand, to continue services up to 3 months following the expiration of a budget year in consideration of a payment for this period calculated according to the sum authorized for the budget period.
- (f) That the companies at all times shall render all accounts of their operations to the department as demanded, and that the auditors selected by the companies shall be approved by the department as required.
- (g) That the amount which eventually is set aside as a reserve or boiler fund shall not be utilized, except as determined, and that the Crown, in the event that the State-aided services shall cease, may determine that the fund be covered into the Treasury. This governs also that part of the fund which may be invested in the vessels.
- (h) That the companies shall obtain their coal supplies from Svalbard in the amount determined by the department.

GOVERNMENT CONTROL OF FREIGHT RATES

MAXIMUM FREIGHT LAW OF 1917

The maximum freight law, adopted July 7, 1917, and amended in April and November, 1919, was a link in a series of legislative measures enacted to insure to Norway's population essential commodities at reasonable prices during the period of inflated freights, tonnage losses, and tonnage control caused by the World War.

The law empowered the Crown to fix maximum rates for the transport of freight by Norwegian vessels from foreign ports to Norway. Vessels with reduced revenues through operating under the rates fixed by the law after January 1, 1918, as compared with vessels in other services, were reimbursed by annual assessments against all Norwegian cargo-carrying vessels which were subject to Norway's registry laws, except those serving in coastal trades or inland waters. The assessments were prorated on gross tonnage.

The Crown or designated authority made regulations, fixed the amount of the payments, and adjudicated the claims. Claims were paid to the Norwegian Shipowners' Association, which in turn undertook reimbursement to vessels affected by the law. Payments of assessments were due within 30 days under penalty of one-half of 1 per cent interest for each month or fraction thereof on unpaid amounts; and in case of nonpayment of assessments claims would be satisfied by preferred liens against the vessels under income-tax

regulations. Violation of the law carried a penalty of fines not to exceed 500,000 kroner, or imprisonment not to exceed six months, or both. No Norwegian ship-owning company could liquidate or retire from shipping registry until its obligations under the maximum freight law were completed, and Norwegian vessels might be forbidden lay up or decommission.

MAXIMUM FREIGHT RATES UNDER THE LAW

Maximum freights were established on August 9, 1917, by a committee of seven members named by the Government.

The rates fixed under the maximum freight law and their trend during the period following the World War are shown by rates on the following representative commodities:

Period from September 8, 1917, to March 19, 1920, from United States ports north of Cape Hatteras to Norway: Grain, per quarter of 480 pounds, 27 kroner to 19 kroner; flour, per 100 pounds, \$1.65 to 5.35 kroner.

Period from April 19, 1918, to March 14, 1920, from River Plate: Grain, per long ton, 155 to 135 kroner; flour, per long ton, 175 to 145 kroner. From Australia: Grain, per long ton, 250 to 160 kroner. From Java: Sugar, per long ton, from 285 to 165 kroner.

Period from February 1, 1918, to March 19, 1920, from east coast of United Kingdom: Coal, per long ton, 150 to 25 kroner.

By royal resolutions of March 19, May 1, and June 12, 1920, maximum freight rates were discontinued on certain commodities. By royal resolution of August 6, 1920, maximum freights were discontinued on other commodities except petroleum, and on December 10 of that year petroleum rates also were discontinued. The law was not repealed, however, until June 19, 1931.

EFFECT ON COAL AGREEMENT

Until the beginning of 1919 the transport of coal from the United Kingdom to Norway was carried on in British bottoms under a tonnage agreement. The withdrawal of British vessels on account of the war created difficulties which caused the Norwegian Government to forbid Norwegian coal-carrying tonnage to terminate voyages in other than Norwegian ports in so far as the coal requirements of Norway might dictate. The low freight rate set for coal under the law of July 7, 1917, did not attract Norwegian shipowners, and recourse was therefore had to an agreement between the State and the Norwegian Shipowners' Association, dated July 9, 1919, by the terms of which the Norwegian Shipowners' Association undertook to compensate coal vessels for freights in excess of 25 kroner (\$6.70 at par or \$6.15 at 1919 average exchange) per ton of coal from Great Britain in such instances as the Government might indicate.

EFFECT ON LINER SERVICE AGREEMENT

By an agreement dated January 24, 1920, between the State and the Norwegian Shipowners' Association, the latter undertook to provide, through Norwegian liner companies, sufficient tonnage for transport to Norway of commodities imported by both the State and

private importers, although space allotment to private importers was determined by the Government.

The liner companies and their service responsibilities were: (a) The Norwegian America Line, traffic from New York and Canada; (b) Norway-Mexico Gulf Line, all traffic from Cuba, Mexico (east coast), Gulf of Mexico, and Atlantic coast south of New York; (c) Norwegian, Africa & Australia Line, all traffic from Africa, Australia, Java, Japan, China, and India; (d) Scandinavian East Africa Line, traffic from southeast Africa; (e) Norwegian South America Line, traffic from Brazil and Argentina, divided among Otto Thoresen and Fred Olsen & Co., the Bergen Steamship Co., and the Nordenfjelske Steamship Co.; (f) Norway Pacific Line (Fred Olsen & Co.), traffic from the west coast of America.

These operations, in so far as they were affected by the maximum freight law and the requirements of the State, were under the general direction of a special bureau of the Norwegian Shipowners' Association charged with the enforcement of the regulations under which the operations were carried out. Reduction of losses to vessels, authorization to employ chartered tonnage, time-charter rates and conditions and routing, space allotment for State and private importers, and conditions of reimbursement were undertaken through this central office.

FINANCIAL RESULTS OF THE LAW

The following table outlines the working of the maximum freight law as relating to the extent of operations and losses in revenue:

TABLE 89.—OPERATIONS UNDER MAXIMUM FREIGHT LAW

Type of operation	Number of vessels	Number of voyages	Commodities carried	Quantity carried, tons	Loss in revenue		From—
					Total, kroner	Per ton, kroner	
Overseas time charter.	146	259	Grain, flour, sugar, coal, phosphate, petroleum, general.	1,122,063	46,181,355	41.16	North and South America, Australia, Java, and India.
Overseas trip charter.	19	20	Grain, flour, coal, petroleum.	99,212	2,547,297	25.68	North and South America.
Overseas by vessels owned by liner companies.	41	62	Grain, flour, sugar, general.	193,664	9,976,744	51.52	North and South America, Java, and India.
North Sea time charter.	86	196	Coal and coke.....	349,060	9,946,811	28.50	United Kingdom.

Since overseas operations were carried out at various periods, the costs incurred as stated in Table 89 are not comparable as to the three types of overseas services.

Final accounts were rendered as of June 30, 1931. The balance sheet of that date and the contributions of the State and the shipowners in the operation of the law are shown in Table 90.

TABLE 90.—MAXIMUM-FREIGHT CONTRIBUTION ACCOUNT AS OF JUNE 30, 1931

Debit	Amount		Credit	Amount	
	Kroner	Equivalent in United States currency ¹		Kroner	Equivalent in United States currency ¹
Contribution for coal transport.....	17, 772, 779	\$4, 763, 100	Covered by shipowners:		
Overseas time-charter transport for account of State Shipping Directorate and various shipowners.....	46, 181, 335	12, 376, 600	Maximum freight assessments, 1919.....	26, 781, 813	\$7, 177, 525
Overseas trip-charter transport.....	2, 547, 297	682, 675	Maximum freight assessments, 1920.....	44, 031, 176	11, 800, 350
Overseas transport in vessels owned by liner companies.....	9, 976, 745	2, 673, 775	Total.....	70, 812, 989	18, 977, 875
North Sea coal transport by time-charter tonnage.....	9, 946, 812	2, 665, 750	War-risk insurance.....	10, 347, 066	2, 773, 025
Various expenses:			Bunker contribution.....	338, 038	80, 600
Administration, audits, provision for customs offices.....	1, 153, 091	309, 025	Interest.....	746, 663	200, 100
Write-off of closed bank deposits.....	233, 297	62, 525	Total by shipowners.....	82, 244, 756	22, 041, 600
Total.....	87, 811, 356	23, 533, 450	Covered by the State:		
			State excess-insurance profits.....	4, 137, 737	1, 108, 925
			Coal fund.....	850, 000	227, 800
			Contribution for losses for transport of industrial coal.....	578, 863	155, 125
			Total by State.....	5, 566, 600	1, 491, 850
			Total.....	87, 811, 356	23, 533, 450

¹ Converted at the par rate of \$0.268. Annual average exchange rates during the period of greatest activity under the maximum freight law were: In 1917, \$0.3046; in 1918, \$0.3033; in 1919, \$0.2458; in 1920, \$0.1653.

FREIGHT CONCESSION LAW

Shortly before the adoption of the maximum freight law another transport-control measure was enacted, in the form of a freight-concession law passed on June 12, 1917. This law empowered the Crown to forbid the affreightment or charter of Norwegian vessels. Simultaneously a royal resolution required all shipowners to report every foreign freight loading to the Norwegian Shipowners' Association, which was charged with the administration of the measure. A division of the association was authorized to approve reported loadings and did so in cooperation with the Government. This law was repealed on July 7, 1922.

NORWEGIAN MARITIME CREDIT

GOVERNMENT LOAN FUND

In the early part of 1928 a large portion of the Norwegian fleet (203,540 gross tons) was laid up, and the enforced idleness had the further effect of greatly depressing the Norwegian shipbuilding industry. A departmental committee was appointed to investigate the position of Norwegian shipping in international competition. This committee presented its report on November 13, 1928, and found that Norwegian shipping was more heavily taxed at home than that of any other nation; that the State should assume certain burdens that

had been transferred to the owners some years ago; that working hours and victualling requirements should be revised.⁹

A year earlier representatives of owners, builders, trade unions, and others met under the chairmanship of the managing director of the Bank of Norway to devise ways and means of stimulating the shipbuilding industry. The net result of this activity was the establishment of a Government loan fund. The Bank of Norway offered, as its contribution to the loan scheme, to administer the fund for the State without charge other than the actual expenses incurred.

The Finance Committee report on the proposal states that on February 27, 1920, the Storting approved a recommendation that profits from the sale of three Government-owned motor ships should be set aside as a fund for the purchase of tonnage by the State. This fund remained unused for that purpose and by June 7, 1928, amounted, with interest, to 17,555,000 kroner (\$4,700,000). It was finally resolved—and in this the Norwegian Department of Commerce concurred—that of this fund 10,942,000 kroner should be covered into the treasury and 6,700,000 kroner set aside as a loan fund from which to finance second mortgages on ships built in Norway. The fund ends in 1933, at which time it is to be covered into the treasury.

LOAN LIMIT

The loan fund is open only to vessels in foreign competition. Construction of vessels must have reached the point of legal security according to the ship-registry law, paragraph 12, before the loan may be granted, and the loan is granted directly to the shipbuilding companies and transferred to owners when the vessel is completed and delivered.

Loans are not to be advanced beyond 70 per cent of the value of the vessel. This, however, means that the second mortgage shall not go beyond that limit. It is assumed, although not specifically stated, that this mortgage would follow a first mortgage of 50 per cent, privately financed, and that the effective amount of the second, or Government, mortgage, therefore, is limited to 20 per cent of the value of the vessel. The interest rate is 5.5 per cent.

In the committee reports covering the proposal it was stated that Danish shipbuilders extend a 65 per cent credit for five and six years on vessels built in Denmark for Norwegian account. It was also pointed out that ship financing in Norway is usually based upon a 50 per cent value of the vessel payable in 10 to 15 years at 6 per cent. Consequently the 70 per cent limitation placed on the Norwegian loan would enable the owner to build a vessel in Norway on a slightly higher credit limit. The 70 per cent credit limit, however, is offset by a 5-year time limit for repayment of the second-mortgage loan, such time to commence with the completion of the vessel.

According to the Norwegian Journal of Commerce and Shipping for October 13, 1930, 3,575,000 kroner (\$958,000) had been advanced against second mortgages on 22 vessels up to October 1, 1930. It was stated also that the Bank of Norway had received estimates of

⁹ British Department of Overseas Trade Report on Economic Conditions in Norway, 1927-28, p. 52.

the effect of the loan fund on employment, in that on June 30, 1927, 3,031 persons were employed in Norwegian shipyards, on June 30, 1928, 4,165 were so employed, and on June 30, 1929, 7,547.

During the 6-year period ending in 1928 ships built in foreign shipbuilding plants for Norwegian account aggregated 600,000,000 kroner (\$160,000,000). In 1928 Norwegian shipyards built only about 7,000 gross tons of vessels. On January 1, 1929, 39,500 gross tons were under construction, including 4,000 gross tons for foreign account; on January 1, 1930, 65,000 gross tons were under construction; on January 1, 1931, 21,260 gross tons; and on July 1, 1931, 23,165 gross tons.

PRIVATE SHIP-MORTGAGE BANK

In 1927 there was organized a ship-mortgage bank, the Norsk Skibshypothekbank A/S. This bank was established without any Government support, and is conducted by the shipowners themselves, entirely without Government supervision.

The bank opened on January 1, 1928, with a fully paid in share capital of 4,180,000 kroner, a bond capital of the same amount, and a reserve fund of about 400,000 kroner. The original capital was provided from part of the surplus of the National War Insurance Club on its liquidation, and was to be increased as the remainder of that surplus became available. In October, 1929, the amount available was 4,150,000 kroner, and mortgage bonds to the extent of 11,000,000 kroner had been issued.

Under its statutes the bank may not advance loans in excess of 1,000,000 kroner (\$268,000 at par) on one hull. Repayment is to take place over a period of 10 years. The interest rate is 6 per cent. Vessels built in Norway are given preference, but advances have also been made on ships under construction abroad for Norwegian account.

PREFERENCES AND RESTRICTIONS

RESERVATION OF THE COASTING TRADE

The Norwegian coasting trade is not extensive, and therefore offers no great inducement for operations of that character. In fact, as previously noted, the route services are mostly supported by direct Government contributions, a condition that would not obtain if the required services could be made self-supporting.

In reply to an inquiry through the American commercial attaché at Oslo, the Norwegian Shipowners' Association states in respect of the coasting trade:

(1) No laws or regulations restrict the coasting trade on the Norwegian coast to ships of Norwegian registry, except when agreed upon by treaty. Such mutual treaty exists solely between Norway and Sweden (from 1905).

(2) The conditions open to foreign ships are exactly similar to those prevailing for domestic ships.

(3) At present some few German and Danish ships avail themselves of these conditions; occasionally, perhaps also British ships.¹⁰

¹⁰ Letter from Commercial Attaché Marquard H. Lund, Oslo, May 7, 1929.

EXEMPTION FROM FISCAL CHARGES

IMPORT DUTIES

Instead of granting shipbuilders exemption from duties on imported raw materials used in ship construction, it has long been the practice in Norway to pay fixed sums as reimbursement for duties paid. Such payments are therefore not to be regarded as construction or shipbuilding bounties, although they may slightly exceed the amount of duties actually paid.

These payments formerly were made in accordance with article 12 of the Norwegian customs tariff. The tariff of 1905, which was in operation until July 1, 1915, provided that reimbursement for duties paid on shipbuilding material should be made in the case of every vessel of more than 50 tons gross register constructed in Norwegian shipyards, for foreign as well as for Norwegian account. Instead of being given in the form of a drawback, this so-called reimbursement consisted of the payment of flat sums per gross register ton of vessel.

The tariff law of July 1, 1915, changed the form of reimbursement. Instead of the flat rate, an amount equal to a certain percentage of the purchase price is granted. This grant is given not only for new construction, as in the former tariff law, but also for repair work costing more than 1,000 kroner (\$268).

Under resolutions of the Storting of June 18 and 19, 1929, and royal resolutions of June 20 and 26, 1929, such customs refunds may be allowed in connection with new vessels, repairs, refitting, or reconstruction, or repairs and reconstruction of parts of the vessel, as follows:

(a) On new vessels, 4 per cent of the sales price of the vessel for steam and motor vessels of 150 gross tons and upward, and on whaling vessels regardless of size. On steam, motor, and sailing vessels from 50 to 149 tons a reimbursement of 2 per cent of the sales price is made. Reimbursements are reduced by one-third for steamers whose main engines and main boilers, and for motor ships whose main engines, are installed in foreign countries.

(b) On repairs costing 1,000 kroner or more, a reimbursement of 3 per cent is made for vessels of 150 gross tons and upward, and for whaling vessels regardless of size.

Customs authorities may demand information concerning the use of parts and materials which could satisfactorily be obtained and produced in the domestic market but which have been imported, and in computing the reimbursement may reduce the cost or sales price by the value of such imported articles or material, thus reducing the reimbursement and encouraging domestic production of materials and parts.

TAXES ON SHIPPING CORPORATIONS

In conformity with Norwegian corporation-tax practice, shipping companies pay both national and municipal taxes. The national tax is progressive; the tax to the municipality is not. The national taxes are the same for the whole country; the taxes to municipalities may vary considerably in different districts.

NATIONAL TAXES

State tax on income.—Corporations pay 6 per cent national income tax (1929 rate) on the total net income calculated on the basis of the average net earnings during the preceding three years. Formerly a surtax of 10 per cent was paid on all income not distributed as dividends to shareholders, but by royal proclamation of June 6, 1930, this was reduced to 8 per cent. If the net income has been distributed as dividend, this is taxed as income of the shareholders at a progressive rate up to a maximum of 50 per cent, according to the total earnings of each individual. These rates also have been reduced.¹¹

Out of consideration for American stockholders in the Norwegian-American Line, the Storting in 1927 modified the section of the income-tax law that levied a 20 per cent tax on income derived by foreigners from shares in Norwegian corporations and companies. The amendment submitted by the Norwegian Government stated that 2,300 stockholders were American citizens, who held 40 per cent of the capital stock of the company.

State tax on property.—A State tax of 2 per 1,000 is assessed on property.

MUNICIPAL TAXES

Municipal tax on income.—Municipal taxes vary in different parts of the country. As an example, those for Oslo may be cited, where the income tax has varied from 13.15 per cent in 1925-26 and 12.61 per cent in 1926-27 to 12.55 per cent in 1927-28. The municipal income-tax rates for various communities ranged from 11 per cent to 20.30 per cent in 1927-28, and the average for the all communities was 15.71 for the same year.

Municipal property tax.—The municipal property tax varies with the community and for the year 1927-28 averaged 3.62 per 1,000.

Prior to 1898 the Norwegian Government, in a number of communications, requested the various communes not to tax shipping companies receiving State aid in any form. In 1904, however, the Department of Taxation held that if the aid given steamship companies by the State did not result in positive balances there would be no taxable income; that if, on the other hand, the aid granted was large enough with the earnings of the shipping companies to provide a surplus for division among the owners, then there appeared no reason why this surplus should not be taxed in the usual way. Consequently, shipping companies receiving State aid are now taxed in the same manner as nonsubsidized companies and according to the principles governing taxation of other properties and business.

PREFERENTIAL RAILWAY RATES

Norwegian shipping lines do not have any agreements with the railroads whereby they secure a preferential or more favorable through rate on cargo. All the principal railroads are owned by the State and are thus under official control.

¹¹ British Board of Trade Journal, July 31, 1930, p. 125.

SECONDARY MARITIME COUNTRIES

AUSTRALIA

ECONOMIC DEVELOPMENT AND SHIPPING

Australia, the only country in the world that covers an entire continent, has an area of nearly 3,000,000 square miles and a population that at the close of 1927 numbered about 6,234,000. The Commonwealth is self-governing but not self-sustaining, being dependent upon imports of finished manufactures and exporting raw materials and agricultural products, chiefly wheat, wool, and butter—an economic situation directly the reverse of that of the United Kingdom. Adequate and cheap transport is of paramount importance to its welfare.

The sea is Australia's principal means of communication between its own communities as well as with other parts of the world. Although now there is more railway mileage in proportion to population than in any other country, the existence of excellent harbors and the concentration of population along the coast make transport by sea the natural method of conveying goods between many places in the Commonwealth.

The following statement from the Economic Record of August, 1930, summarizes the problem of Australian sea services:

THE PLACE OF THE SEA IN AUSTRALIA'S TRADE

Every trade has its own peculiar requirements and every country is served by the world's shipping. Australian requirements have, nevertheless, some special and onerous characteristics which make cheap services difficult, and efficient service a matter of particular importance. Australia is not only the most distant continent, but it is on no trade route, so that its transport problem is similar to that of our most inland towns. Australian cargoes can not be set down and picked up en route to somewhere else; it is itself a terminal. And once the continent is reached from overseas, it takes as long to reach the main ports on the farther coast as it does to cross the Atlantic.

Moreover, the ports are spread from Fremantle to the north of Queensland, with Tasmania as a diversion. A cargo vessel has commonly to spend four to six weeks discharging and loading around our continental coast line. The number of loading ports has increased and the demand is constantly for more discharge ports in Europe also. The technique of loading and discharging different classes of cargo at and for so many ports is a problem in itself, but what is more important is that the time taken in Australian waters has increased while the ships themselves have become more costly.

The seasonal character of Australian exports makes its transport requirements very onerous. The average annual fluctuation of export of wool, meat, wheat, fruit, and butter has been 40 per cent in recent years, and the range of these fluctuations is enormous. These cargoes have to be planned for several months in advance, long before seasonal and market conditions are known, and before some of the produce (e. g., fresh fruit) begins to be grown.¹

¹ Bridgen: Oversea Shipping, in The Economic Record for August, 1930.

WATER-BORNE COMMERCE

The extent of Australia's sea-borne trade is illustrated in the following table:

TABLE 91.—CARGO DISCHARGED AND SHIPPED IN AUSTRALIA, 1918-1929

Year ended June 30—	Cargo discharged			Cargo shipped		
	Total	Overseas	Interstate	Total	Overseas	Interstate
	<i>Tons</i>	<i>Tons</i>	<i>Tons</i>	<i>Tons</i>	<i>Tons</i>	<i>Tons</i>
1918.....	6,721,463	2,012,387	4,709,076	7,446,989	2,613,561	4,833,428
1919.....	6,850,880	2,312,288	4,538,592	8,308,909	3,813,651	4,495,258
1920.....	6,612,466	2,235,298	4,377,168	9,400,855	4,984,946	4,415,909
1921.....	8,194,245	3,201,215	4,993,030	10,918,811	5,925,133	4,993,678
1922.....	7,865,581	2,419,977	5,445,604	11,349,890	5,816,174	5,533,716
1923.....	8,750,822	3,718,795	5,031,827	9,201,847	4,064,196	5,137,651
1924.....	10,751,010	4,377,171	6,373,839	11,339,712	4,981,521	6,358,191
1925.....	11,141,431	4,696,112	6,445,319	12,912,073	6,498,098	6,413,975
1926.....	11,152,002	5,342,621	5,809,381	10,905,380	5,169,407	5,735,973
1927.....	12,644,458	5,955,212	6,689,246	12,042,297	5,246,141	6,796,156
1928.....	11,996,838	5,889,127	6,107,711	10,911,394	4,686,306	6,225,088
1929.....	11,709,274	6,067,429	5,641,845	10,835,833	5,285,540	5,550,293

Source: Official Statistics, Commonwealth of Australia. Transport and Communication Bulletin No. 21, Table No. 47.

Less than 3 per cent of the total foreign trade was carried by Australian vessels in 1929, about 29 per cent by vessels of foreign registry, and the remainder by vessels registered in the United Kingdom or in other British possessions. The outward and inward movement of Australia's foreign trade by vessel nationality during 1928-29 is shown in Table 92.

TABLE 92.—OVERSEAS CARGO DISCHARGED AND SHIPPED IN AUSTRALIA, BY NATIONALITY OF CARRYING VESSEL, 1928-29

Nationality of vessel	Total	Cargo discharged	Cargo shipped
	<i>Tons</i>	<i>Tons</i>	<i>Tons</i>
Australia.....	255,296	123,950	131,346
Great Britain.....	6,988,043	3,047,697	3,040,346
Other British possessions.....	869,620	371,261	498,359
Total British countries.....	8,112,959	4,442,908	3,670,051
Total foreign countries.....	3,243,515	1,624,521	1,618,994
Total overseas merchandise movement.....	11,356,474	6,067,429	5,289,045

THE AUSTRALIAN COMMERCIAL FLEET

GROWTH OF THE MERCHANT MARINE

Lloyd's Register for 1931-32 lists the combined fleets of Australia and New Zealand as 593 steamers and motor ships of 677,463 gross tons. Only 33 vessels, of 188,606 gross tons, were of 4,000 gross tons or more. Employment for the fleet has been found principally in the coasting trades of New Zealand and Australia.

Australia's own official tonnage statistics are on a net-ton basis and include dredges, tugs, auxiliary vessels, barges, and hulks, as

well as steamers and sailing vessels. For the period 1919 to 1929 the net register tonnage of the Australian fleet was as follows:

TABLE 93.—GROWTH OF THE AUSTRALIAN COMMERCIAL FLEET

Year	Number of vessels ¹	Net tons ¹	Year	Number of vessels ¹	Net tons ¹
1919.....	2,559	417,480	1925.....	2,461	469,164
1920.....	2,483	404,519	1926.....	2,458	451,183
1921.....	2,471	431,196	1927.....	2,444	452,070
1922.....	2,487	491,055	1928.....	2,410	384,622
1923.....	2,489	486,381	1929.....	2,395	370,186
1924.....	2,481	497,581			

¹ Includes vessels of all types.

Source: Official Statistics, Commonwealth of Australia. Transport and Communication Bulletin No. 21.

GOVERNMENT OWNERSHIP AND OPERATION

The 12-year period (1916–1928) of activity in shipping by the Australian Government encompassed the acquisition, ownership, operation, and liquidation of overseas steamer lines. The general principle of Government ownership and operation was involved during the entire time, but no official recognition of it was made by statute until the enactment of the shipping act of 1923 and the creation of the Australian Commonwealth Shipping Board, which, in effect, was no more than an operating and liquidation board for the final clearing up of the interests of the Government.

The Joint Committee of Public Accounts in 1926 began an investigation of the Commonwealth Government shipping activities and issued its report on May 6, 1927, after having held hearings and examined about 50 witnesses representing all interests concerned. The discussion which follows is based upon that report.

ACQUISITION OF OVERSEAS FLEET

In 1916 Australia was faced with a lack of tonnage with which to maintain sufficient overseas communications. To meet a situation which was deemed to be acute the Prime Minister purchased 15 used cargo vessels in England, which became the nucleus of the fleet. The acquisition program was as follows:

By purchase: 15 used cargo vessels, known as the Austral class; 11 of these were transferred to the Shipping Board in 1923.

By seizure: 18 ex-enemy vessels; 17 of these were transferred to the Shipping Board in 1923.

By construction: 6 D class vessels of 3,350 gross tons (5,608 dead-weight tons) and 9½ knots speed, built in 1919 and 1920; 13 E class cargo vessels of 3,350 gross tons (6,170 dead-weight tons) and 9½ knots speed, built in 1920, 1921, and 1922; 2 Dale class vessels of 9,700 gross tons (12,800 dead-weight tons) and 14½ knots speed, built in 1923 and 1924; 5 Bay class passenger and cargo steamers of 14,000 gross tons (12,500 dead-weight tons), with accommodations for 738 one-class passengers, 765,000 cubic feet bale space, and 370,000 cubic feet of refrigerated space, built in 1921 and 1922; 14 wooden motor ships and steamers built in the United States in 1918 and 1919 for Australian account.

OPERATING RESULTS UNDER ORIGINAL MANAGEMENT

Direction of the fleet was at first conducted from a head office established in London, the business being conducted on an agency basis. Later branches were opened in the principal ports of Australia and a general manager for Australia appointed.

The story of the Australian Government fleet is somewhat similar to that of the Canadian Government fleet, the line showing a profit during the immediate postwar period and losses thereafter. From the beginning of operations until the transfer of the lines to the Commonwealth Shipping Board on August 31, 1923, the net result, exclusive of depreciation charges, was an excess of revenues over expenditures of £1,940,153 (\$9,441,750)²; but a depreciation charge covering all classes of tonnage and amounting to £2,155,155 (\$10,488,060) changed this to a net loss of £215,002 (\$1,046,310), and office and administration expenses of £265,582 (\$1,292,450), interest charges of £782,143 (\$3,806,300), depreciation on furniture and fittings of £3,835 (\$18,665), and boiler-repair and renewal reserves of £250,000 (\$1,216,625) brought the total loss under the old management to £1,516,562 (\$7,380,350). Two items, sundry interest earnings and commissions and balances from sales of steamers amounting to £291,442 (\$1,418,300), were credited against this, leaving a net loss chargeable to the original management, according to the committee report, of £1,225,120 (\$5,962,050).

CONTEMPLATED REORGANIZATION

In November, 1921, the Government shipping and shipbuilding activities were debated at length in the House of Representatives and it was indicated that the Government line should be retained but with drastic alteration in the system of control. With regard to shipbuilding it was felt that the existing construction program should be completed and that any future developments should be left to private enterprise.

In July, 1923, the first statutory recognition of the Commonwealth Government's participation in the shipping business was introduced in the House of Representatives. The Prime Minister, in introducing the measure, indicated that the Commonwealth Line had rendered valuable service during the war, but was steadily increasing its losses because of shipping depression, high operating cost of the steamers, high book valuation of the tonnage, and unsuitability of the vessels to Australian needs. He recommended the sale of some of the ships.

CREATION OF COMMONWEALTH SHIPPING BOARD

The shipping act of 1923 provided for the establishment of the Australian Commonwealth Line of steamers under control of a board of directors of not less than three nor more than five members, to be known as the Shipping Board. To enable the Shipping Board to cover expenses in establishing and working the steamer line, debentures were issued and further flotations authorized for additional

² The par rate of \$4.8665 has been used for all conversions to American currency throughout this section.

capital, subject to approval by both Houses. Any profit was to be paid into a reserve fund, part of which was to be used in redeeming debentures.

The income, property, and operations of the board were made subject to the rates, taxes, and charges payable by a business or trading organization formed by private individuals.

The membership of the board comprised three appointees, the first of whom was the former manager of the lines and who was appointed for five years at an annual salary of £3,500 (\$17,000), the others for four years and for nine months, respectively, at salaries of £3,000 (\$14,600) annually.

TRANSFER OF FLEET TO SHIPPING BOARD

The Commonwealth shipping act of 1923 became effective on September 1, when the new Shipping Board came into power and the transfer of the fleet was made to the new governing body. There were handed over to the board 54 steamers officially written down to a valuation of £4,718,150 (\$22,960,875) and office furniture at £7,500 (\$36,500).

From a schedule included in the report setting forth the name, specifications, history, original cost, and book value of each vessel at the time of transfer to the board it appears that the capital cost of the entire fleet, exclusive of the wooden fleet built in the United States and ex-enemy vessels which had been lost, was £14,887,758 (\$72,451,275). By depreciation this had been reduced to £12,716,800 (\$61,886,300). As the board took the fleet over at £4,718,150, a capital loss of £7,998,650, or \$38,925,430, was written off in the transfer.

When the board took over operation of the line, 27 vessels were laid up. The board determined that 20 more vessels could not be operated and that only the 5 Bay class and 2 Dale class steamers reasonably could be expected to pay anything in excess of voyage disbursements and that they would not cover interest and depreciation. Among the official reasons stated for these conditions, covering the two general groups of vessels, were:

1. D and E class ships were considered unsuited to overseas trade, being small, slow, and expensive, their running and maintenance costs were excessive, and the cost of manning and provisioning under Australian articles as compared with competing ships was high.

2. The Bay and Dale class ships had difficulty in obtaining cargo, due to industrial trouble and adverse press comment; the cost of manning and provisioning amounted to more than 5 per cent on their transfer value.

3. There was more than double the tonnage on the United Kingdom-Australia berth necessary to carry the cargo offering.

4. Announcement that the Government was prepared to receive tenders for the sale of the line was detrimental.

Comparative operating costs

Comparing operating costs, the Bay steamers carried a complement of 170 at a cost, including overtime and leave, of £3,725 (\$18,125) monthly, while a similar English vessel carried a crew of

154 at a monthly cost of £1,654 (\$8,070). Comparison of actual wages for the year ended March 31, 1926, on the five Bay steamers and the estimated wages for similar English steamers showed actual wages on the Australian steamers of £204,987 (\$997,570), while the estimated wages under English articles would have been £87,229 (\$424,500). Extra victualling costs increased this by £9,510 (\$46,280), making a total of increased costs to the Australian vessels of £127,268 (\$619,350). It was estimated that the extra cost of the seven ships on Australian articles was £220,000 (\$1,070,630) in one year.

From September 1, 1923, to March 31, 1927, operation of the line, including administrative expenses, depreciation, and interest, resulted in a loss of £1,917,815 (\$9,333,000). Of this the excess of voyage expenses over voyage revenues was £628,894 (\$3,060,500).

Unsuitability for mail service

The line of seven vessels between Australia and the United Kingdom carried perhaps 20 per cent of the passenger traffic; but the fleet was considered too slow for mails, and inasmuch as the Orient Line was under contract with the Commonwealth Government to convey mails from Australia to the United Kingdom and the Peninsular & Oriental Line was under contract with the Imperial Government to convey mails from the United Kingdom to Australia, the amount of mail matter that could be sent by the Commonwealth Line of Bay steamers was not very large.

It was also shown that of a complement of these vessels comprising 1,034 persons, 514 were domiciled in Australia, while 520 were domiciled in the United Kingdom.

SALE OF STEAMERS TO WHITE STAR LINE

Up to the time of the final report of the Joint Committee of Public Accounts on May 6, 1927, all vessels of the Commonwealth fleet except the seven steamers of the Bay and Dale class had been sold. The sales price, less commissions, was £1,103,172 (\$5,368,585).

On January 2, 1928, the Commonwealth Government invited tenders for the five Bay class and two Dale class steamers. These seven vessels had a total gross tonnage of 88,586 and an almost equal dead-weight tonnage, namely, 87,260 tons. Tenders for purchase were restricted to native-born British subjects or British-owned companies whose articles of incorporation contained a prohibition against the transfer of stock ownership to non-British subjects. It was stipulated that the purchaser would be required to maintain the vessels under British registry for at least 10 years, and during that period to conduct with the fleet, or a fleet of similar ships, a service equal to that offered by the Commonwealth Line, with at least 18 sailings annually. Particular consideration was promised bidders who would maintain a reasonable passenger service, supply refrigerated space, and safeguard the interests of Australian importers and exporters in respect of freight rates.³

³ Parliamentary Papers, Commonwealth of Australia, Command Paper 225, May 2, 1928.

Particulars of tenders

Three tenders were received. On February 29, 1928, Viscount Kylsant, as chairman and managing director of the White Star Line, newly acquired from the International Mercantile Marine Co., submitted an offer of £1,850,000 (\$9,003,000) for the seven vessels, accepting the general provisions of the stipulations of the invitation for tenders and requiring in return that any nationally favorable treatment accorded the Commonwealth Line by the Government of the Commonwealth of Australia should be continued during the term of the guaranty. The tender was accompanied by $2\frac{1}{2}$ per cent of the bid and an offer of £250,000 cash upon delivery of all vessels followed by 10 equal annual payments of £160,000 at $5\frac{1}{4}$ per cent interest. By negotiation this offer was increased to £1,900,000 (\$9,246,350), the price finally accepted, with an interest rate of $5\frac{1}{2}$ per cent, the increase in amount being based upon the high cost of repatriation of the crews due to delivery of vessels at London. This cost was reduced by an offer to carry repatriated crews to Australia at reduced rates and also to employ all suitable officers and engineers with the vessels. On April 7, 1928, the White Star Line offer was accepted and on April 21, 1928, the sales contract was signed.

Of the two other offers received for the Commonwealth Line one was made by Runciman (London) (Ltd.), proposing to form a company, to be called the Anglo-Australian-Commonwealth Line and capitalized at £1,500,000, for the purpose of purchasing and operating the Bay and Dale class vessels. On behalf of the proposed company the bidder offered £1,000,000 (\$4,866,500) for the fleet, with a cash payment of £500,000 and $5\frac{1}{2}$ per cent debentures in the amount of £500,000. The bidders refused to guarantee maintenance of the vessels on the British or Dominion register for 10 years, stating that it was their intention to consider building and improving the service, requesting at the same time that the Australian Government render all possible assistance through controlled immigration and mail contracts in case the line was improved by the addition of fast vessels. This offer was later increased to £1,250,000 (\$6,083,125), the additional price being added to the debenture portion.

The third offer for the line was made by Sir James Connolly in behalf of a managing company to be formed by Staley & John Thompson (Ltd.), the offer being £1,575,000 (\$7,664,735), which subsequently was increased to £2,000,000 (\$9,733,000) provided the company would be released from the obligation of maintaining a fast line.

POSTAL CONTRACT SERVICES

Regular steamship communication between Australia and Europe was established in 1852 by a service run by the Peninsular & Oriental Co. between Singapore and Sydney, via King Georges Sound, Adelaide, and Melbourne. This service was continued until 1854, when it was stopped in consequence of the Crimean War. In 1856 a line of steamers was again started, and the service was carried on by the Peninsular & Oriental in conjunction with the Royal Mail Steam Packet Co. for some years.⁴

⁴ Australian Yearbook, 1901-1913.

The service via the Red Sea did not at that time give much satisfaction to the public and was looked upon with a certain amount of disfavor in New South Wales and New Zealand. The effect was to stimulate the colonists to agitate for an improved service, and proposals were made for the establishment of a line of mail packets from Sydney to Panama via Wellington, by rail across the Isthmus, and thence to Great Britain. In 1866 this line was started, and it continued in operation until terminated in 1868 by the failure of the company which had carried it out.

CONTRACT OF 1869

Completion in 1869 of the railway across the American continent with its western terminus at San Francisco opened up a new route to Europe, and in that year a monthly service was begun by the Union Steamship Co. in conjunction with the Pacific Steamship Co., from Sydney to San Francisco via Auckland. This service was subsidized to the extent of £37,000 (\$180,060) per annum, of which New South Wales paid £25,750 (\$125,310) and New Zealand £11,250 (\$54,750), and continued until November, 1890, when a new contract was entered into and the subsidy much reduced, the amount of the contribution being based upon the weight of mail matter carried.

Various extensions of the contract were made, but the last agreement between the New Zealand Government and the Oceanic Steamship Co. of San Francisco expired on November 10, 1906. From that date mails were carried at Postal Union rates until April 12, 1907, when the service was discontinued.

CONTRACT OF 1893

During 1893 a direct monthly service was started between Sydney and Vancouver (British Columbia) via Wellington, and thence to Liverpool over the Canadian Pacific Railway, the New South Wales Government paying for its maintenance an annual subsidy of £10,000 (\$48,665) for three years. In 1896 the agreement was renewed for a like period, and in 1899 was again renewed, for four years, subject to the same terms and conditions except that the route was via Brisbane instead of Wellington. The contract was further prolonged until July 31, 1911, at a subsidy of £26,626 (\$129,575) per annum.

CONTRACT OF 1905

Establishment of the mail route via San Francisco had the effect of stimulating the steamship owners who were engaged in the European service via Suez, and from that time there was marked improvement in the punctuality and speed with which the mails were delivered. The Peninsular & Oriental Co. and, at a little later date, the Orient-Pacific Co. have carried mails to and from Australia almost since the inception of ocean steam services. Postal matter was carried by contract until 1905, when the contract between the Peninsular & Oriental Co. and the Commonwealth Government expired. Mails still are carried from Australia by the P. & O., but they are carried at Postal Union rates and not under contract with the Commonwealth. On April 25, 1905, the Orient-Pacific Co. concluded a new

contract with the Commonwealth Government for a fortnightly service between Australia and England. The subsidy was at the rate of £124,880 (\$607,730) per annum.

CONTRACT OF 1907

On January 1, 1906, tenders were invited by the Commonwealth Postmaster General for a fortnightly mail service between Adelaide and Brindisi, to alternate with a similar service to be provided by the Imperial Government, and a contract was entered into with Sir James Laing & Co. (Ltd.) at an annual subsidy of £125,000 (\$608,310). However, this contract fell through, and new tenders accordingly were called for.

On November 15, 1907, an agreement was entered into with the Orient Steam Navigation Co. for a fortnightly service over a period of 10 years, commencing in February, 1910. The mail schedule was to be carried out by existing vessels belonging to the company and by five new mail ships, of 12,000 gross tons and of not less than 17 knots speed, which were to be specially built. Two more new vessels were to be added within 18 months and 6 years, respectively, from February, 1910. The subsidy was fixed at £170,000 (\$827,300) per annum; but, if the earnings of the company decreased, or the expenses increased, by reason of any Commonwealth shipping legislation passed subsequently to the date of the agreement, to the extent of not less than £5,000 (\$24,330) a year, the contractors had the right to terminate the agreement unless the subsidy was increased.

Each of the new vessels was to have insulated space of not less than 2,000 tons of 40 cubic feet, and the freights were not to exceed one-half penny per pound for butter and 60 shillings per ton for fruit. White labor only was to be employed, and no discrimination was to be made between unionists and nonunionists. If before or during the sixth year of the contract an accelerated service was provided by any competing line of mail ships, the contractors must, if so required by the Postmaster General, furnish a service equal to the competing service, at an increased subsidy to be determined by agreement or arbitration. The Commonwealth flag must be flown on the mail ships, which the Commonwealth had the right to purchase at a valuation at any time. Within six months of the Postmaster General's establishing a permanent wireless-telegraphy station at Rottneest Island, or at any point on the coast between Fremantle and Brisbane, the company must fit the mail ships with wireless-telegraphy installations. The new service was inaugurated on February 11, 1910. This contract was renewed April 27, 1921.

ORIENT CONTRACT OF 1921

The present contract with the Orient Steam Navigation Co. is dated April 27, 1921, and is to continue until 12 months' notice is given by either party to the contract. The contractor, however, may terminate the contract on shorter notice if earnings fall, or expenses rise, in an amount of at least £5,000, due to legislation enacted by the Commonwealth Parliament. Sailings are required once every four weeks between Fremantle and the United Kingdom in each direction, with delivery of mails from Australia or pick-up of mails

for Australia at Toulon or Marseille, from and to which points the mails are carried overland to and from Great Britain. The transit period is limited to 632 hours from south European ports to Australia and to 644 hours from Australia to south European ports, with an allowance of 36 hours' extension on the European-bound passage during the period of the southwest monsoon.

The contract calls for four vessels with 2,000 tons of refrigerated space at 40 cubic feet to the ton.⁵ All mail ships are to carry a special chamber for the conveyance of butter if 300 tons of butter are offered, and no cheese or odorous articles may be carried in this chamber. The space reserved for butter is to have a temperature of 15° F. when four days out at sea, and the carrier may refuse to accept butter for shipment if more than 8° above this temperature when tendered. The Orient Line agrees not to charge or receive for butter or fruit any higher rates of freight than the current ruling freight rates on other lines for the same commodities, unless written consent to do so is first received from the Postmaster General. The contracting company agrees to make at least three calls at Hobart, Tasmania, during February and May.

The contract specifies also that inspection and classification of the vessels according to Board of Trade regulations of the Imperial Government shall be acceptable to the Commonwealth Government. This provision will exempt the contractor from numerous regulations relating to the operation of vessels in the Australian trade.

REDUCTION OF CONTRACT COSTS

In 1928 representations were made to the Orient Steam Navigation Co. by the director of the Australian postal services to induce the company to forego the revenue it obtained from carrying mail on its noncontract vessels and to permit them to be recognized as operating under the contract. The company agreed to this. The Australian postal administration benefited by £30,000.

A news dispatch published in *The Argus* of July 17, 1931, stated that the Orient Steam Navigation Co. had decided to reduce the amount due from the Australian Government under contract conditions by £20,000 for the year 1931-32. The company was quoted as making this contribution "in association with the Government's action to restore the nation's credit."

Another indirect benefit gained by Australia in connection with this contract is through the inclusion of other than contract vessels owned by the Orient Steam Navigation Co. within the mail-carrying conditions of the contract. This was brought about in 1928 in the following manner: The contract provides for 13 sailings annually. On each trip from England to Australia the British post office and other postal administrations send mail matter to Australia on contract vessels and pay the Australian Postal Department at Postal Union rates. On the return trip the Australian post office sends its mails without further charge under the terms of the contract, and also collects mail matter from other administrations (Ceylon, Egypt, etc.) which is carried to Europe at Postal Union rates payable to the

⁵ Commonwealth Parliamentary Paper No. 110, 1920-21.

Australian Post Office Department. Australia pays the British post office in like manner for Australian mails carried on the Peninsular & Oriental vessels under the British contract to the Far East. The sailings of the contract steamers of the two companies do not always offer weekly service, and mail sent on other than contract vessels is paid for on a weight basis.

SUBSIDIES ON FIXED-PAYMENT BASIS

The present postal-contract system of Australia covers 69 distinct routes; of these only 12 are on a fixed-payment basis, the remainder being paid on weight at Postal Union rates or the amount is not shown. The 12 routes which were operating on a fixed-payment basis as of April 1, 1929, were:

TABLE 94.—POSTAL CONTRACT SYSTEM OF AUSTRALIA ON FIXED-PAYMENT BASIS AS OF APRIL 1, 1929

Route	Life of contract	Annual payment	
		Sterling	Equiva- lent in United States currency ¹
Cairns to Cooktown via Port Douglas.....	From Jan. 1, 1928, for three years....	£2, 350	\$11, 436
Port Adelaide to Kingscote.....	To Dec. 31, 1931.....	1, 000	4, 867
Port Adelaide to Port Lincoln.....	do.....	3, 500	17, 033
Fremantle to Derby.....	} Indefinite period.....	5, 500	26, 785
Fremantle to Darwin.....			
Melbourne to Launceston.....	} From May 1, 1921, for 12-month periods, terminable on 12 months' notice by either party.	31, 000	150, 860
Melbourne to Burnie.....			
Hobart to Kelly's Point via Pearson's Point.....	From Jan. 1, 1928, for three years....	63	307
Hobart to Alonnah.....	do.....	75	365
Launceston to Furneaux Group of Islands.....	do.....	375	1, 825
Launceston to Currie, King Island.....	do.....	400	1, 947
Brisbane, Sydney, Melbourne, Adelaide, and Fremantle to London, via Suez.....	From Sept. 20, 1921, terminable on 12 months' notice by either party.	130, 000	632, 645
Total.....		174, 263	838, 050

¹ Converted at the par rate of \$4.8665.

As indicated in Table 94, the fixed-payment postal-contract system of the Commonwealth Government comprises principally local or interstate services in the Australian Commonwealth. The single important exception to this is the contract with the Orient Steam Navigation Co., controlled by the Peninsular & Oriental Co. through majority stock ownership. The Orient Line maintains the Australian service with a fleet which includes five 20,000-ton vessels capable of about 20 knots speed and built for the service, the fifth vessel having entered the run late in 1929.

American Trade Commissioner S. R. Peabody, Melbourne, reported under date of April 15, 1930, that a regular fortnightly steamship service between Sydney and Hobart during the winter months was assured through the provision, by the Federal Government, of a subsidy of £10,000 (\$48,665) to be paid to a leading Australian shipping company.

TOTAL MAIL-SUBSIDY PAYMENTS

The annual amounts of mail subsidies paid by the Australian Government from 1901 to 1929 were as follows:

TABLE 95.—MAIL-CONTRACT SUBSIDIES PAID BY AUSTRALIAN GOVERNMENT, 1901-1929

Year	Annual expenditures		Year	Annual expenditures	
	Sterling	Equivalent in United States currency ¹		Sterling	Equivalent in United States currency ¹
1901.....	£134, 332	\$653, 727	1917.....	£75, 652	\$368, 160
1902.....	169, 617	825, 441	1918.....	59, 596	290, 124
1903.....	172, 497	839, 457	1919.....	50, 035	243, 495
1904.....	163, 622	796, 266	1920.....	157, 813	768, 000
1905.....	171, 294	833, 600	1921.....	149, 064	725, 420
1906.....	199, 463	970, 687	1922.....	184, 770	899, 183
1907.....	198, 475	965, 879	1923.....	197, 652	961, 873
1908.....	215, 609	1, 049, 261	1924.....	193, 091	839, 677
1909.....	164, 623	801, 138	1925.....	177, 713	864, 440
1910.....	249, 552	1, 214, 445	1926.....	150, 375	731, 840
1911.....	235, 603	1, 146, 562	1927.....	173, 839	845, 987
1912.....	222, 578	1, 083, 176	1928.....	172, 613	840, 020
1913.....	222, 837	1, 084, 436	1929.....	174, 263	848, 050
1914.....	221, 221	1, 076, 572	Total.....	4, 983, 643	24, 252, 996
1915.....	220, 741	1, 074, 236			
1916.....	105, 103	511, 484			

¹ Converted at the par rate of \$4.8665.

Source: Australian Yearbook.

NAVIGATION ACT OF 1912-1920

Australia's navigation act was passed in 1912 following consideration of such a measure from 1904 in Australia and by an imperial shipping conference at London in 1907. Royal assent was given in October, 1913, but owing to the outbreak of the war in August, 1914, proclamation of the act was postponed.

At the conclusion of the war the act was placed in effect gradually in conformity with amending acts of 1919 and 1920. Its most important provisions—those relating to the coasting trade—were announced on July 1 and October 1, 1921, March 1, 1922, and February 1, March 1, and October 1, 1923. The act is administered by the navigation branch of the Department of Trade.

The Commonwealth act deals, and can deal, only with interstate and foreign shipping; intrastate shipping is subject to State laws.

RESERVATION OF THE COASTING TRADE

Australia, with its long coast line, greater in length than the distance between Sydney and London, small population, numerous small ports, seasonal trade, and extensive maritime and industrial legislation, Imperial, Federal, and State, presents a problem of very great magnitude in the establishment of regular and efficient coastal transport services. The coastal clauses of the navigation act, 1912-1920, were intended to create an Australian merchant marine by providing that no passengers or freight should be carried in coastal waters by vessels whose crews were not paid, or given other con-

siderations, in accordance with Australian regulations. Further, no vessels receiving subsidies from foreign governments are eligible to trade in the coastal waters.

These clauses apply to all ships registered in Australia and to all ships, whether registered there or not, which are engaged in the coasting trade of Australia. They impose certain requirements as to working and living conditions of crews on vessels and prescribe manning scales and wage scales. These conditions make it difficult for Australian vessels to compete with other ships in the overseas trades, and make it commercially impossible for ships trading to and from Australia to engage in the coastal trade.

LICENSE REQUIREMENTS

Except in special instances, and on special permit issued to ships to make particular voyages, no ship may engage in the Australian coasting trade without a license to do so. Licenses are issued subject to compliance with the following conditions:⁶

(a) That the seamen employed on the ship shall be paid wages in accordance with this part [coastal] of this act;

(b) That in the case of a foreign ship, it shall be provided with the same number of officers and seamen, and with the same accommodations for them, as would be required if it were a British ship registered in Australia or engaged in the coasting trade;

(c) That where a library is provided for the use of passengers every seaman and apprentice shall—where no library for their special use is provided—be entitled to obtain books therefrom under the same conditions as may regulate the issue of such books to the passengers.

Before granting a license the Minister for Trade and Customs may require security for compliance with these conditions. Moreover (sec. 289), in the case of ships trading to places beyond Australia, but which may in part engage in the coasting trade, the wages to which seamen are entitled under the rates ruling in Australia for seamen employed in the coasting trade must be paid before the departure of the ship from Australia.

INQUIRY INTO COASTAL CLAUSES OF ACT

Due to the many conflicting interests which arose as a result of the application of the coastal clauses of the navigation act as affecting communities, shippers, and shipping services, the Commonwealth Government considered requests for their repeal or revision. Under the general principle of protection to home industries the entire problem was referred to the Tariff Board for study. The scope and purpose of the inquiry were thus stated by that board:

Under date of January 4, 1929, the Minister for Trade and Customs referred to the Tariff Board for inquiry and report in accordance with section 15(2) (d) of the tariff board act, 1921-1924, the question of the practicability and desirability of encouraging the primary and secondary industries of the Commonwealth (including the industry of shipping) by substituting for the protection to Australian shipping against competition from overseas shipping in the Australian coastal trade at present afforded by Part VI of the navigation act, 1912-

⁶ Navigation act, 1912-1920, sec. 288.

1920 (commonly known as the coasting trade provisions of that act), protection by other means, for example:

- (a) By the imposition of taxation on cargo and/or passengers carried interstate by overseas vessels; or
- (b) By the payment of subsidy or bounty to Australian shipping; or
- (c) By the licensing of overseas vessels to engage in Australian coastal trade subject to the payment of license fees on a basis to be prescribed; or
- (d) By a combination of any of the above means; or
- (e) By any other means.

For the purpose of its investigation the board visited each State of the Commonwealth. In addition to the examination of witnesses, the board sought to inform its mind on the subject by independent inquiry. The investigation involved a comprehensive review of the financial position of the various shipping companies and organizations concerned.

In this review the board was assisted by the result of an exhaustive accountancy investigation conducted by a certificated accountant who was placed at the disposal of the board by the Comptroller General of Customs.

EFFECT OF COASTAL CLAUSES

Preceding a detailed review of the evidence presented and considered the board summed up the effect of the coastal clauses of the navigation act as follows:

The coastal clauses of the navigation act were brought into being after exhaustive investigation extending over a number of years. The object of the clauses is to protect Australian shipping on the Australian coast by making it obligatory upon overseas vessels desirous of entering such trade to comply with Australian standards in regard to such matters as manning, accommodation for crews, wages, hours of labor, and thus be on an equal footing with the Australian ships. The provisions of the act have effectively achieved their purpose, and the Australian coast is, under their operation, reserved to Australian shipping, except in isolated cases, where, in pursuance of the act, permits and exemptions have been granted to overseas vessels.

SCOPE OF BOARD'S INVESTIGATION

The terms of the minister's reference suggest the existence of disabilities to Australian industries, primary and secondary, due to the operation of the coastal clauses of the navigation act, and indicate a desire on the part of the Commonwealth Government to remove or reduce such disabilities. The wording of the reference also concedes the necessity for, and desirability of, continuing the protection of Australian interstate shipping by some effective means.

It is also apparent from the reference that the expected method of relief is to open up Australian coastal shipping trade to overseas vessels and at the same time protect the existing interstate services by a tax on the overseas shipping or by some means recompensing the interstate steamship companies for any trade they might lose as the result of competition from the overseas vessels.

The inquiry narrows itself down to the question whether there are any disabilities and whether, if they do exist, the repeal of the coastal clauses of the navigation act and the substitution of another form of protection to interstate shipping would remove such disabilities without creating other equal or greater disabilities. Any action in the direction of altering the existing policy would clearly not be desirable unless it achieved this result.

The scope of the Tariff Board's inquiry really resolves itself into investigating and determining the following:

- (a) Whether the existing interstate services are efficient and adequate, having regard to all the circumstances under which they are carried on.
- (b) Have the Australian shipping companies taken undue advantage of the protection afforded them, either by failing to cater adequately for the requirements or by charging unduly high freights or fares?
- (c) What would be the effect on existing services if overseas vessels were permitted to engage in the Australian coastal trade?

COST OF MEETING LAW'S REQUIREMENTS

In the course of its inquiry the Tariff Board sought to ascertain the cost to the Australian shipping companies of complying with the conditions imposed by the act. The position is complicated in that the navigation act and the arbitration court each has an influence upon it and it is difficult to determine to what extent the added costs are due to each of the causes considered. The report states:

The navigation act sets out the conditions of accommodation, manning, and victualling. The arbitration court requires local shipowners to pay certain wages and observe certain hours. The whole aim is to bring the conditions of employment of the Australian seaman into line with the accepted Australian standard of living. Maintenance of these conditions has been very costly and has placed a heavy burden upon those who engage in local shipping as compared with overseas shipping.

The additional costs may be grouped under two headings, namely:

1. The cost of altering vessels constructed prior to the operation of the navigation act in order to make them comply with the conditions of that act;
2. The extra cost due to wages and conditions.

Cost of vessel alterations

In respect to cost of altering accommodations of vessels and the additional equipment required under the navigation act the Tariff Board stated:

The total cost of the alteration of the ships belonging to companies comprised in the Australian Steamship Owners Federation is estimated to have been from £110,000 to £150,000 (\$535,000 to \$730,000).

The board has, however, obtained specific information as to the actual cost of alterations to 13 vessels, including the installation of electric equipment on colliers, and the initial expenditure under the loading and unloading regulations. The total amount involved was £32,773 (\$158,490). The alterations made to these vessels in order to comply with requirements reduced their passenger accommodations and cargo-carrying capacities to such an extent as to diminish their earning capacity by £12,114 (\$58,950) per annum.

The board desires to point out that it is in no way questioning the reasonableness or otherwise of the requirements of the act which made necessary the structural alterations. The figures are given merely to indicate the expenditure incurred of necessity by vessels on the Australian register, and from which overseas boats were free.

Cost of crews

Under the general head of costs of manning vessels under Australian registry as compared with similar costs for vessels under the registry of various other countries the Tariff Board cited comparative manning requirements of vessel types and nationalities in detail. The board's report sums up its findings on this subject in the following language:

Since the closing of the inquiry, the board has been supplied with a copy of the wages sheet of the steamship *Fordsdale* after the date of transfer from the Australian to the British register. This statement shows a total complement of 65, with an aggregate monthly wages account of £768. Under Australian articles the officers and crew numbered 74, with a total monthly wages account of £1,327.

Asiatic seamen are extensively employed on British ships trading with Australia. Typical examples of the wages paid in these instances are as follows:

TABLE 96.—WAGES PAID SEAMEN OF DIFFERENT NATIONALITIES

Rating	Wages per month		
	Lascars	Malays	Chinese
	£ s. d.	£ s. d.	£ s. d.
Sailor.....	1 17 6	2 9 0	2 6 0
Deck sweeper.....	1 13 0	-----	2 2 0
Fireman.....	1 14 6	-----	2 6 0
Second cook.....	3 0 0	3 5 4	4 19 0

While the remuneration paid to the more responsible officers and members of the crew on American vessels is higher than that of any other nationality, the Australian rates for the majority of ratings such as seamen, firemen, and trimmers are higher than those of any other country. The average Australian rate is also much higher than those of other countries, approaching a figure nearly double that of the British rate.

Not only does the Australia wage show a substantial increase over those of other countries, but the number of officers and crew employed in manning a vessel on the Australian register is also in excess of the requirements of other nations, averaging about 10 more than either the American or the British, and representing an increase in the manning of from 25 to 30 per cent. The cost of victualling is greater per head on the Australian coast than in any other part of the world, and the aggregate cost is, of course, further increased by reason of the additional hands employed.

TARIFF BOARD'S FINDINGS

Upon completion of its discussion of the evidence considered by it the Tariff Board stated its findings as follows:

As a result of its investigation the Tariff Board finds that, excepting only as to the lack of facilities for passenger service between the eastern ports of the mainland and Hobart, no disability was brought under the notice of the board which could be deemed to be of national importance. The disabilities under which the State of Tasmania is suffering call for prompt and effective remedy. The proposals of the board in this connection are set out in full on pages 46 and 47 of this report.

In regard to the main questions referred, the Tariff Board is strongly of opinion that the substitution of any other form of protection for that provided by the coastal clauses of the navigation act is neither practicable nor desirable.

ADMISSION OF OVERSEAS VESSELS TO COASTING TRADE

The proposals referred to in the Tariff Board's findings were prepared and presented to the board on May 6, 1929, by Lewis Findlay East, secretary, Marine Branch, Department of Trade and Customs. The salient features of this plan are as follows:

Tax on engagement of unlicensed ships in coasting trade:

- (a) *Passenger tax*.—A fixed charge of so much per passenger, per 100 miles of distance covered, carried by an unlicensed ship between ports in the Commonwealth.
- (b) *Cargo tax*.—A fixed charge of so much per ton of cargo (by measurement or weight, according to basis on which freight is charged) per 100 miles of distance covered, carried by an unlicensed ship between ports in the Commonwealth.

Bounty to licensed shipping:

- (a) *Passenger bounty.*—The proceeds of the above passenger tax (less a small percentage deduction to cover cost of administration, i. e., collection, checking, distribution, etc.) to be divided periodically among owners of passenger ships licensed to engage in the coasting trade, in proportion to the certified passenger accommodation vacant on those ships per 100 miles traveled between ports in the Commonwealth during the period covered.
- (b) *Cargo bounty.*—The proceeds of the above cargo tax (less a percentage deduction for administration) to be divided periodically among owners of general cargo or cargo-passenger steamers, over 1,000 tons gross register, licensed to engage in the coasting trade, in proportion to the cargo space vacant (computed on the basis of a shipping ton of 40 cubic feet) on those ships per 100 miles traveled on voyages between ports in the Commonwealth during the period covered.

Provided that bounty shall be payable, in respect of any voyage between Commonwealth ports of call, on only that amount of passenger accommodation or cargo space vacant which exceeds a certain prescribed percentage of the total accommodation or space provided on the ship. The percentage fixed to be, as nearly as can be arrived at, the average normal space vacant, over a year, on all ships now trading on the coast under present conditions.

Under this plan a voyage of less than 100 miles would be counted as 100 miles. Where a voyage exceeds 100 miles or any multiple thereof, the excess, if of 50 miles or more, would be counted as 100 miles and any excess under 50 miles disregarded.

AUSTRIA AND HUNGARY

AUSTRIA-HUNGARY

The small seacoast of the Austro-Hungarian Empire, with only two important ports, was the scene of a most comprehensive and generous system of ship subsidies and allied governmental aids to merchant shipping. This seacoast was remote from the principal agricultural, mineral, and industrial sections of the Empire. The greater part of the foreign trade of Austria and Hungary was with Germany, Russia, and the Balkans, to which river and rail lines served commerce. For much of the overseas trade Hamburg and Bremen were more convenient ports than Trieste and Fiume. There were practically no sailing vessels with the accompanying general service and national seagoing personnel. The coastwise trade was restricted to vessels of national registry.

Maritime enterprise in Austria-Hungary was extinguished by the World War, following which the Austro-Hungarian Empire lost its entire seacoast and fleet. Austria and Hungary were not maritime nations by tradition nor by the habits and pursuits of the people; the creation of both the commercial and the military fleet rested largely upon governmental stimulus; and their present-day return to the sea is limited to artificial creation.

Trieste on the western side of the Istrian Peninsula and Fiume on the eastern were respectively Austria's and Hungary's seaports on the Adriatic. Trieste was joined to Italy as a prize of war, and Fiume was annexed to Italy under the terms of a treaty with Yugoslavia of January 27, 1924.

The treaty of St. Germain required Austria and Hungary to surrender all their commercial shipping tonnage and all fishing vessels without regard to size. The most important shipping company, the Austrian Lloyd, became the Lloyd Triestino, now the principal subsidized service into the Adriatic under the Italian flag.

Among the reasons for including Austria and Hungary in this study are (1) that due to the length of time subsidies were granted to shipping by the Austrian State and to the wide scope of subsidies employed no historic account of shipping subsidies would be complete without an account of State aid in the dual monarchy, and (2) that recent proposals to establish a State-aided Hungarian fleet, based upon Fiume, have again raised the interesting problem of a landlocked nation (river outlet excepted) attempting to go to sea artificially.

THE AUSTRO-HUNGARIAN COMMERCIAL FLEET

At the end of 1913 the commercial fleet of Austria comprised 175 seagoing vessels of 443,086 gross tons.¹ Of this total, the Austrian-

¹ Osterreichisches Statistisches Handbuch, 1914, p. 181.

Lloyd was credited with 61 vessels of 235,990 gross tons, which during 1913 had performed 1,188 voyages and sailed 2,432,727 miles. The Hungarian seagoing fleet in 1914 comprised 70 steam vessels of 136,107 net tons.² Of the total tonnage, the Royal Hungarian Ocean Navigation Co. "Adria" owned 33 vessels of 73,762 gross tons. In 1913 this company carried nearly a million tons of cargo, incurred an operating deficit of 1,261,000 korona (\$255,983),³ and paid a dividend of 15 per cent, or 1,500,000 korona (\$304,500), from a profit of 1,839,920 korona (\$373,504), resulting from a subsidy of 3,101,467 korona (\$629,598). This tonnage (or the remainder thereof) and these companies are now part of the Italian navigation system.

PREFERENCES AND RESTRICTIONS

PREFERENTIAL RAILWAY RATES

In the late seventies and early eighties of last century two national economic problems took definite shape in Austria-Hungary and exerted a powerful influence upon the entire policy governing a State-aided power-driven fleet. The first of these was the diversion of interior German trade with Asia from the ports of Hamburg and Bremen to the ports of Fiume, Hungary, and Trieste, Austria, by means of low railroad rates; and, second, the problem of opening a foreign market for a rapidly increasing surplus of domestic products. Negotiations with various railroads led to a reduction in rates and the diversion of cargo through the Austro-Hungarian ports.⁴ National steamer lines had previously been subsidized, but the effort to divert cargo to the southern ports and to continue the line of delivery in national vessels paralleled the German Levant, German Africa, and North German Lloyd Lines in the Pan-German drive to eastern markets, in which the Austro-Hungarian lines became the national competitive trade vehicle.

EXEMPTION FROM FISCAL CHARGES

IMPORT DUTIES

In addition to the natural stimulation of cargo movement through the ports of Fiume and Trieste resulting from favorable railroad rates, several other public concessions were granted to the Austro-Hungarian shipping companies. By a law of March 30, 1873, all shipbuilding materials for construction, repair, or alteration of vessels were exempted from import duties. Foreign-built vessels were also admitted free.

INCOME AND TRADE TAXES

By a law of June 19, 1890, Austrian shipping companies were exempted from the payment of income and trade taxes on all iron or steel vessels engaged in ocean voyages. Beginning with January 1,

² *Annuaire Statistique Hongrois*, 189.

³ Unless specifically stated otherwise, the rate of \$0.203 has been used for converting both the Austrian krone and the Hungarian korona to United States currency throughout this section. Actual par was \$0.2026.

⁴ Report of Consul A. M. Thayer, Trieste, Jan. 24, 1882, in *American Consular Reports* Nos. 15-18, January-April, 1882, vol. 5, p. 540.

1894, ocean-going vessels were exempted from such taxes for a 5-year period thereafter and new vessels for a 5-year period from date of registry. In 1899 this exemption was prolonged for five more years. Hungarian vessels were exempted from income taxes for 10 years by a law of June 30, 1893.

DUES AND LOANS

Both reimbursement of Suez Canal dues and loans were granted to the subsidized Austrian Lloyd in connection with the eastern services; and on July 4, 1892, a contract was concluded for services between points on the Danube River by which the Danube Steamship Co. received not only subsidies but loans of approximately 7,000,000 kronen (\$1,420,000) between 1891 and 1906, which were repayable without interest.

AUSTRIA

AUSTRIAN CONTRACT SERVICES

AUSTRIAN LLOYD STEAMSHIP CO.

The Austrian State guaranteed the interest in connection with the organization of the Austrian Lloyd, which was founded as a marine department of the Triester Lloyd in 1836. The original capital was 2,000,000 kronen (\$406,000), which was increased to 6,000,000 kronen (\$1,218,000), and in 1845 the State assumed general supervision of the affairs of the company in connection with the increase of capital and guaranty of interest.

BEGINNING OF CONTRACT SYSTEM

In 1851 the first formal mail contract was concluded between the Austrian Lloyd and the Austrian Government. In 1855 the company received its first subvention of 2,000,000 kronen (\$406,000) and in 1858 its first mileage subvention.

After the conclusion of the first agreement with Hungary the Lloyd assumed the name, Austro-Hungarian Lloyd. From 1872 until June 30, 1888, the company had an agreement with both Austria and Hungary with respect to services in the Adriatic and Mediterranean in addition to a separate agreement with Austria regarding services in the overseas trade.

In 1888 the Austrian Lloyd concluded a new agreement with both countries, whereby the company undertook, for a small increase in the subvention, extensive additional services. This agreement was superseded by the contract of July 25, 1891, which was made with the Austrian Government alone. After that time the Austrian Lloyd was a purely Austrian enterprise. The Austrian Lloyd and the Adria, a Hungarian company, made a division of the traffic, so that the Lloyd received the services in the Levant and in Indo-China and the Adria the lines to the west, while the line to Brazil was to be operated by the two companies jointly.

CONTRACT OF JULY 25, 1891

Mileage rates.—The contract of July 25, 1891, provided for the operation of 19 mail lines—6 in the Adriatic, 7 in the Mediterranean, 2 in the Black Sea, 3 to India and China, and 1 to Brazil. Subven-

tions, to be paid on a mileage basis, varied not only with the distance covered but with the speed of the boat and the character of the route. Subventions for routes in the Mediterranean ranged from 1.80 to 3.55 florins* (\$0.73 to \$1.44) per mile, and on the routes to India and China and Brazil from 1.70 to 2.80 florins (\$0.69 to \$1.14). The total annual subvention might not, however, exceed 2,910,000 florins (\$1,181,460) in any one year.

Government loans.—This contract also called for the reimbursement by the Government of the Suez Canal dues paid by this company. In addition, the State was to advance the company 1,500,000 florins (\$609,000) for new construction. This advance was to be made in equal amounts on September 1, 1891, January 2, 1892, and January 2, 1893; and to be repaid, without interest, by the company in five yearly installments of 300,000 florins (\$121,800), beginning January 2, 1902.

The company carried the letter and parcel mails free, placed its vessels at the disposal of the Government, permitted the State to nominate three representatives on the board of directors (the president of the board to be appointed by the Emperor and the other two members by the Minister of Commerce), filed all tariffs with the Minister of Commerce, and agreed to use 20,000 tons of Austrian coal annually.

Reimbursement of Suez Canal dues.—The policy of making a reimbursement to ships under the Austrian flag of the Suez Canal dues paid by them was instituted by the mail contract of the Austrian Lloyd Steamship Co. approved July 25, 1891. The Austrian Government expended in reimbursement of these dues: In 1901, 1,980,700 kronen (\$402,080); in 1902, 1,980,700 kronen (\$402,080); in 1903, 1,948,700 kronen (\$395,585); in 1904, 1,948,700 kronen (\$395,585); in 1905, 2,052,540 kronen (\$416,665); in 1906, 2,103,840 kronen (\$427,080); in 1907, 2,103,840 kronen (\$427,080); in 1908, 2,426,100 kronen (\$492,500); in 1909, 2,277,300 kronen (\$462,300); in 1910, 2,426,100 kronen (\$492,500).

CONTRACT OF MARCH 16, 1907

On March 16, 1907, a new contract was concluded between the Austrian Government and the Austrian Lloyd which in most essentials was similar to the contract of July 25, 1891, in respect of Government supervision and bounty rates. The financial provisions included increase of capital to 28,800,000 kronen (\$5,846,400), establishment of reserve and depreciation funds, and the participation of the State in a third of the net earnings in excess of 6 per cent.

The Government agreed to advance the company 100 kronen (\$20.30) for each ton of new vessels placed in service during the first five years of the contract, but not to exceed 1,200,000 kronen (\$243,600) in any one year. Such advances were to be repaid in five annual installments during the last five years of the contract. Moreover, it was stipulated that at least 120,000 gross tons of new vessels were to be placed in service during the first 12 years of the contract.

* The florin was Austria's monetary unit from 1857 to 1892. The silver florin had a par value of about \$0.406.

On October 15, 1909, the Austrian Lloyd concluded an agreement with the Government for a service to Dalmatia and Albania under somewhat similar conditions as the principal contract.

Effect of subventions on the Austrian Lloyd.—The operations of the Austrian Lloyd resulted in profits when the subsidies, which averaged upwards of 10,000,000 kronen (\$2,000,000) annually, were included in the operating revenue.⁶ Dividends of 6 per cent were declared in 1909 and were increased steadily to 7.5 per cent in 1913, the last complete year before the World War. Operations, however, were restricted to subsidized lines only, no tonnage being employed in the general market.

AUSTRIAN STEAMSHIP CO. OF DALMATIA

On December 15, 1910, a contract was concluded with the Austrian Steamship Co., of Dalmatia, for both liner services and postal services in near-by trades. The liner service was subsidized at 1,000,000 kronen (\$203,000) annually and the postal services for 140,000 kronen (\$28,420) annually. The contract called for new construction of small vessels and included the usual provisions in respect of the Government's interest.

DANUBE STEAMSHIP CO.

In view of the importance of navigation on the Danube a subsidized service was inaugurated by the Danube Steamship Co. on July 4, 1892. The contract was for 10 years for extensions of its regular passenger services; the subvention, 500,000 kronen (\$101,500), which, under annual renewals, was reduced to 300,000 kronen (\$60,900) between 1903 and 1905 and increased to 1,200,000 kronen (\$243,600) by 1911. In 1912 the contract was renewed for 25 years for an annual subsidy of 1,300,000 kronen (\$263,900). The usual Government privileges and restrictions were included in the contract. The company was required to place in service two fast steamers of a speed of 23 knots and a passenger capacity of 1,000 persons.

In 1895 the Danube Steamship Co. concluded a 20-year contract with Bosnia-Herzegovina, whereby the company acquired all the vessels and equipment owned by the provincial government and in return agreed to operate a regular service on the River Save exclusively for agricultural products.

In 1906 a contract was concluded with the Hungarian Government in accordance with which the Danube Steamship Co. agreed to operate a local service in Budapest.

AUSTRIAN BOUNTY SYSTEM

Under the designations "trade," "depreciation," and "maintenance" bounties Austria granted to vessels bounties according to certain age, size, and employment groups. In other words, these were bounties based upon the character of the vessel rather than upon its work.

TRADE AND DEPRECIATION BOUNTIES

Trade bounties.—The law of December 27, 1893, gave to iron and steel steamers employed in the long coasting or overseas trades,

⁶ Oesterreichisches Statistisches Handbuch, 1914, p. 182.

which were two-thirds Austrian owned, of recognized classification, and less than 15 years old, bounties of 6 florins (\$2.44) per net ton. These rates were increased by 10 per cent for vessels built in Austria following the passage of the law and increased 25 per cent if one-half of the materials used was of domestic origin. The rates were reduced 5 per cent for each year of age and ceased when vessels became 15 years old.

Depreciation bounties.—Vessels too old to receive trade bounties under the law of December 27, 1893, were granted a depreciation bounty of 1 florin (\$0.406) per net ton per year if under Austrian registry and 15 years old on July 1, 1893, and engaged in the long coasting or overseas trades. This form of bounty was provided for five years.

MAINTENANCE BOUNTIES

The so-called "maintenance" bounties of the law of February 23, 1907, were similar to the trade bounties, but this law modified the earlier enactment by requiring the vessels to be of not less than 400 gross tons and capable of a trial speed, half loaded, of 10 knots. Foreign-built vessels had to be registered within two years after launching. Added inducement to renew tonnage was provided in a sliding scale of bounties, from a maximum of 10 kronen (\$2.03) per gross ton per year for iron and steel steamships built in Austrian shipyards after July 1, 1907, to 7 kronen (\$1.42) per gross ton to other iron or steel steamships if registered before the end of 1910, and 6 kronen (\$1.22) after that date. These rates were decreased 5 per cent annually from the fourth to the ninth year and 10 per cent annually beginning with the tenth year.

Further reductions were made when vessels were laid up for more than six months on account of repairs or for more than three months for any other reason. To be entitled to maintenance bounties vessels were required to depart from an Austrian port on a commercial voyage at least once each year. This requirement was waived where vessels engaged in the indirect trades in the interests of Austrian trade.

Vessels obtaining maintenance bounties were to be held at the disposal of the State and to carry apprentices and cadets.

The duration of the maintenance-bounty provisions of the law was limited to December 31, 1916.

NAVIGATION BOUNTIES

Nonsubsidized vessels were entitled to general navigation bounties under both the law of December 27, 1893, and that of February 23, 1907. Under the 1893 enactment navigation bounties were granted to steamers and sailing vessels in the short coasting trade between Austrian ports at the rate of 5 kreutzers (2 cents) per net register ton per 100 miles sailed.

Under the law of February 23, 1907, the bounty rate of 2 cents per net ton for 100 miles sailed was retained, but in general the bounties were aimed at voyages beyond the short coasting trade. It was provided that vessels must carry cargo from or to a national port in the amount of at least one-third the net tonnage of the vessel, and

should be in the interest of national trade and commerce. The Government was granted power to modify or suppress entirely these bounties under given conditions.

The duration of the navigation-bounty provisions of the 1907 law was limited to December 31, 1916.

CONSTRUCTION BOUNTIES

Shipbuilding bounties were inaugurated in Austria-Hungary by the law of February 23, 1907. Hull bounties of 40 kronen (\$8.12) per gross ton were granted on iron and steel steamers; machinery, boilers, pipes, and auxiliaries were granted 8 kronen (\$1.62) per 100 kilos weight (220.46 pounds).

While the bounties were paid on a weight or measurement basis, they were dependent upon the use of 50 per cent of domestic materials on a value basis; the bounty was increased by 1 per cent for each 1 per cent of domestic materials used above the 50 per cent and reduced 1 per cent for each 1 per cent less than 50 per cent. Waivers of the 50 per cent clauses were authorized under certain conditions—lack or high cost or delay in delivery of domestic materials.

So far as it applied to construction bounties the law of February 23, 1907, set a definite objective and placed no time limit on the accomplishment of this objective. Section 11 provided that construction bounties should be granted to 270,000 tons of shipping at a rate not to exceed 25,000 gross tons annually; and according to article 20 the provision became effective on February 1, 1907, to remain in force until the proposed program of 270,000 gross tons had been completed.

This provision guarded against a glut of construction during a limited period, with its attendant increase in tonnage prices and renewal programs out of line with normal depreciation. If the annual maximum (25,000 gross tons) had been built, it would have taken about 11 years to complete the provisions of the law, and the law would have expired by limitation in 1918. The provisions were not fulfilled, for which reason the law still stands.

TOTAL BOUNTY AUTHORIZATIONS

Under the law covering navigation and maintenance bounties the following amounts were authorized: 4,300,000 kronen (\$872,900) for 1907; 4,400,000 kronen (\$893,200) for 1908; 4,700,000 kronen (\$954,100) for 1909; 5,000,000 kronen (\$1,015,000) for 1910; 5,600,000 kronen (\$1,136,800) for 1911; and 5,600,000 kronen (\$1,136,800) annually for the remaining period of the law until December 31, 1916; a total provision, therefore, of 52,000,000 kronen (\$10,556,000).

Provision for construction bounties was to be made annually in the budget. At a maximum allowance of 40 kronen (\$8.12) per gross ton for hull bounties to cover 270,000 gross tons, an expenditure of 11,800,000 kronen (\$2,395,400) was contemplated for the construction program, exclusive of the machinery construction bounties. The limit set for maintenance bounties was 18,000 gross tons annually.

PREFERENCES AND RESTRICTIONS

RESERVATION OF THE COASTING TRADE

The following is quoted from a report by Acting Commercial Attaché John A. Embry, Vienna, Austria, May 28, 1929:

There is no coasting trade in Austria. The following data refer exclusively to international waterway traffic on the Danube, which is the only navigable river flowing through Austria.

Traffic on the Danube is regulated by a number of international treaties as well as Austrian Federal and provincial laws. No restrictions of any kind are placed on ships of other nations passing through Austria. Trade on the Danube, including shipments from one Austrian Danube port to other Austrian ports, is equally free to all nations operating ships on the Danube; all traffic regulations are applied in an identical manner without regard to the flag of the ship.

An important portion of imports to and exports from Austrian ports on the Danube is handled by the Danube Steamship Co. under the Austrian flag. In 1927 total loadings in Austrian ports amounted to 309,356 tons, of which 193,629 tons, or 63 per cent, were handled by the Danube Co.; total unloadings amounted to 942,983 tons, of which 401,761 tons, or 43 per cent, were handled by this company. Figures for 1928 are not yet available.

HUNGARY

HUNGARIAN CONTRACT SERVICES

ROYAL HUNGARIAN OCEAN NAVIGATION CO. "ADRIA"

The principal steamship company operating under a postal-subsidy contract with the Hungarian Government was the Royal Hungarian Ocean Navigation Co. "Adria," popularly known as the Adria and now an Italian company. This company was established in 1882, and until 1891 it operated, in conjunction with the Austrian Lloyd, a number of services that were subsidized by both Austria and Hungary. Upon the termination of these agreements in 1891 the Adria company made a separate agreement with the Kingdom of Hungary, and since that time it has been a purely Hungarian enterprise, just as the Austrian Lloyd has since been purely an Austrian enterprise.

Under this contract the Adria Co. agreed to make a fixed number of round voyages yearly from Fiume to specified ports, as follows: Glasgow, Leith, or one other of the eastern ports in the United Kingdom, France, Spain, Portugal, the Netherlands, Brazil, Argentina, and Mediterranean ports.

The Adria Co. agreed to operate other vessels in various trades without subsidies, the most interesting provision being that upon the request of the Minister of Commerce the company should undertake without subvention any voyage for which three-fourths of the ship's loading capacity was assured.

The contract was for 20 years for an annual subsidy of 1,140,000 korona (\$231,420), and the company was exempted from the payment of consular fees. For additional services required under an agreement of 1900 the company was granted exemption from all taxation and fees until December 31, 1921. A service to North America was inaugurated for 300,000 korona (\$60,900) annually for six voyages. In 1911 and 1912 the contracts were modified and

increased until the company was operating services which were subsidized in the amount of 2,290,000 korona (\$464,870) annually.

The subsidies earned by the Adria Co. from 1886 to 1914 are shown in Table 97.

TABLE 97.—SUBSIDIES PAID TO ADRIA CO. BY HUNGARIAN GOVERNMENT, 1886-1914

Period or year	Annual subsidy		Period or year	Annual subsidy	
	Korona	Equivalent in United States currency ¹		Korona	Equivalent in United States currency ¹
1886-1890.....	\$ 554, 798	\$112, 624	1906-1910.....	\$ 1, 192, 000	\$241, 975
1891-1895.....	\$ 1, 036, 880	\$ 210, 467	1912.....	2, 010, 000	408, 030
1896-1900.....	\$ 1, 140, 000	\$231, 420	1913.....	3, 101, 467	629, 598
1901-1905.....	\$ 1, 140, 000	\$ 231, 420	1914.....	3, 104, 271	630, 167

¹ Converted at the rate of \$0.203 to the korona.

² Annual average for 5-year period.

Source: *Annuaire Statistique Hongrois*, 1914, p. 202.

HUNGARIAN-LEVANT STEAMSHIP CO.

The Hungarian-Levant Line began operations in 1897 with non-subsidized services between Marseille and Odessa. On May 1, 1898, a contract was concluded with the Hungarian Government for a service between Galatz and Levant ports, and in 1911 was extended under an additional agreement to include a line between Fiume and Australia. The subventions paid to this company from 1901 to 1914 are shown in Table 98.

TABLE 98.—SUBSIDIES PAID TO HUNGARIAN-LEVANT CO. BY HUNGARIAN GOVERNMENT, 1901-1914

Period or year	Annual subsidy		Period or year	Annual subsidy	
	Korona	Equivalent in United States currency ¹		Korona	Equivalent in United States currency ¹
1901-1905.....	\$ 203, 997	\$42, 426	1913.....	1, 664, 779	\$337, 950
1906-1910.....	\$ 305, 127	\$ 61, 941	1914.....	1, 241, 692	252, 063
1912.....	1, 005, 138	204, 043			

¹ Converted at the rate of \$0.203 to the korona.

² Annual average for 5-year period.

Source: *Annuaire Statistique Hongrois*, 1914, p. 202.

ROYAL HUNGARIAN RIVER & SEA NAVIGATION CO.

In 1895 the Royal Hungarian River & Sea Navigation Co. concluded a 20-year contract with the Hungarian Government for Danube River services. The annual payment of 800,000 korona (\$162,400) was to be set aside as a reserve, and, if the earnings of the company were insufficient to provide for 5 per cent dividends on the capital stock, the annual subsidy was to be increased by 100,000 korona (\$20,300). Deficits were to be paid out of the established

reserve until the fund was exhausted and then by means of advances by the State. The State was to be reimbursed from surplus earnings when earned.

The Government was to receive one-third of net earnings between 5 and 7 per cent and one-half of net earnings above 7 per cent. The Government retained the right to take over the company upon payment of twenty times the net average earnings in the best five out of seven preceding years.

In 1911 and 1912 the company was paid subsidies of 900,000 korona (\$182,700) annually. Information on subsidies for other years is not at hand.

HUNGARIAN-CROATIAN STEAMSHIP CO.

The Hungarian-Croatian Steamship Co. was established in 1891 with a capital of 6,000,000 korona (\$1,218,000). It operated some 40 small steamers in the Adriatic, based upon Fiume, and also between Fiume and Italy, these services being maintained under two contracts which were in force from January 1, 1902, to December 31, 1916. The operations of this company resulted in profits and dividends of 6 to 16 per cent annually, although the annual subsidies did not exceed \$125,000.

HUNGARIAN BOUNTY SYSTEM

Direct aid in the form of bounties was extended to shipping under the Hungarian flag for the first time by the law of June 30, 1893, which provided for two kinds of bounties, namely, purchase and mileage. These bounties were to be paid only on ships owned to the extent of at least two-thirds by Hungarian citizens. It was also provided that the total amount paid in any one year should not exceed 200,000 korona (\$40,600). The law also granted exemptions from taxation similar to those allowed under Austrian laws.

Purchase bounties.—Purchase bounties were paid on iron or steel vessels for a period of 15 years from their launching. Steamers were paid 9 korona (\$1.83) per net ton in the long coasting trade and 12 korona (\$2.44) in the overseas trades, reduced by 7 per cent annually after the first year.

Mileage bounties.—Mileage bounties were bounties of 5 filler (1 cent) per net ton for each 100 miles sailed by vessels engaged in the long coasting and overseas trades where no subsidized line was obliged to operate.

The subsidy law of June 30, 1893, was enacted for a period of 10 years, although under certain of its provisions the bounties might be paid for 15 years. The policy of granting bounties to "free" shipping continued. The amounts granted annually for bounties of this character were not large, as is indicated by the following statement, which shows the annual expenditures in the years 1901 to 1910: In 1901, 12,070 korona (\$2,450); in 1902, 11,480 korona (\$2,330); in 1903, 59,015 korona (\$11,980); in 1904, 31,650 korona (\$6,425); in 1905, 34,925 korona (\$7,090); in 1906, 70,715 korona (\$14,355); in 1907, 153,325 korona (\$31,125); in 1908, 263,865 korona (\$53,565); in 1909, 316,180 korona (\$64,185); in 1910, 367,170 korona (\$74,535).

Construction bounties.—Construction bounties on ships built in Hungarian yards were paid from January 1, 1896, and at the follow-

ing rates: Iron or steel hulls, 30 to 60 korona (\$6.09 to \$12.18) per net ton; wooden hulls, 10 to 25 korona (\$2.03 to \$5.08) per net ton; engines and machinery, 10 to 15 korona (\$2.03 to \$3.05) per ton of material; boilers and pipes, 6 to 10 korona (\$1.22 to \$2.03) per ton of material.

POSTWAR STATE AID TO SHIPPING

Since the World War the water-borne commerce of Austria and Hungary has been limited to river navigation. In Hungary, however, there was some revival of interest in State-aided ocean shipping during 1928 and 1929, based partly upon old laws still in existence and partly upon a new measure adopted early in 1929. Prior to the World War the Adria and the Levant Cos. received State aid for both liner and tramp services. The other principal companies were the Atlantica and the Ungaro-Croata, both of which received State aid for tramp shipping. The Cunard Co., operating from Fiume to New York, held the sole concession for the transport of emigrants.⁷

These Hungarian companies lost their tonnage, at least so far as its Hungarian nationality was concerned, and up to 1928 had received no indemnities for losses. The Adria is now an Italian company. The Atlantica Co. entered the banking business as a trust company. The Levant Co. formed a company under the Italian flag known as the Levanta Fiumana Societa de Navigazione, with its head office in Rome. All the shares of this company belong to the Hungarian-Levant Steamship Co., of Budapest, the old Hungarian company whose shares continued to be quoted on the Budapest Stock Exchange. The Hungarian company, owned by the Hungarian General Credit Bank, built a tramp ship of 7,500 tons in 1928, which was the only vessel sailing under the Hungarian flag.

PROPOSED SUBSIDY FOR TRAMP SHIPS

With only one Hungarian company and one Hungarian vessel as an active basis, the Hungarian Minister of Commerce submitted a bill to the Hungarian Parliament on October 19, 1928, proposing a subsidy to tramp ships. In the report on the bill the minister stated that as Hungary had lost both its merchant vessels and its seaport it had no interest in reviving the commerce of its former seaport, but did have an interest in taking part in world traffic. He considered that no Hungarian company could provide ships without Government aid; that the Government had no funds available with which to construct vessels or pay navigation bounties, and that indirect aids, principally in the way of tax exemption, would be the only aid extended by the Government.

PROVISIONS OF LAW OF 1929

Law No. 1 of 1929 provided for the total or partial exemption of shipping companies from corporation taxes and income taxes for the first 15 years of the life of a vessel, if new, and proportionally reduced this period according to the age of the vessel in entering serv-

⁷ Report of Vice Consul John H. Morgan, Budapest, Oct. 31, 1928.

ice under the benefits of the act. Half of the directors and the auditors must be Hungarians, as well as the president of the company. One midshipman, one mate, and one engineering apprentice must be carried. Aid is not granted to vessels more than 15 years old.

Following the passage of this act it was reported^a that the only Hungarian company, the Levant, had proposed a merger with the Cosulich Steamship Co., of Trieste, to furnish regular service from Fiume to the Near East, granting reduced rates on Hungarian cargoes against a State subsidy of 1,800,000 pengö (\$315,000 at the par rate of \$0.1749) over a period of 17 years.

A conference of representatives of trade, commerce, and agriculture declared against the new undertaking on the basis that the offered reductions in rates, 10 to 30 per cent, could be obtained in the charter market, and the Minister of Finance also is reported to have opposed the proposition. The same conference considered that a projected motor-barge transport scheme would be of greater utility in developing Hungarian trade in the Near East.

PREFERENCES AND RESTRICTIONS

RESERVATION OF THE COASTING TRADE

The following is quoted from a report submitted by Commercial Attaché William A. Hodgman, Budapest, Hungary, June 22, 1929:

In the matter of internal shipping traffic, within the boundaries of Hungary the question is most complex from the legal aspect and very simple from the practical point of view. The treaty of Trianon reserves the cabotage of all Allied and Associated Powers for their private exploitation, while ex-enemy powers must allow cabotage within their respective territories to the first-mentioned States. By the Danube act cabotage is reserved as a special privilege to all riparian States, ex-enemy included, but only where such services are regular and continuous. The specific provisions of the Danube statute on this subject are the following:

"Art. 22. On the international waterway of the Danube the transport of goods and passengers between the ports of separate riparian States as well as between the ports of the same state is unrestricted and open to all flags on a footing of perfect equality.

"Nevertheless, a regular service for passengers or for national or nationalized goods between the ports of one and the same state may only be carried out by a vessel under a foreign flag in accordance with the national laws and in agreement with the authorities of the riparian states concerned.

"Art. 22 (final protocol). (a) By the traffic referred to in the second paragraph of article 22 shall be understood any public service for the transport of passengers and goods organized under a foreign flag between the ports of one and the same State, when that service is carried on sufficiently regularly, uninterruptedly, and in volume sufficient to influence unfavorably, to the same extent as regular lines properly so called, the national interests of the State within which it is carried on."

In actual practice Hungary allows participation in its cabotage to shipping interests of other states on a basis of reciprocity. Thus ships and barges flying the flags of Austria can carry on traffic in Hungarian territory as they wish. The Austrian Erste Donau Dampschiffahrts Gesellschaft (D. D. S. G.) carries out a regular passenger and freight service through Hungary.

Yugoslavian and Rumanian ships are excluded from Hungarian cabotage, as Yugoslavia adheres to the treaty of Trianon, ignoring the Danube act, and will allow no cabotage by ships of other states either by regular or by casual

^a Report of Vice Consul John H. Morgan, Budapest, Mar. 12, 1929.

service, while Rumania expresses itself willing to abide by the Danube statute and allows casual cabotage where permission is obtained in advance.

Laws and government decrees relating to river navigation in Hungary are:

1. Act XIX of 1924, concerning the regulation of customs, and Order No. 92000, 1926, of the Royal Hungarian Ministry of Finance, putting the act into execution;
2. Government Order No. 1340 (Prime Minister) of February 15, 1924, concerning the control of shipping traffic;
3. Directions for the carriage of livestock and animal raw products, issued by the Ministries of Commerce and Agriculture in conjunction.

BELGIUM

ECONOMIC DEVELOPMENT AND SHIPPING

Belgium, with an area of less than 12,000 square miles, a seaboard of only 62 miles, and a merchant marine of less than 550,000 gross tons, has one of the three principal ports of continental Europe—Antwerp—and ranks among the first nations in world trade. This paradox of extensive and well-balanced sea-borne trade and relatively small merchant marine is in direct contrast to the situation in some other notable maritime nations, as, for example, Norway.

The country has large coal resources and is the center of a great metallurgical industry. Extension of the boundaries of Belgium to the east and northeast, through the addition of Eupen and Malmedy, and the withdrawal of Luxemburg from the German Customs Union have tended to strengthen the Belgian metallurgical industry. Shipyards at Hoboken for some years built ocean steamers, and since the war have turned out vessels of a high type for the line between Antwerp and the Belgian Congo.

Heavy industrial production and imports and exports of coal and raw materials continue to form a well-balanced volume of sea-borne cargo. Exports and imports in 1929 were 70,723,195 metric tons, of which 25,122,212 tons were discharged and 19,834,006 tons were embarked in Belgian ports. In 1930, 23,731,634 tons were discharged and 17,693,969 tons were embarked in Belgian ports. About 75 per cent of this traffic is through the port of Antwerp.

Administration of marine affairs in Belgium is the responsibility of the Ministry of Railways, Marine, Posts, Telegraphs and Telephones, and Aeronautics. It is the particular function of this ministry to promote national ports and shipping, to administer the navigation laws, nationalization and transfer of vessels in and out of Belgian registry, and to inspect and administer the public affairs of the fisheries and canals.

THE BELGIAN COMMERCIAL FLEET

The relatively small share of Belgium's sea-borne commerce which is carried in vessels of Belgian nationality is an interesting fact in international shipping. Numerous explanations have been advanced—the proximity of Belgium to England, France, and Germany, the shipping services offered at Antwerp by vessels of these and other nationalities, the industrial development of Belgium through foreign capital, etc. According to a German authority¹ other causes are the disinclination of the Belgian people to seafaring life and the pre-war subsidizing of German lines by Belgium in order

¹ Greve: Seeschiffahrts-Subventionen der Gegernwart, 1903, p. 21.

to draw transit trade to Antwerp. The last-suggested reason contributed largely to the development of the port of Antwerp and to the revenues of the Belgian railways, and provided Belgian importers and exporters with regular communications with remote trade regions of the world.

From an economic standpoint, the relative lack of Belgian ships in the sea trades undoubtedly rests upon the lack of commercial necessity for such national services. Antwerp is situated on the main sea routes of shipping lines beginning in the Baltic, North Sea, and British ports; it has great variety and quantity of cargo moving to the rest of the world. Lines starting their itineraries in these regions may therefore concentrate upon Antwerp for cargo with which to complete their loadings. Antwerp port authorities grant special concessions to new companies in the matter of port dues, which, in turn, encourages further concentration of tonnage at the port, and Belgian exporters and importers benefit to the full extent of the competition through the exceptionally low rates resulting therefrom.

It is with the resultant low ocean rates that private Belgian companies are obliged to compete. Establishment of national shipping services under these conditions carries great financial risk. Nevertheless, since the World War Belgian services have made considerable progress, there being 30 from Antwerp in 1929. National shipping services for colonial development are required only to the Belgian Congo in central Africa.

COMPETITIVE SHIPPING SERVICES

In support of the conclusion that the concentration of services at Antwerp is the principal reason for the slow development of Belgian national shipping a number of service conditions may be cited.

In 1930, as in previous years, vessel tonnage of British nationality held first place in entries at Antwerp with 32 per cent of the total; German vessels second, with 23 per cent; Dutch vessels third, with 8 per cent; French vessels fourth, with 7.6 per cent; and Belgian vessels fifth, with 6 per cent.

During 1929, 180 established shipping lines and 60 irregular lines used Antwerp as a port of call. British services predominated but German services are gaining, the latter being especially prominent in the Antwerp-River Plate and Central American trades.² Many services were run from Antwerp by French vessels, and also a large number of Dutch services.

In 1928 there were nine conference lines to South Africa and also a monthly service by a line outside the conference. Eight services to West Africa alone created intense competition. Several direct lines go from Antwerp to Syria. German lines reentered the Moroccan trade following negotiation of the Franco-German commercial treaty. There were 40 sailings per month from Antwerp to Brazil and the River Plate.

LLOYD ROYAL BELGE

By far the most active support accorded Belgian shipping by the Belgian Government is the association of the Government with the

² British Department of Overseas Trade report on Economic and Trade Conditions in Belgium in 1929, p. 97.

Lloyd Royal Belge, which on July 1, 1931, owned a fleet of 44 vessels of a total of 224,378 gross tons in ships of 100 gross tons and above.

The history of the company up to 1927 was covered by Assistant Trade Commissioner Leigh W. Hunt, Brussels, in a report made May 23, 1927, in which he stated:

The Lloyd was founded on June 26, 1916, with a capital of 50,000,000 francs. In addition to the capital, the Belgian Government was authorized by decree of July 19, 1916, to guarantee the interest payments and amortization on a bond issue of 100,000,000 francs, of which 25,000,000 francs was subscribed by the founders of the company in 1916 and 75,000,000 francs in 1921. The company was also authorized to issue mortgage bonds or other types of bonds.

At the time of foundation the company obtained 35 ships of 193,186 tons. Lines were operated out of Antwerp to North America, to South America, to British India, to Spain and Portugal, to the Near East and the Far East, and for the lumber trade to the Baltic.

FINANCIAL HISTORY OF COMPANY

In 1919 the company was enjoying a fair degree of prosperity, and the fleet consisted of 85 ships totaling 550,000 tons. Profits were realized during the first four years of operation as follows: 1917—gross profits, 12,165,185 francs; net profit, 4,582,357 francs; 1918—gross profits, 8,762,593 francs; net profit, 4,117,607 francs; 1919—gross profits, 22,332,963 francs; net profit, 9,589,240 francs; 1920—gross profits, 51,889,105 francs; net profit, 5,324,623 francs.

During this period the company was able to pay 6 per cent dividend on the 50,000,000 francs capital, in addition to meeting all obligations and creating a reserve fund and amortization fund.

In 1921, 1922, and 1923 the company suffered gross losses of 21,868,000 francs, 12,490,322 francs, and 61,399,792 francs, respectively. During this crisis the fleet was cut down and in 1923 consisted of 50 ships of 324,000 gross tons.

In view of the losses, the Government intervened and the company was reorganized. The 50,000,000 francs capital in 50,000 shares was replaced by 50,000 shares without face value. The Government took over the bonds outstanding (23,914,000 francs of the 1916 issue and 74,274,000 francs of the 1921 issue). The new capital of the Lloyd was fixed at 153,000,000 francs, as follows: (1) 80,000 shares preferred stock, 500 francs each, series A, 40,000,000 francs; (2) 70,000 shares preferred stock, 500 francs each, series B, 35,000,000 francs; (3) 116,000 shares common stock, 500 francs each, series A, 58,000,000 francs; (4) 40,000 shares common stock, 500 francs each, series B, 20,000,000 francs; in all, 153,000,000 francs.

Series A of both the preferred and common stock was allotted to the Government in return for the servicing of the bonds of the Lloyd. The series B of both preferred and common stock was subscribed by a financial group.

In 1924 and 1925 the company continued to lose money (1,421,507 and 154,180,691 francs, respectively), the 1925 loss being amortized by absorption of the capital and the legal reserve. The year 1926 ended with a profit of 2,982,271 francs. However, the Lloyd's fleet had been reduced to 18 ships of 136,703 tons, on which 86,000,000 francs of mortgage bonds was still outstanding.

The Lloyd in 1927 operated three lines—Antwerp-New York, Antwerp-Argentina and Uruguay, and Antwerp-Brazil. As the company paid salaries amounting to 25,000,000 francs to Belgian labor and bought 11,000,000 francs worth of supplies in the country in 1925, it has a certain importance in Belgian economic life. Revenue from freight in 1925 amounted to 200,000,000 francs.

REORGANIZATION OF 1927

A reorganization was effected in 1927 under the following plan: The new capitalization of 90,000,000 francs consisted of 180,000 preferred shares of 500 francs each, carrying the right to a first dividend of 6 per cent; and 180,000 dividend shares without face value, to be turned over to the shareholders of the Lloyd, the old stock being canceled. The 180,000 preferred shares were to be used to

replace the bonds covering the outstanding mortgage on the Lloyd Royal Belge ships and to reimburse the Government for sums due for war-profits tax (6,000,000 francs) and for ships purchased from the Government (5,000,000 francs). The Government in final analysis would be owner of 22,000 preferred shares and 106,782 dividend shares.

According to the annual report of the company covering operations for 1928, the fleet then owned and in service amounted to 128,275 gross tons and was valued at 120,831,150 francs (\$3,359,100 at the stabilized rate of \$0.0278 to the franc), or 940 francs (\$26) per ton. Three 14-knot vessels of 9,000 gross tons and two 12-knot vessels of 5,200 gross tons were in process of construction.

The cargo traffic carried by the line during the year amounted to 964,202 tons, of which 411,136 tons were outwards from Antwerp, 523,673 tons inwards to Antwerp, and 29,393 tons were carried between other ports. This traffic, over the three lines to New York, Brazil, and the River Plate, resulted in gross freight earnings of 185,000,000 francs (\$5,143,000) and a gross profit of 25,206,915 francs (\$700,750), to which is added 2,396,545 francs (\$66,625) earned on funds. From this amount 20,316,010 francs was charged to amortization, and the remaining 7,287,450 francs was distributed, 364,375 francs to a 5 per cent legal reserve fund, 5,400,000 francs to a 6 per cent dividend on the preferred stock, and 1,523,075 francs as a tax on the dividends.

Management of the company

Because of the large Government investment in the Lloyd Royal Belge, a special administrative body has been set up on which all interests are represented. The company is governed by a council of administration of 16 members, a board of commissioners of 3 members, 2 Government commissioners, and a general management.

The council of administration functions under a president, who is Minister of State and vice governor of the Société Générale de Belgique, the institution holding the largest financial interest in the company; and a vice president, who is a director in the same financial institution. Three administration members are directors of the Société Générale de Belgique, and the others include representatives of the Bank of Antwerp, the city of Antwerp, the National Bank of Belgium, and director general of the treasury.

The board of commissioners consists of a representative of the Bank of Antwerp, a notary, and a professor of the University of Louvain.

The two Government commissioners were in 1928 the director general of the Ministry of the Marine and a professor of the University of Ghent.

MERGE OF 1930

On March 5, 1930, Assistant Commercial Attaché Leigh W. Hunt at Brussels reported that on February 7 a decree was issued authorizing the fusion of the Lloyd Royal Belge with the Compagnie Belge Maritime du Congo, a company operating to Africa and owner of 22 steamers with a total tonnage of 69,436.

The Belgian Government exchanged its 22,000 preferred shares and its 106,782 dividend shares in the Lloyd Royal Belge for 25,223 shares of the Compagnie Belge Maritime du Congo. The shares of the Lloyd Royal Belge are not quoted on the Belgian Bourse. The quotation of the shares of the Compagnie Belge Maritime du Congo at the time the transfer was 1,325 francs (\$36.94), making the current value of the shares transferred to the Government \$931,738.

COMPAGNIE MARITIME BELGE

The new organization resulting from the amalgamation of the Lloyd Royal Belge and the Belge Maritime du Congo is to be known as the Compagnie Maritime Belge. According to the British shipping paper, Fairplay, for May 21, 1931, the balance sheet of the new company for the financial year ended December 31, 1930, shows that gross receipts increased by 55 per cent compared with the previous year. On the other hand, the management and general expenses also increased, so that the gross profit for 1930 amounted to 41,712,340 francs, against 50,286,711 francs in 1929. After providing 23,071,550 francs for writing off and 650,000 francs for bond interest, there remained a credit balance of 18,268,632 francs, which permitted the payment of a dividend of 50 francs net, or 10 per cent, on the 323,692 ordinary shares of 500 francs, and a dividend of 6 per cent on the 31,450 nominative shares of 100 francs.

The fleet, which on December 31 consisted of 6 packet boats and 32 cargo boats having a total carrying capacity of 291,100 tons, besides 2 tugs and 20 lighters, is shown in the balance sheet at 374,292,027 francs. The present capital is 165,000,000 francs, and the reserves appear in the balance sheet at 183,701,915 francs, composed of 12,370,501 francs as "reserve funds" and 171,331,414 francs representing the increased value of the fleet resulting from the revaluation of part of it.

GOVERNMENT-OPERATED CHANNEL SERVICE

The State maintains a cross-channel service carrying mails, passengers, merchandise, and automobiles. In 1926 receipts exceeded operating expenses by 4,716,000 francs (\$153,700 at exchange of \$0.0326), while in 1927 the excess of receipts over expenses was 14,566,000 francs (\$404,900 at the stabilized rate of \$0.0278).³

The ordinary and extraordinary budgets for 1928, 1929, and 1930 have provided an appropriation of 70,000,000 francs (\$1,946,000 at stabilized exchange) for the acquisition of two turbine cross-channel steamers for the Dover-Ostend services as authorized in 1928. These were ordered at the Hoboken yards of the Société John Cockerill at about 35,000,000 francs (\$973,000) per ship. They were designed for a de luxe service between England and Belgium by 1930, when an international exhibition commemorating the centenary of Belgium's independence was held.

In 1929 two additional vessels were ordered for this service, for which the 1929 and 1930 budgets granted credits of 83,000,000 francs (\$2,307,400).

³ Ministère des Chemins de fer, Marine, Postes, Télégraphes, Téléphones et Aéronautique: Compte rendu des opérations, pendant l'année 1927, p. C10.

POSTAL CONTRACT SERVICES

Although the shipping situation as outlined above indicates that Belgian overseas trade does not suffer from lack of transportation, the Belgian Government from time to time has given official attention to the development of a national merchant marine and to extension of shipping generally; the Antwerp situation is partially due to this policy. Political considerations in respect of colonial connections by sea make it expedient in Belgium, as in other countries, that such connections be established by means of national vessels.

Encouragement to commercial shipping in Belgium has been extended in two directions—first, toward the interior, stimulation of concentration of traffic in the port of Antwerp by means of the national railroads, inland waterways, and through the exterior attraction of vessel tonnage, regardless of nationality—in short, a concentration of ships and cargo in national territory; secondly, toward the direct stimulation of a national fleet. The Government, however, has not extensively subsidized ocean services. Whenever such policy has been in force the object has been to establish regularity of ocean services, and this has resulted in subsidies being granted to foreign as well as to Belgian companies.

CONTRACT OF 1877

Société Anonyme de Navigation Belge-Américaine.—On July 14, 1877, the Belgian Government concluded an agreement with the Société Anonyme de Navigation Belge-Américaine of Antwerp and the International Navigation Co. of Philadelphia establishing a regular service of mail steamers, with a weekly sailing from Antwerp to New York and vice versa, and a sailing every six weeks from Antwerp for Philadelphia and vice versa. The Belgian Government guaranteed the sum of 500,000 francs (\$96,500 at the then par rate of \$0.193 to the franc) per year as a maximum return for carriage of the mails, and reimbursed the contractor for all pilotage fees, light dues, etc.

The contract was for 15 years, both parties reserving the right to cancel at the expiration of the tenth year.

CONTRACT OF 1886

North German Lloyd.—In 1886 the Belgian Government entered into an agreement with the North German Lloyd of Bremen providing for calls at Antwerp by the company's steamers on their outward and inward voyages to and from the Far East. In consideration of this the Belgian Government granted the German company an annual subsidy of 80,000 francs (\$15,440 at exchange of \$0.193) and reimbursed it for all pilotage fees, light dues, etc., paid to both Belgian and Netherland authorities.

CONTRACTS OF 1887

Red Star Line.—Beginning in 1887 the Red Star Line was paid a yearly subsidy of 380,000 francs (\$73,340) for a weekly mail service between Antwerp and New York.

⁴ United States Consular Reports, 1890, vol. 32, p. 101.

Compagnie Sud-Américaine.—The Compagnie Sud-Américaine operated a line between Antwerp and the River Plate and Brazil with three round voyages per month, for which the Belgian Government guaranteed the sum of 500,000 francs (\$96,500) per year as a minimum return for carriage of the mails.

The contract in the Antwerp-North and South American services was for 15 years, both parties reserving the right to cancel at the end of the ninth year. The Government requirements were national registry, sufficient tonnage to guarantee uninterrupted service, minimum tonnage of 2,700 gross tons, accommodation for various classes of passengers, scheduled sailings, and prescribed speed.

CONTRACT OF 1889

German-Australian Steamship Co.—The agreement with the German-Australian Steamship Co. was entered into in 1889 and provided that the vessels of this company on outbound voyages from Hamburg to Australia should call at Antwerp once every four weeks and on their homeward voyages should call at Antwerp not less than 6 nor more than 13 times a year. The company agreed also to carry at least 1,500 tons of cargo from Antwerp on the outward voyages. Under this agreement the company received 1,500 francs (\$289.50 at exchange of \$0.193) for each outbound and each return voyage between Antwerp and Australia. Apparently this company was not granted an exemption from pilotage fees, light dues, etc.

PRESENT ARRANGEMENTS FOR OCEAN MAILS

Special annual contracts with German lines by which, in return for the refund of pilotage dues amounting to about \$45,000, steamers of those lines bound for Australia, Asia, and the west coast of South America touched at Antwerp and carried Belgian mails, terminated in 1914, and have not been renewed. Belgian ocean mails are now carried at International Postal Union rates by the ships offering the promptest dispatch, the exception being the Belgian Congo Line, which carries all the colonial mail. Mail for the west coast of South America is sent via London or La Rochelle and La Pallice by British or French steamers. The mail for the American continents generally is sent by the Government railroad and the Government channel ferries from Ostend to Dover and turned over to the British post office, which dispatches it from Southampton or Liverpool; but since March, 1920, an agreement with the Red Star Line permits direct carriage to the United States from Antwerp.

BELGIAN MARITIME CREDIT

GOVERNMENT LOANS TO SHIPPING COMPANIES

The policy of granting loans to shipping companies operating under the Belgian flag was instituted by the law of August 18, 1907, which gave the Government authority to subscribe, under certain conditions, a sum not exceeding 5,000,000 francs (\$965,000 at \$0.193 to the franc) toward the capital stock of three Belgian shipping companies, the Ocean, the Royal Belgian-Argentine, and the Belgian National, the loans to be secured by 3 per cent bonds redeemable at par after 20 years.

The Ocean Co., which was founded in 1903, operated five of its own steamers, in addition to chartered vessels, on regular routes to Mediterranean ports. A loan of 2,000,000 francs (\$386,000) was granted on condition that the company should have a paid-up capitalization of 4,000,000 francs (\$772,000) and that the money advanced should be used exclusively for increasing the company's fleet. The company also agreed to build, mainly in Belgian yards, 10 vessels ranging in size from 1,100 to 1,300 net tons.

The Royal Belgian-Argentine Co., which was founded in 1906, operated four of its own steamers, in addition to chartered vessels, in regular service between Antwerp and Argentina. Its loan of 2,000,000 francs (\$386,000) was made on condition that the company should have a paid-up capitalization of 5,000,000 francs (\$965,000) and should build, mainly in Belgian yards, six vessels ranging in size from 1,825 to 3,056 net tons.

The Belgian National Co. of Maritime Transportation, which was founded in 1889, operated nine steamers in regular service between Antwerp and the eastern Mediterranean. Its loan was 1,000,000 francs (\$193,000). This company was required to have a paid-up capitalization of 4,000,000 francs (\$772,000) and to build nine vessels of 1,500 to 3,000 net tons capacity, preferably in Belgian shipyards.

PROPOSED MARITIME-CREDIT ORGANIZATION

In conformity with the general development of State-aided maritime-credit agencies, a bill⁵ was introduced in the Chamber of Representatives of Belgium on June 25, 1930, providing for a State-aided maritime credit institute. This bill was approved by the Cabinet. It contemplates organization of a company to be known as the Société Nationale de Credit Maritime, whose purpose is to supply capital for the renewal or enlargement of the Belgian commercial fleet.

The proposed measure provides (art. 1) for a capital of 100,000,000 francs (\$2,780,000 at the current stabilized rate), of which the State shall contribute (art. 2) not to exceed 65,000,000 francs (\$1,807,000), thus placing control with the Government. The company is to be authorized to issue bonds up to five times the capital.

Advances may be made in the following maximum amounts, based upon the valuation of the vessels concerned (art. 19): 60 per cent on vessels between 5 and 10 years old; 70 per cent on vessels less than 5 years old; 75 per cent for vessels under construction; 80 per cent for vessels under construction in Belgian shipyards. The term of repayments of advances depends upon the age of the vessels, but in no case is it to exceed 20 years.

Interest on bonds issued and the repayment of capital will be guaranteed by the Government. The interest rate on advances to shipowners will be determined by the actual rate to be paid on the bonds. The Belgian Government will absorb three-fourths of the interest due the company by the shipowners, with a maximum annual amount of 25,000,000 francs (\$695,000), the remainder of the interest being payable to the company by the borrowers.

⁵ Project of Law No. 332, Chambre des Représentants, sess. 1929-30, June 25, 1930.

PREFERENCES AND RESTRICTIONS

RESERVATION OF THE COASTING TRADE

Coasting trade is practically nonexistent in Belgium. Inland water transportation is practicable between all Belgian ports and is much cheaper than coast traffic. There is therefore no interest shown by the Government in coasting trade, Commercial Attaché R. C. Miller, Brussels, reports, and no regulations exist restricting this traffic to Belgian vessels.

Neither are there any regulations limiting the trade between Belgium and the Congo to ships of Belgian registry. The only provision resembling a restriction is a private contract with the Compagnie Maritime du Congo Belge, which provides that merchandise purchased in the Belgian Congo by the Belgian Government or purchased from Belgium by the Congo Government will be transported in ships of the Compagnie Maritime.

EXEMPTION FROM FISCAL CHARGES

IMPORT DUTIES

Since the passage of the law of April 12, 1864, all materials imported for the construction, alteration, repair, or equipment of vessels, as well as foreign-built vessels transferred to Belgian registry, have been admitted free of duty.

PORT DUES

Prior to the World War various concessions were made to foreign companies in the establishment of liner services from Belgium.

Under service contract agreements between the Belgian Government and the North German Lloyd, the Kosmos Line, and the United Steamship Co., of Copenhagen, the vessels of these companies were exempted from pilotage fees, entrance and clearance fees, and light dues at all Belgian ports on voyages made in conformity with these agreements. The state agreed, moreover, to reimburse these companies for similar dues paid to the Netherland Government, which controls the mouth of the River Scheldt, the approach to Antwerp.

The exemption from pilotage fees, light dues, etc., was of greater assistance than the subsidy itself, as is indicated by the fact that in 1912 the reimbursement to the North German Lloyd on account of pilotage charges, etc., amounted to 145,350 francs (\$28,050), while the subsidy amounted only to 80,000 francs (\$15,440).

This exemption was made to the Kosmos Line, also under the German flag, as early as 1874, and to the United Steamship Co., of Copenhagen, a Danish corporation, at a later date. The original agreement with the Kosmos Line provided that the vessels of this company should call at least once a month at Antwerp on the outward voyage to the west coast of South America. Later this service was increased to two calls a month.

Reimbursements by the Belgian Government from 1901 to 1912 amounted to 1,917,100 francs (\$370,000) to the North German Lloyd and 437,825 francs (\$84,500) to the Kosmos Line.

PREFERENTIAL RAILWAY RATES

REDUCED RAILWAY RATES ON EXPORTS

The railways of Belgium are owned by the Government, and reduced railway rates on export traffic have been a continuous policy. The British Minister at Brussels, in a report on shipping subsidies in 1897, pointed out:

Very great reductions are made in favor of all kinds of merchandise destined for Belgian ports, and these no doubt have very much contributed to the enormous increase which has taken place in the shipping trade of Antwerp. These rates are mostly calculated on a differential scale, the cost of transport decreasing per kilometer in proportion with the distance traversed. * * * A series of special fixed tariffs has also been arranged with certain regular lines of steamers and also with other European countries, for the direct transit of goods in order to encourage as much as possible their exports as well as their imports through Belgian ports.

Under an agreement approved September 10, 1895, between the Belgian State Railways and the Red Star Line, which was the most important line under the Belgian flag, special arrangements were made for facilitating traffic destined for the ships of this company. It is believed, however, that the Red Star Line secured little, if any, preferential advantage under these arrangements.

At present there are a number of special schedules quoting favorable rates on goods for export, covering, among, others, metallurgical products (raw and finished), cement, and glass. These, however, do not indicate preference to Belgian vessels but are designed to stimulate and aid the industries concerned and to move the products through Belgian seaports.

COMPENSATION FOR HIGH FREIGHT CHARGES

In 1929 the Belgian Government created a special committee, with offices in Antwerp and Ghent, to take charge of the distribution of premiums which the Government had decided to grant as compensation for the higher freight charges paid by merchandise transported from Antwerp to the mouth of the Rhine due to lack of a direct canal between Antwerp and Moordyk—estimated at 2.50 francs (\$0.07 at stabilized exchange) per ton. The Government granted a credit of 5,000,000 francs (\$139,000) to be spent in premiums in compensation of this added charge. According to a report from Assistant Commercial Attaché Leigh W. Hunt, Brussels, July 31, 1929, the premiums were fixed for the time being at 2.50 francs per ton for grains and 1.50 francs for other merchandise leaving Belgian ports for the Rhineland.

BRAZIL

ECONOMIC DEVELOPMENT AND SHIPPING

NATURAL CONDITIONS AFFECTING SHIPPING

Brazil is the largest of the South American Republics, occupying 45 per cent of the South American Continent. It has an area equal to the combined areas of continental United States (without Alaska), the United Kingdom, Netherlands, Belgium, Switzerland, and Portugal. The coast line is more than 4,000 miles in length, and two-thirds of the population of nearly 34,000,000 dwells on the cool eastern plateau that extends from Pernambuco to Rio Grande do Sul.

There are 40,000 miles of navigable rivers in the country, the Amazon alone being navigated by steamers for 2,300 miles. The Amazon and its tributaries, the Tocantins, the San Francisco, and lesser rivers not only connect the Atlantic seaboard with most points in the interior of Brazil but also provide river communication between the Atlantic and all other Republics of South America except Chile and Venezuela. Accordingly, in the development of Brazil, water communication has held the position it held a hundred years ago in the development of most countries. The relationship which many governments established with their railroads, through subsidies or through government ownership, has been a natural relationship for the Brazilian Government to hold toward its river and coastal services.

Brazil has approximately 20,000 miles of railroad, about half of which is owned by the Government. A century ago, before the British Government began its ocean-mail subsidies, and while France and Norway were operating Government-owned steamer services, the Brazilian Government had officially started a coastwise steamer line with Navy vessels in order to move passengers and mails between Brazilian ports, and later, in 1836, subsidized a coastwise steamer line to connect Bahia, Pernambuco, Ceara, Maranhao, and Para.

WATER-BOERNE COMMERCE

Although the foreign trade of the country is no accurate indication of the part played by ocean services, the general development of the foreign trade during the past 30 years and the part taken therein by water transportation is indicated by total export and import figures. Coastal and river navigation systems have been the principal transportation factors in lieu of railroads and in conformity with the natural layout of the commerce movement of the country.

Table 99 presents an analysis of Brazilian foreign-trade averages for the period 1901 to 1930. From this it can be observed that the volume of imports is twice the volume of exports, making for unbal-

anced-cargo movement, while the value of exports exceeds the value of imports, thus tending to a favorable money balance and also to a favorable shipping position, in that the export valuation rests largely on coffee, which is capable of bearing high freight rates.

TABLE 99.—BRAZILIAN IMPORT AND EXPORT TRADE, 1901-1930

Period	Volume		Excess of imports	Value	
	Imports	Exports		Imports †	Exports †
	<i>Tons</i>	<i>Tons</i>	<i>Per cent</i>		
1901-1905.....	2,435,000	1,283,000	90.0	£24,921,000	£39,603,000
1906-1910.....	3,364,000	1,446,000	132.6	38,847,000	55,041,000
1911-1915.....	4,336,000	1,416,000	206.2	49,795,000	61,538,000
1916-1920.....	2,486,000	1,934,000	28.5	68,176,000	83,633,000
1921-1925.....	3,764,000	2,006,000	87.6	62,486,000	79,665,000
1926.....	4,947,000	1,858,000	166.2	79,876,000	94,254,000
1927.....	5,520,000	2,017,000	173.7	79,634,000	88,689,000
1928.....	5,839,000	2,075,000	181.4	90,669,000	97,426,000
1929.....	6,018,000	2,189,000	174.9	86,653,000	94,831,000
1930.....	4,881,000	2,274,000	114.7	82,619,000	65,746,000

† Values are in British sterling.

Source: Foreign Trade of Brazil, 1931.

THE BRAZILIAN COMMERCIAL FLEET

GROWTH OF THE MERCHANT MARINE

The Brazilian commercial fleet includes 498,789 gross tons, representing 311 vessels of 100 gross tons or more. Its development since 1913 is shown in the following table:

TABLE 100.—GROWTH OF THE BRAZILIAN COMMERCIAL FLEET

July 1—	Total fleet †	Power-driven vessels †	Sailing vessels †	July 1—	Total fleet †	Power-driven vessels †	Sailing vessels †
	<i>Gross tons</i>	<i>Gross tons</i>	<i>Gross tons</i>		<i>Gross tons</i>	<i>Gross tons</i>	<i>Gross tons</i>
1913.....	305,330	290,887	14,443	1923.....	478,630	459,416	19,214
1914.....	329,637	313,416	16,221	1924.....	464,734	444,005	20,729
1915.....	323,939	307,607	16,332	1925.....	465,643	447,554	18,089
1916.....	317,414	302,513	14,901	1926.....	482,308	464,549	17,759
1917.....	303,800	290,637	13,163	1927.....	525,431	507,725	17,706
1919.....	512,675	492,588	20,087	1928.....	559,468	542,092	17,376
1920.....	497,860	475,224	22,636	1929.....	560,680	545,095	15,585
1921.....	499,325	476,436	22,889	1930.....	558,777	543,613	15,164
1922.....	492,571	469,444	23,127	1931.....	498,789	493,943	4,846

† Vessels of 100 gross tons and upwards.

Source: Lloyd's Register of Shipping.

By size and age groups the power-driven fleet consisted of:

TABLE 101.—POWER-DRIVEN COMMERCIAL FLEET OF BRAZIL ON JULY 1, 1931, BY SIZE AND AGE GROUPS

Size of vessel	Total fleet ¹	Under 5 years	5 and under 15 years	15 years and over
	<i>Gross tons</i>	<i>Gross tons</i>	<i>Gross tons</i>	<i>Gross tons</i>
100 tons and under 500 tons.....	36,438	2,297	3,766	30,375
500 tons and under 1,000 tons.....	32,200	930	3,746	27,524
1,000 tons and under 2,000 tons.....	66,696	1,249	7,390	58,057
2,000 tons and under 4,000 tons.....	117,731		2,162	115,569
4,000 tons and under 6,000 tons.....	151,667	49,390		102,277
6,000 tons and under 8,000 tons.....	71,185			71,185
8,000 tons and under 10,000 tons.....	18,026			18,026
Total.....	493,943	53,866	17,064	423,013

¹ Vessels of 100 gross tons and upwards.

Source: Lloyd's Register of Shipping.

Seventy-three of these vessels, having a gross tonnage of 271,356, or more than half the national total, belong to the Lloyd Brasileiro.

HISTORY OF THE LLOYD BRASILEIRO

The Lloyd Brasileiro represents the foreign-going commercial fleet of Brazil as well as part of its coastal shipping, and the history of this company is, in substance, the principal part of the Government's experience with subsidies to ocean services in the foreign trade. The Lloyd Brasileiro fleet is one of the largest Government-controlled fleets in the world.

The Lloyd Brasileiro Steamship Co. was founded in 1890. Decree No. 208 of February 19, 1890, authorized the Brazilian Government to contract with Admiral Arthur de Jaceguay, Dr. Antonio Paulo de Mello Barreto, and Manuel de Fonseca for the organization of a Brazilian navigation company by the consolidation into one company of the principal subsidized coastal lines; and decree No. 857 of October 13, 1890, approved the establishment of the company. The combination included the Trans-Atlantic Co., the National Steam Navigation Co., the Progresso Maritimo, Espirito Santo e Caravellas, and one other named the Brasileiro. The consolidation was called the Lloyd Brasileiro.

ORIGINAL PLAN OF COMPANY

The original capitalization of the new company was 20,000 contos (approximately \$9,200,000 at contemporary exchange, a "conto" being 1,000 milreis). On June 2, 1890, the Bank of Brazil loaned the new company 12,000 contos (\$5,520,000) at 7 per cent, which, up to that date constituted the largest single operation of its kind by any single bank in Rio de Janeiro.¹

According to the original plans, the company, besides its status as a commercial organization, was to provide a potential navy which could be diverted to military use at small cost to the treasury. It was further intended to form a trans-Atlantic steamship line. The

¹ Lloyd Brasileiro Annual Report for 1924, p. 61.

company was to receive all the subsidies then granted to the various units which entered into the combination, or about \$700,000 annually.

In the first three years of its existence the Lloyd Brasileiro went through several changes in organization, and in 1893 the Brazilian Government placed the operation of the line in the hands of the Bank of Brazil. In 1909 the company failed and was reorganized. At the time it was receiving subsidies amounting to \$892,000 for lines covering annually almost 1,000,000 miles, or at the rate of about \$0.90 a mile, with voyages to New York, but mainly along the Brazilian coast.

PERIOD OF GOVERNMENT OWNERSHIP

In 1911 the Lloyd Brasileiro was placed directly under the control of the Government and so remained throughout the World War. Late in 1913 the Government acquired all the capital stock of the company, with the intention of selling it. Bids were called for but none received. The Government continued operation of the services and purchased some vessels.

In 1916 forty-three German vessels of 215,430 gross tons, which were in Brazilian ports, were seized by the Government and delivered to the Lloyd Brasileiro. Thirty vessels of this fleet were chartered to the French Government for the war period and, with the exception of two which were lost, were returned to Brazil after the war and added to the Lloyd Brasileiro fleet.

In 1919 the company opened foreign services to Hamburg, New Orleans, and New York.

RETURN TO PRIVATE OPERATION

In 1920 the line was incorporated as the Companhia de Navegação Lloyd Brasileiro in order to have a commercial status although the stock is held principally by the Government. The property of the old company, which up to that time had been valued at from 32,200 to 97,400 contos, was, upon delivery to the new corporation, written down to 25,000 contos.

As a corporation the Lloyd Brasileiro again became eligible to subsidies, and accordingly a subsidy of about 18,000,000 milreis was granted, of which 12,000,000 milreis was for coastwise services. In 1924 the total subsidy was increased to 23,000,000 milreis, and in 1926 the amount was 19,675,000 milreis. Exceptionally large revenues in commercial operation during 1926 resulted in a considerable profit,² and in 1927 no subsidy was granted. In 1928 a new contract was signed, details of which appear on pages 445-447 following.

In all instances the total subsidies received by the company during recent years divide themselves into approximately one-third for the overseas services and two-thirds to the coastal services.

NAVIGATION BOUNTIES

The history of subsidies to steamships in Brazil revolves principally around the coastal and river services and is in effect a struggle

² According to a report by Trade Commissioner M. A. Cremer, Rio de Janeiro, July 17, 1928, the Lloyd Brasileiro, during an operative history of 38 years, showed profits for only 6 years—1903, 1904, 1905, 1923, 1925, and 1926.

between unfavorable natural conditions (in terms of vast expanse of coast line and undeveloped territory) and the necessity for providing communication between the widely separated communities of a nation in which railroads long were not an economic factor. Besides, operation of steamers has been far less costly to the Government than the building of railways in a country where capital for large enterprises has been scarce and where such rail lines would have been built through territory which, in the main, has been unattractive to immigrants on account of climate. Moreover, the policy of steamship communication services has developed a commercial fleet which, in respect of Suez and Panama Canal transitings, compares well with far older maritime nations.

BOUNTIES TO COASTAL SHIPPING

Subsidies in Brazil, as in other countries, were not paid until the advent of the steamship, and the first and principal subsidies were, and remain, those paid to navigation companies for coastal services by which the widely separated communities were united.

The first region in Brazil to be connected by subsidized steamer services was the northern coastal region beginning at Para and continuing south to Maranhao, Ceara, Pernambuco, and ending at Bahia, a distance of about 1,400 miles. This was in 1836. In 1839 a similar line was subsidized to cover the southern ports, although lack of traffic caused sailings to be irregular. Both lines were continued under the *Companhia Brasileira de Transportes a Vapore* (Brazilian Steam Transport Co.) until 1872, when a reorganization placed the southern line in the hands of the *Companhia Nacional de Navegação a Vapor* while the northern line became the *Companhia Brasileira de Navegação a Vapor*. They later formed part of the *Lloyd Brasileiro* merger in 1890.

In addition to the great coast lines several small, short coastal lines developed, based usually upon the territory tributary to the various ports.

Bahia.—As early as 1819 a company was formed which operated between the port of Bahia and Cachoeira. Later the Bahian trade was handled by two companies, one working north as far as Maceio and another taking the small-port trade to the southern boundary of the State of Bahia. In 1852 the Government gave a 20-year concession for the Bahian coastal trade to the *Companhia Bahiana*. An additional line of sailing vessels in the sugar and salt trades worked out of Bahia as far south as Rio Grande do Sul.

Pernambuco.—A coastal line was organized in Pernambuco in 1856. By decree of January 31, 1863, the Government granted concessions which established two new lines, one to the north as far as Ceara and one to the south as far as Maceio. The subsidy was for 20 years.

Maranhão.—In 1858 Maranhão contracted with the Imperial Government and with the *Companhia de Navegação a Vapor* for two lines, both from Maranhão, one north as far as Para and one south as far as Ceara, where the new line joined the Pernambuco line.

Other lines.—Other small lines which were subsidized were: *Companhia do Espirito Santo*, organized in 1850 for service between

Rio de Janeiro and Victoria; a line from Rio de Janeiro and São Matheus in 1857; a line from Macaê to Campos and from Rio de Janeiro to Caravellas in 1862. Service between Santos and Rio de Janeiro began in 1854.

BOUNTIES TO RIVER SERVICES

For reasons similar to those that impelled the government to encourage coastal navigation lines the government also fostered the extension of river lines, the first of which was for navigation between Itapicurú-mirim, Merim, and neighboring ports of San Marcos Bay. These services were transferred to steamer lines in 1857, and the lower Parnahyba River services have been subsidized and served by the Empreza Fluvial Piauhense Co. since 1862.

The Imperial Government contracted for steamer services on the Amazon in 1852. As originally drawn the contract included important colonization concessions. This privilege was withdrawn in 1857.

When Brazilian coastwise shipping was thrown open to foreign ships in 1862, the Amazon steamship lines passed to British interests as the Amazon Steam Navigation Co. (Ltd.), authorized to operate by decree No. 5020 of July 18, 1872, from which date the company had a practical monopoly for a long time.

BOUNTIES FOR OVERSEAS SERVICES

While the policy of subsidized navigation services for the coastal and river services was of earlier origin, the first subsidies to shipping in the foreign trade were made to an American steamship line, the United States & Brazil Steamship Co., to which, as far back as 1864, the Brazilian Government for 10 years paid \$100,000 annually while the Government of the United States paid the company \$150,000 annually.

SÃO PAULO SUBSIDIES TO FOREIGN SHIPS

State decree No. 2400 of July 9, 1913, of the State of São Paulo authorized the government to encourage immigration and to grant subsidies for the purpose of providing reduced transportation rates for immigrants disembarking at Santos and going to the State of São Paulo. Two years previously, by decree No. 1292 of December, 1911, the State government was authorized to enter into an agreement with the Federal Government for developing shipping at the port of Santos, and concluded a contract with the Federal Government and with four Italian shipping companies, the Navigazione Generale Italiana, La Veloce, Lloyd Italiana, and Italia, whereby these companies were to establish special steamer services between Genoa or Naples and Santos for five years for a subsidy of 60 contos (about \$19,400 at 1911 average value of the paper milreis) per round voyage, two-thirds of the amount to be paid by the Federal Government and one-third by the State of São Paulo. A few voyages had been made when the Italian Government objected to the arrangement and the contracts were canceled by mutual agreement.

LLOYD BRASILEIRO CONTRACT OF 1928

On July 4, 1928, the President of Brazil signed a decree³ authorizing the Brazilian Government to conclude a shipping service contract with the Lloyd Brasileiro Steamship Co. which, in effect, is one of the largest single subsidized shipping service contracts in the world. The contract provided for a grant of 18,000,000 milreis (\$2,154,600 at \$0.1197 to the milreis, the average rate for that year) annually for operations covering 965,000 miles of passenger service at an average rate of about \$2.15 per mile over the entire service, in addition to cargo services to Europe and North America as well as coastal and inland river services.

The services comprise eight passenger lines, the principal subsidy grants being upon the mileage made over three lines on the Brazilian and South American coast and on one line extending to France.

TABLE 102.—PROVISIONS OF LLOYD BRASILEIRO CONTRACT OF 1928

[Passenger services]

Line	Voyages per year	Miles per voyage	Miles per year	Subsidy per voyage, milreis	Annual subsidy	
					Milreis	Equivalent in United States currency ¹
European.....	24	12,200	292,800	227,519	5,460,456	\$653,617
Coastal and river between:						
Manaos and Montevideo.....	24	8,000	192,000	149,193	3,580,632	428,602
Rio de Janeiro and Belem.....	52	4,700	244,400	87,650	4,557,800	545,569
Rio de Janeiro and Porto Alegre.....	52	2,100	109,200	39,163	2,036,476	243,766
Rio de Janeiro and Feneado.....	12	2,000	24,000	37,298	447,578	53,575
Rio de Janeiro and Laguna.....	12	1,150	13,800	21,446	257,352	30,805
Rio de Janeiro and Santa Victoria do Palomar.....	24	408	9,792	7,608	182,592	21,856
Matto Grosso Line.....	24	3,300	79,200	61,542	1,477,008	176,797
Total.....			965,192		17,999,892	2,154,587

¹ Converted at \$0.1197 to the milreis, the average rate for the year 1928.

There are eight cargo lines, including lines to Liverpool, New York, and New Orleans, but bounties are not granted on cargo-vessel operation.

Life of the contract

The contract was to run for a 5-year period retroactive to January 6, 1928, so far as the passenger services were concerned, and upon expiration was to be renewed by mutual consent, subject to approval by the National Congress. Decree No. 19198 of May 2, 1930, prolonged the contract 15 years and increased the annual subsidy to 20,000,000 milreis (\$2,362,000 at exchange of \$0.1181) for the period of the extension. A special decree (No. 19199 of the same date) authorized an additional credit of 4,000,000 milreis (\$472,400) for the years 1929 and 1930.

A decree of February 9, 1931, defined the official status of the company and granted preferences in various ways. (See p. 451 following.)

³ Decree No. 18305, published in the *Diario Oficial* of July 19, 1928.

Foreign-service provisions

Under the contract of July 28, 1928, the Lloyd Brasileiro undertook to maintain the following services outside of the coastal and river trades of Brazil:

Passenger service.—Two round voyages monthly between Santos and Hamburg, with calls at Rio de Janeiro, San Salvador, Recife, Leixoes, and Havre, France; two round voyages monthly between Corumba and Montevideo, with calls at Porto Esperansa, Porto Coimbra, Barranco Branco, Porto Murtinho, Asuncion del Paraguay, and Rosario, Argentina.

Freight services.—One round voyage monthly between Rio de Janeiro and Liverpool, with calls at intermediate ports; one round voyage monthly between Santos and New York, with calls at intermediate ports; one round voyage monthly between Santos and New Orleans, with calls at intermediate ports.

Contract conditions

Free transportation for Government.—The company is obliged to transport free of charge the following for the Government:

1. Mails, in accordance with existing legislation; their transfer from ship to shore and from shore to ship is for account of the company;
2. Employees of the Federal Department of Navigation Inspection;
3. Employees of the Federal Postal Service;
4. Public moneys, in accordance with existing legislation;
5. Objects intended for the Departments of Transportation and Public Works, or bureaus under their administration; and all objects for official expositions sponsored by the Government;
6. Seeds and sprouts of plants, and agricultural implements for public parks, or for public establishments, or for agricultural syndicates or societies being aided by the Government.

Reduction in rates to States and Federal Government.—The company is obliged to grant a 30 per cent reduction in transportation rates to the Federal Government, or to any State government, on all transportation not provided for under the gratis transportation clause.

Aid to War Department equipment.—The Lloyd Brasileiro is obliged to keep its dry docks and repair ships at Mocangue in condition and repair so as not only to maintain its own fleet but also lend any required assistance to vessels of the Navy as ordered by the Marine Bureau of the National Department of War.

Fuel deposits.—The Lloyd Brasileiro is obliged to furnish from stores in Rio de Janeiro and in the various States all fuel required by the Federal Navy or other department of the Federal Government when such supplies can not be obtained from other sources.

The company is prohibited from disposing of vessel property without Federal authority, and all plans for the acquisition of new vessels must be approved by the Government. Vessels lost must immediately be replaced.

Sailing schedules and freight and passenger tariffs must be approved by the inspector of navigation and must not be altered without Government approval.

Vessel equipment

In view of the large amount of subsidy involved in this contract the apparent absence of any requirements for renewal of contract equipment is unusual in current practice. Obviously the maintenance of service requirements as to speed and sailings will require capable equipment, but, unlike other countries, even in those countries where there is no shipbuilding industry to be considered in connection with vessel renewals, employment of labor and so on, the contracting government usually specifically requires a program of replacement of vessel tonnage for specified routes in order to meet estimated competition in such routes.

In 1931 the Lloyd Brasileiro Steamship Co. owned 73 vessels of 271,356 gross tons. An analysis of this tonnage by age groupings shows 3 vessels of 5,737 gross tons to have been built between 1879 and 1889; 7 vessels of 26,802 gross tons between 1890 and 1899; 42 vessels of 151,693 gross tons between 1900 and 1909; 17 vessels of 83,000 gross tons between 1910 and 1919; and 4 vessels of 4,124 gross tons between 1920 and 1927.

The company is reported to have laid down a comprehensive building program covering 18 vessels (12 for cargo service and 6 for passenger service), the total cost of which is estimated at more than £1,500,000, to be covered by long-term payments guaranteed by the Brazilian Government.⁴

TOTAL NAVIGATION BOUNTIES FOR 1930

The bounty provisions contained in the budget estimates of Brazil for 1930 are found in Law No. 5753 of December 27, 1929, published in the *Diario Oficial* as Supplement No. 304 of December 29, 1929. The Federal estimates are shown in Table 103.

TABLE 103.—BRAZIL'S BUDGET PROVISIONS FOR SUBSIDIZED NAVIGATION SERVICES, 1930

Service No.	Service conditions	Amount of bounty	
		Milreals	Equivalent in United States currency ¹
1	Contract with State of Maranhao, owner of the Companhia de Navegacao a Vapor do Maranhao, Dec. 29, 1922, decree No. 15734 of Oct. 13, 1922, and decree No. 18143 of Mar. 9, 1928, for local services.....	320,000	\$37,790
2	Contract with Empresa Lloyd Maranhense of May 8, 1924, decree No. 16402 of Mar. 12, 1924, decree No. 18549 of Dec. 28, 1928, according to agreement of Feb. 6, 1929.....	100,000	11,810
3	San Francisco River services, obligation of the Government of the State of Bahia by decree No. 16743 of Dec. 31, 1924.....	300,000	35,430
4	San Francisco River services, obligation of the State of Minas Geraes, contract of Dec. 13, 1924, by virtue of decree No. 16562 of Aug. 23, 1924.....	300,000	35,430
5	Coastal service between Porto Alegre and Recife, by the Companhia Nacional de Navegacao Costeira, contract of Nov. 30, 1915, decree No. 11774 of Nov. 3, 1915, and decree No. 15755 of Oct. 25, 1922.....	1,040,000	122,825

¹ Paper milreals converted at \$0.1181, the average rate for 1929; gold milreals converted at \$0.5463.

⁴ Report of Vice Consul Theodore A. Xanthaky, Rio de Janeiro, Apr. 20, 1929.

TABLE 103.—BRAZIL'S BUDGET PROVISIONS FOR SUBSIDIZED NAVIGATION SERVICES, 1930—Continued

Service No.	Service conditions	Amount of bounty	
		Milreis	Equivalent in United States currency
6	Coastal service between Rio Grande and Para, decree No. 15755 of Oct. 26, 1922, according to agreement of Nov. 9, 1922.....	5,980,000	\$706,240
7	Services of Alto Tapajoz, decree No. 16740 of Dec. 31, 1924.....	36,000	4,250
8	Services of Autazes, according to decree No. 16742 of Dec. 31, 1924, and Law No. 5670 of Jan. 25, 1929.....	95,000	11,220
9	Lower San Francisco River service by contract with the Empresa de Navegação do Baixo San Francisco Co., contract of Dec. 20, 1927, and decree No. 17894 of Aug. 26, 1927.....	100,000	11,810
10	Amazon River services in accordance with Law No. 4632 of Jan. 6, 1923, exclusive of the three lines, Alto Tapajoz, Autazes and Belem Soure, and Cachoeira.....	2,276,000	268,795
11	Lloyd Brasileiro services according to legislative decree No. 5424 of Jan. 6, 1928.....	18,000,000	2,125,800
12	Services, Cavias-Picos, decree No. 18526 of Dec. 7, 1928, and contract of Jan. 30, 1929.....	60,000	7,085
13	Subsidy to Companhia Fluvial Maranhense, decree No. 18525 of Dec. 7, 1928, and contract of Jan. 30, 1929.....	99,654	11,770
14	Services on the Parnahyba River, Law No. 5424 of Jan. 6, 1928.....	400,000	47,240
15	Cabo fluvial do Amazonas, decree No. 2000 of Apr. 2, 1895.....	* 152,222	83,150
	Total paper milreis.....	29,106,654	} 3,520,650
	Total gold milreis.....	152,222	

* Gold milreis.

Out of a total appropriation of \$3,520,000 it is estimated that \$700,000 (6,000 contos), or about 20 per cent, is devoted to the promotion of foreign service lines, the remainder being for purposes of domestic communication within the Brazilian nation.

CONSTRUCTION BOUNTIES

The first evidence of protection to Brazilian shipbuilding was in the year 1836, when restrictions were placed on all ships used in Brazilian commerce except those which had been built in Brazil or those which had been previously registered, provided the masters and owners of these vessels were citizens of Brazil.

By Law No. 369 of September 18, 1845, bounties of 10 milreis (about \$5.10 at average 1845 exchange) per ton were granted to any vessel of more than 200 tons built in Brazil, provided the master and two-thirds of the crew were citizens of Brazil. This law was effective for only one year, but appropriations for the same purpose were continued in subsequent budgets. By Law No. 2348 of August 25, 1873, the bounty was increased and other favors conceded to shipbuilders.

On January 6, 1918, by Law No. 3454 shipbuilding bounties were provided at the following rates: 100 milreis (approximately \$12) per displacement ton, computed at the maximum basis according to Lloyd's Register, for vessels from 80 to 1,500 tons; 150 milreis (approximately \$18) per displacement ton for vessels of more than 1,500 tons. These bounties were guaranteed to shipbuilders who agreed to construct 20 vessels of more than 80 tons each during 15

years, and not to sell such vessels for foreign registry without previous authorization by the Brazilian Government. By the same law an agreement was concluded by which the Government advanced to the National Coastal Navigation Co. one-half of the cost of constructing shipyards in which the company undertook a program of construction under the provisions of the law. The loan was to be repaid by the construction and repair of ships owned by the Government at a reduction of 25 per cent below commercial prices.

Decree No. 13617 of May 22, 1918, advanced 6,172,654 milreis (approximately \$740,000) to the National Coastal Navigation Co. upon its agreement to undertake a construction program.

By decree No. 4555 of August 10, 1922, the Government was empowered to alter the National Coastal Navigation contract so that plans for vessels must first be approved by the Navy and Public Works Departments. Vessels must have 12 knots speed and specified equipment. Contractors were exempted from duties on imported materials and from registration taxes.

BRAZILIAN MARITIME CREDIT

GOVERNMENT GUARANTY OF LLOYD BRASILEIRO LOANS

Owing to the fluctuation of the Brazilian exchange (a downward trend set in soon after 1890), to recent stabilization of the milreis, to the varying gold and currency payments to the company (which are not always clearly stated), as well as to the sudden addition of tonnage during the war and other factors, a recital of the Lloyd Brasileiro's subsidy history and its operation accounts will not provide a reliable guide to any conclusion as to the effect of subsidies upon the company's workings. Moreover, two-thirds of its subsidies are granted for its coastal and river services in a vast undeveloped interior.

In one respect, however, the financial history of the company is fairly clear. This may be observed in various loans, the first of which—that of the Bank of Brazil upon organization of the company—has already been mentioned.

Loan of 1906.—Among other loans and bond issues floated by the company was an authorized issue of £1,100,000 (\$5,353,150) in London in 1906, at 5 per cent, payable in 10 years. This issue was fully guaranteed by the Brazilian Government and was exempt from Brazilian taxation.

Loan of 1910.—In 1910 another loan was issued through the same London house as the loan of 1906, at 4 per cent, fully guaranteed by the Brazilian Government and exempt from all Brazilian taxation.

GOVERNMENT LOAN IN UNITED STATES AND ENGLAND

In 1927 a loan of the Brazilian Government partially provided for unpaid subsidies to the Lloyd Brasileiro previously authorized to be paid in 1920 and 1922. The authorization was for \$41,500,000 in the United States and £8,750,000 (\$42,581,875) in England. The loan was for 30 years from October 15, 1927, due October 15, 1957, with interest at 6½ per cent.

In a decree of January 4, 1928, providing for disbursement of proceeds of this loan, the following items appear under the Ministry of Communications disbursements.

Credit to regulate financial situation of the Lloyd Brasileiro, as solicited November, 1920, paper-----	Milreis 24, 500, 000
Credit solicited by the Lloyd Brasileiro December, 1923, as payment of 1922 subsidies:	
Paper-----	3, 800, 000
Gold-----	3, 000, 000

Converting the paper milreis at \$0.1197 (the average exchange value for 1928) and the gold milreis at \$0.5463 (par), these appropriations are equivalent, respectively, to \$2,932,650, \$454,860, and \$1,638,900, or a total of \$5,026,410.

PREFERENCES AND RESTRICTIONS

RESERVATION OF THE COASTING TRADE

The transportation of merchandise between ports in Brazil is reserved by law to Brazilian companies. This provision does not extend to passenger traffic.⁵

As a Portuguese settlement from 1500, Brazil was subject to restrictive maritime regulations by the Portuguese Government. Before the introduction of steamships Brazil had built up a competent sailing fleet which served the needs of the country. On August 3, 1818, the colonial Government opened the coasting trade to steam navigation. This caused the first depression in the development of the Brazilian fleet.

Brazil became politically independent September 7, 1822, but inherited restrictive commerce and navigation treaties from Portugal, which, although modified in 1827, made it possible for Brazilian shipping to engage in the Brazilian coastal trade only. In 1864 the Imperial Brazilian Government declared the coastal trade open to foreign ships. This caused a second depression in the progress of Brazilian shipping, for the competition offered by foreign nationalities consisted of steamer services. This regulation was at first transitory, appearing annually in official decrees until finally by Law No. 2348 of August 25, 1873, the coasting trade was fully thrown open to foreign vessels. The opening of the coasting trade was based upon a desire to improve the communication system, which was dependent upon ships yet included virtually no steamers.

Upon the establishment of a republic in 1889 the coasting trade was made a monopoly by article 13 of the constitution, which reads: "Foreign ships in transit on the Brazilian coast may transport passengers and baggage from one Brazilian port to another, but not merchandise." Regulations of November 11, 1892, and of December 5, 1894 (Law No. 227a), made this provision inoperative until 1896, when foreign vessels were finally excluded from participation in the Brazilian coastal trade.

In 1913 a Government commission was appointed to study the codification of the shipping laws, and by decree No. 10524 of October 23, 1913, the law of July 2, 1896, was revoked and new merchant marine and coastal navigation laws were adopted.

⁵ Trade Commissioner M. A. Cremer, Rio de Janeiro, July 17, 1928.

PREFERENCES TO LLOYD BRASILEIRO IN 1931

Decree No. 19682 of February 9, 1931, published in the *Diario Oficial* of February 12, 1931, defines the official status of the Lloyd Brasileiro on the basis of State ownership of its properties and grants many preferences tending to reduce the cost of operation and increase revenues through wider employment, and reads essentially as follows:

ARTICLE 1. The services and properties of the Lloyd Brasileiro Navigation Co. will be considered as of Federal character only to exempt them from regulations, provisions, or measures which do not emanate from the Federal Government.

ART. 2. The services and properties operated by the company will be free from taxes and dues, also imports for its own consumption will be free from customs duties and taxes, including the 2 per cent gold tax ad valorem, except in cases where similar nationally made materials are available.

ART. 3. Passages and transport for account of the State shall be restricted to vessels of the company to ports served by the company. To foreign ports not served by the company transport shall be made in company vessels to the nearest port of call to such foreign port.

ART. 4. Vessels belonging to the Lloyd Brasileiro which bring cargo from ports in Argentina, Paraguay, and Uruguay to the ports of Pelotas and Porto Alegre, with transshipment at the port of Rio Grande, will be required to present only one manifest at the port of Rio Grande, which will cover all the cargo, with the declaration: "Cargo for Rio Grande, in transit for the ports of-----"

ART. 5. [As amended in *Diario Oficial* of April 29, 1931.] Passengers carried by the Lloyd Brasileiro proceeding from ports of the River Plate republics destined to ports in the State of Rio Grande do Sul will not be required to present passports.

ART. 6. A reduction of 50 per cent will be allowed on the fees collected from the vessels of the Companhia de Navegação Lloyd Brasileiro by Brazilian consulates in European and American ports.

ART. 7. A reduction of 50 per cent in visa fees on bills of lading and on consular invoices will be allowed to shippers by Lloyd Brasileiro vessels.

ART. 8. Legalization of manifests by consuls for Lloyd Brasileiro vessels sailing in ballast will be performed free of charge.

ART. 9. A reduction of 50 per cent will be granted on the telegraphic charges for messages in connection with the services of the company.

ART. 10. Single clearances of vessels of the Lloyd Brasileiro will be free of freight stamps.

ART. 11. Bills of lading for cargo shipped by the Government in vessels of the company are exempt from stamp tax.

ART. 12. Passenger and cargo vessels of the Lloyd Brasileiro engaged in the coastwise service, including vessels calling at ports in the River Plate, are not required to carry hospital attendants.

ART. 13. For vessels of the Lloyd Brasileiro engaged in traffic between Brazilian and foreign ports, port captains are obliged to recognize certificates issued by international classification societies (Lloyd's Register, British Corporation, Bureau Veritas, Registro Maritimo Italiano, and Lloyd Germanico).

ART. 14. The guaranties (bonds) of the directors and agents of the Lloyd Brasileiro covering the release of materials imported for its own consumption up to December 31, 1930, are canceled at the customhouses of Rio de Janeiro, Belem do Pará, Recife, and Rio Grande do Sul, as well as the fiscal dues, including those relating to the revision of clearances, surveys, and fines by the customs on materials released or carried and from all other sources until December 31, 1930.

ART. 15. The provisions of the present decree will be in force as from the date of its publication and, with the exception of the transitory measure contained in article 14, will be incorporated in the contract of the Lloyd Brasileiro under decrees Nos. 18305 of July 4, 1928, and 19198 of May 2, 1930.

ART. 16. All provisions contrary to the above are annulled.

CANADA

ECONOMIC DEVELOPMENT AND SHIPPING

Canadian coastal and ocean-going shipping may be classified more nearly as a part of a centrally controlled transportation and distributive system than as a separate industry. Subsidized shipping services in Canada are more nearly the result of a desire to maintain the transportation system along unbroken lines as a service to Canadian overseas commerce and communication, and to form natural water-route extensions of the railway systems, than an expression of protectionism by the Dominion Government toward a struggling industry.

The position of Canadian shipping as an extension of Canadian railroads is so obvious that comprehensive discussion of the relationship between the Dominion Government and shipping is impossible without reference to the relationship between shipping and the railroads. Evidences of Government support of ocean transportation are more numerous in the direct and indirect Government interest in railroads than in the direct payments of public funds for certain contract performances of ships.

Specifically, consideration of Canadian shipping in its relationship to the Dominion Government leads in general directions, first, toward postal contract services and trade agreements, second, toward government ownership and operation of shipping, and, third, toward encouragement of shipping through Canadian ports. Before proceeding to a more detailed discussion of the subject, some consideration of fundamental conditions in Canada is essential.

NATURAL CONDITIONS AFFECTING SHIPPING

Comprising almost the entire northern part of the North American continent, Canada has an area of 3,684,723 square miles, which compares with the 3,743,529 square miles of the United States and its dependent territories. No country has so long a coast line—about 24,500 miles; if laid in a straight line, it would reach nearly around the earth. Much of this coast line defines territory that has not even been explored. From east to west Canada measures almost 4,000 miles.

Canada's population in 1928 was estimated at 9,658,000. Its distribution in the interior and the western part of the Dominion forms a sparsely settled belt near the southern boundary. The interior is largely agricultural; and agricultural products must find markets, mainly foreign, and are therefore wholly dependent upon cheap carriage. The industrial products of the eastern Provinces must be transported great distances to the consuming markets of the interior.

Before the coming of the railroads Canada was wholly dependent upon water transportation for long-distance hauls. These water

routes were open to navigation only part of the year, and during the remaining months the central portions of the country lacked transport. Railroads were the answer to necessity.

Official American returns show Canada to have been the second leading market for the domestic exports from, and the chief source of imports into, the United States during 1930, taking 16.6 per cent of the domestic exports and supplying 13 per cent of the imports, or respective total values of \$627,811,000 and \$402,350,000. By method of carriage this trade was apportioned:

United States domestic exports to Canada: By cars, \$507,612,000; by vessels—American, \$71,965,000; British, \$41,320,000; other foreign, \$6,376,000.

United States imports from Canada: By cars, \$316,489,000; by vessels—American, \$45,937,000; British, \$31,857,000; other foreign, \$6,648,000.

THE GOVERNMENT AND THE CANADIAN RAILWAYS

The Canadian railway system divides itself into two broad groupings—the privately owned and controlled Canadian Pacific and the Government owned and controlled Canadian National.

The Canadian Pacific gave to Canada length; it tied together the Atlantic and the Pacific regions. The Canadian National gave to Canada breadth; it comprises many projects from north to south (with extensions to the Pacific), some built by the Provinces, some by the Dominion, some partially, at least, by private capital, and all with Central Government support in some form or other.

The beginnings of the Canadian Pacific lay in a Government project; its completion was aided materially by the Government. The beginnings of the Canadian National lay in the projection of a large number of independent and provincial lines to serve local territories, in addition to the Canadian Northern and the Grand Trunk lines; the welding of these units into a railroad entity officially began in 1922 and has been continued since under the Dominion Government.

CANADIAN PACIFIC RAILWAY

After the Maritime Provinces of Canada had been admitted to the confederation a problem arose in connection with the admission of British Columbia. There was no means of communication with the Pacific through Canadian territory. Accordingly, one of the conditions for the admission of British Columbia was the construction of a railway to connect the new confederation member with the eastern Provinces. In 1871 the Government was pledged to provide such transcontinental railway within 10 years and to have work begun within 2 years. Following unsuccessful efforts to have the railroad built with private capital, the Government in 1874 began the work for its own account.

In 1880 private capitalists organized a syndicate and concluded an agreement with the Dominion Government under which it took over the Canadian Pacific Railway and contracted to complete it by May 1, 1891. Actually the line was completed in 1885 and opened for through traffic in 1886.

TERMS OF SYNDICATE AGREEMENT

The agreement between the Government and the syndicate stipulated that upon completion the line should be kept in efficient operating condition.¹ The Dominion Government granted certain concessions. These were:

1. Gift to the syndicate of 713 miles of line, completed or under contract, valued at \$37,785,320.
2. A cash subsidy of \$25,000,000.
3. A grant of 25,000,000 acres of public land.
4. Duty-free admission of essential construction materials.
5. Exemption of the railway and its capital from federal, provincial, and municipal taxes.
6. Exemption from taxation of the land grant for 20 years.
7. A traffic monopoly for 20 years through protection against any competitive railway construction in the western territory south of the Canadian Pacific line. This in effect was a guaranty against penetration of United States railways into Canadian Pacific territory.

It is impossible to measure the national economic value of a structure like the Canadian Pacific Railway. It is therefore equally impossible to measure the effect of these subsidies. The cash subsidy was used along with much other capital in completing the system. Exemption from various charges and the gift of the completed portion of the line were negative factors in that the new line had no known earning power through the western territory nor could such earning power be forecast, while the liability of the requirement of continual maintenance of the new line was a known factor. At that time the two items of greatest potentiality lay in (a) the monopoly against other railroad competition for a given period, through which it would be possible for the new line to become established and to aid in developing the territory, and (b) the land grant.

LAND GRANT

The consideration of most importance to the railroad was the grant of public lands, although at the time the stimulus of the railroad's self-interest through sale of land to settlers in order to develop the railroad's territory was probably the principal purpose of the grant. The land as such had a value of only \$0.10 an acre in 1880, or \$2,500,000; in 1884 the Government fixed a minimum sale price of the land at \$1.25 per acre or \$31,250,000; in 1886, the Government accepted land in payment of claims against the company at the rate of \$1.50 per acre—at which figure the land grant by that time had acquired a value of \$37,500,000.

Moody's Steam Railroads, 1930, states that at the incorporation of the company it received land grants from the Dominion Government in the amount of 26,710,400 acres, of which 6,793,014 acres were disposed of to the Government in 1886. At a valuation of \$1.50 per acre, therefore, the sale value of the land sold to the Government was

¹ The Canadian Yearbook, 1929, p. 640. Jackman, W. T.: Economics of Transportation, p. 19.

slightly more than \$10,000,000. After the 1886 sale to the Government the company held 19,917,386 acres, to which was added acreage by purchase in 1911 and 1912. As of December 31, 1929, the company had 4,685,070 acres unsold, valued at \$67,678,547.

The gross proceeds from land sales up to June 30, 1916, were \$123,810,124, of which \$68,255,803 was considered as net proceeds, the remainder being expended in the colonization and general projects.² It should be stated that besides numerous subsidiary railway lines the Canadian Pacific owns coal lands and improved irrigated lands, a number of hotels, including control of the Chateau Frontenac at Quebec, and the Alberta Stockyards Co.

TOTAL PUBLIC AID TO ROAD

It has been estimated³ that the total public aid received by the Canadian Pacific Railway at the beginning of its operations amounted to \$140,000,000. This takes into account the value of the original mileage at \$37,785,320 and a cash subsidy by the Dominion Government of \$25,000,000 in addition to other cash aid given to the company and its subsidiaries by provincial governments and municipalities, making a total of \$66,905,481 cash from all sources, thus producing an amount of \$104,690,801 as cash subsidies and mileage assets. To this are added the land gifts at a round figure of \$35,000,000, or \$1.25 per acre.

THE CANADIAN NATIONAL RAILWAYS

The organization now known as the Canadian National Railways comprises three great groups—(a) the Canadian National Railway (Grand Trunk) group, which on December 31, 1928, included 38 corporate entities in the form of railroads, terminal companies, elevator companies, warehousing projects, and so on, with a total capitalization of \$204,553,000, of which the system held \$38,656,000 and the Government and others held \$165,897,000; (b) the Canadian Northern Railway Co., which on the same date included 44 corporate entities of a combined capitalization of \$188,031,000, of which the system held \$83,682,000 and the Government and others held \$104,348,000; and (c) the Grand Trunk Pacific Railway Co., which at the close of 1928 included 7 corporate entities of a combined capitalization of \$29,860,000, all held by the system. Of the total capitalization of \$422,444,852 as of December 31, 1928, the Canadian Government held stock in the amount of \$265,628,338.⁴

Under the second of these groups, the Canadian Northern Railway Co., is found the Canadian Government Merchant Marine (Ltd.), incorporated and operating under the name of Canadian National Steamships as part of the Canadian National Railways system. The Canadian Northern Railway group likewise holds the \$2,000,000 authorized capital stock of the Canadian Northern Steamships (Ltd.), incorporated in 1909, to operate steamship lines

² Report of Railway Inquiry Commission, 1917, pp. 16, 17.

³ Jackman, W. T.: Economics of Transportation, p. 41.

⁴ Moody's Steam Railroads, 1929, pp. 1866-1867.

in the interest of the Canadian Northern Railway Co., between Montreal and Bristol, England. Subsequently the ships of the Canadian Northern Steamships (Ltd.) were sold to the Cunard Steamship Co.

TOTAL GOVERNMENT AID TO RAILWAYS

The total aid granted by the Dominion and Provincial Governments and municipalities of Canada to private and Government railroads, according to the Canada Yearbook for 1930, may be summarized as follows:

Total land grants.—Up to December 31, 1929, the Dominion Government had granted 31,781,847 acres and the provincial governments 15,508,719 acres, a total of 47,290,566 acres.

Financial aid to private railways.—The total financial aid given to railroads by Dominion and Provincial Governments up to December 31, 1929, was as follows:

By the Dominion Government:	
Cash subsidies.....	\$118,600,799
Loans.....	15,142,633
Paid to Quebec government.....	5,160,053
Cost of lines handed over to Canadian Pacific Railway.....	37,790,025
Total.....	<u>176,693,510</u>
By provincial governments:	
Cash subsidies.....	33,160,615
Subscription to shares.....	300,000
Total.....	<u>33,460,615</u>
By municipalities:	
Cash subsidies.....	12,988,128
Subscription to shares.....	2,425,500
Total.....	<u>15,413,628</u>
Grand total.....	<u>225,567,753</u>

Government guaranties of railway bonds.—Railway bonds guaranteed by the Dominion Government and outstanding on December 31, 1929, amounted to \$590,841,295,⁵ while bonds guaranteed by provincial governments amounted to \$113,003,528, a total sum of \$703,844,823.

Government expenditures on Government railways.—The total capital expenditures of the Dominion Government on the Canadian Government railways from 1868 to March 31, 1930, including \$13,881,461 before confederation in 1868 and the cost of the Quebec bridge (\$21,706,664), amounted to \$501,638,525. The total operating deficit (excess of operating expenses over revenues) amounted to \$52,945,943.⁶

THE CANADIAN COMMERCIAL FLEET

GROWTH OF THE MERCHANT MARINE

The coastal and ocean-going power-driven commercial fleet of Canada, exclusive of the Great Lakes fleet, comprised 645 vessels

⁵ Does not include \$216,207,141 perpetual debenture stock and guaranteed stock of the Grand Trunk Railway, on which interest and dividends are guaranteed by the Dominion Government, nor guaranteed bonds held by the Government.

⁶ The Canada Yearbook, 1931, p. 669.

of 959,671 gross tons on July 1, 1931. The development of this fleet from 1920 is shown in the following table:

TABLE 104.—GROWTH OF THE CANADIAN COMMERCIAL FLEET

July 1--	Total fleet ¹	Power-driven vessels ¹	Sailing vessels ¹	July 1--	Total fleet ¹	Power-driven vessels ¹	Sailing vessels ¹
	Gross tons	Gross tons	Gross tons		Gross tons	Gross tons	Gross tons
1920.....	805,833	683,160	122,673	1926.....	981,965	878,516	103,449
1921.....	870,365	835,275	135,080	1927.....	935,088	835,200	99,888
1922.....	1,020,984	894,318	126,666	1928.....	868,670	871,965	91,685
1923.....	950,225	841,867	118,358	1929.....	1,020,571	932,328	88,243
1924.....	931,838	823,445	108,393	1930.....	1,009,851	919,464	90,387
1925.....	943,644	838,301	105,343	1931.....	1,042,766	959,671	83,095

¹ Vessels of 100 gross tons and upwards.

Source: Lloyd's Register of Shipping.

OWNERSHIP OF THE FLEET

About 68 per cent of this fleet is owned directly or controlled by the two great railway groups, the privately owned Canadian Pacific and the Government-owned Canadian National Railways. The three principal owners are shown in the following table:

TABLE 105.—PRINCIPAL OWNERS OF CANADA'S COMMERCIAL COASTAL AND OCEAN-GOING FLEET

Owner	Number of vessels	Gross tons
PRIVATELY OWNED		
Canadian Pacific Railway Co.....	40	85,533
Canadian Pacific Steamships (Ltd.) (operates trans-Pacific and trans-Atlantic services; entire capital stock owned by Canadian Pacific Railway Co.).....	24	399,310
GOVERNMENT OWNED		
Canadian National Steamships (Canadian Government Merchant Marine) (under same management as Canadian National Railways).....	43	225,307
Total.....	107	710,150

Source: Lloyd's Register of Shipping.

EMPLOYMENT OF THE FLEET

Canadian ships in 1930 carried approximately 15 per cent of the cargo in the inward and outward cargo movement at Canadian ports.

The relative proportion of British, Canadian, and foreign tonnage employed in Canadian trade for 1930 was:

TABLE 106.—VESSELS ENTERED AND CLEARED WITH CARGO IN CANADIAN PORTS, FISCAL YEAR ENDED MARCH 31, 1930

Nationality of carrying vessel	Entrances and clearances	Freight movement	Share of cargo carried
OUTWARD			
	<i>Tons register</i>	<i>Cargo tons</i>	<i>Per cent</i>
British.....	8,694,897	5,641,940	45.89
Canadian.....	3,420,499	1,439,591	11.71
Foreign.....	8,131,033	5,212,068	42.40
Total.....	20,236,399	12,293,589	100.00
INWARD			
British.....	8,847,709	2,564,716	30.28
Canadian.....	3,885,589	1,731,545	20.44
Foreign.....	7,325,184	4,174,846	49.28
Total.....	20,058,482	8,471,107	100.00
TOTAL			
British.....	17,532,606	8,206,656	39.62
Canadian.....	7,306,058	3,171,136	15.27
Foreign.....	15,456,217	9,386,904	45.21
Total.....	40,294,881	20,764,696	100.00

Source: Shipping Report of the Canadian Department of National Revenue (customs division), fiscal year 1930, p. 22.

THE GOVERNMENT-OWNED FLEET

The principle of Government ownership and operation of transportation facilities was not new in Canada when, during the closing years of the World War, the Government undertook to build and operate a commercial fleet; nor was the ownership and operation of railroads and ocean-going ships under one management an experiment, inasmuch as the Canadian Pacific had owned and operated ships in the trans-Pacific service since 1889 when the Canadian Pacific Railway Co. entered into its first mail contract with the Imperial Government, to which the Canadian Government contributed in part. Official reports on the Canadian Government Merchant Marine frequently refer to the great value of the service performed by the vessels in providing cargo for the Canadian National Railways.

The Canadian Government Merchant Marine was organized on the basis of an individual company for each vessel, the capital stock of which is owned by the Canadian Government Merchant Marine (Ltd.). By operating agreements with the various units the Canadian Government Merchant Marine (Ltd.) undertook to operate the vessels and carry separate accounts for each company and vessel.

CANADIAN NATIONAL STEAMSHIPS (LTD.) [CANADIAN GOVERNMENT MERCHANT MARINE (LTD.)]

In 1922 the Canadian Government Merchant Marine (Ltd.) came partly under the management of the Canadian National Railways, the head of the latter acting also as president and chairman of the former. In 1928 the number of directors of the Canadian Government

Merchant Marine (Ltd.) was increased to correspond to the directorate of the Canadian National Railway Co. with the object of having the two boards identical, and since then the Canadian Government Merchant Marine (Ltd.) has been operated under the name of the Canadian National Steamships (Ltd.).

Vessel equipment

The original plan contemplated 63 steel cargo vessels, to be built in Canadian shipyards. By January, 1922, 63 vessels had been built and 3 vessels had been transferred from the Department of Railways and Canals, making a total of 66 vessels of 390,581 dead-weight tons. Two of these had been lost, leaving 64 vessels of 378,237 dead-weight tons. By the early part of 1926 15 vessels had been sold at prices ranging from \$40,000 to \$140,000 per vessel. As of December 31, 1930, the fleet consisted of 30 vessels of 239,170 dead-weight tons.

In financing the construction of the fleet the arrangements were generally that as each vessel was completed it was sold to a separate company bearing the ship's name, the Government receiving as payment for the vessel demand notes covering the cost, secured by a first mortgage. Such notes bear interest at the rate of 5½ per cent. The stock of the individual company was all transferred to the Government, which exchanged that stock for an equal amount of stock in the Canadian Government Merchant Marine (Ltd.).

Financial returns

The trades maintained by the Canadian Government Merchant Marine (Ltd.) were extended to the United Kingdom and Europe, the West Indies, Australia and New Zealand, and the Orient. Some services were discontinued. Local services have been maintained with Newfoundland, through coastal services have been maintained on the Pacific to California, and intercoastal services have been maintained between the Pacific and Atlantic. A number of units were used on the Great Lakes for grain storage.

According to the reports of the operations of the Canadian Government Merchant Marine (Ltd.), the early services, based upon the vessel equipment in hand in 1920, resulted in a surplus of \$1,004,233 up to December 31, 1920, including depreciation charges. From that time, however, the operating losses, including interest charges and depreciation on the original cost of the vessels, have been as follows:

1921-----	\$3,047,635	1927-----	\$7,086,940
1922-----	9,649,479	1928-----	7,545,525
1923-----	9,368,670	1929-----	5,928,758
1924-----	8,836,609	1930-----	5,844,757
1925-----	7,667,513		
1926-----	6,687,221	Total-----	76,663,107

The deficit account as of December 31, 1929, was \$52,722,065. During 1930, cancellation of interest charges on advances and notes, cancellation of charges set up covering depreciation, and sale of one vessel resulted in a reduction of \$926,821, leaving a deficit account of \$51,795,244, to which the 1930 operating deficit is added, resulting in a deficit account of \$57,640,001. Among the assets as of De-

cember 31, 1930, was an item of \$45,538,692, the book value of the fleet. Reducing this by an accrued depreciation account of \$17,738,806 would leave a value of \$27,799,886, or \$116 per dead-weight ton.

CANADIAN NATIONAL (WEST INDIES) STEAMSHIPS (LTD.)

The Canadian National (West Indies) Steamships (Ltd.), operating under the same directorate as the Canadian National Steamships, is closely allied to the Canadian National Railways through identical directorate, owes its existence at least partially to the West Indies trade agreement, has a fleet comprising partly new vessels and partly vessels formerly belonging to the Canadian National Steamships. On February 24, 1930, this company offered a 25-year, 5 per cent bond issue in the United States and Canada in the amount of \$9,400,000, approximately the amount (\$9,633,306) of the book value of the fleet and slightly more than the company's note indebtedness (\$9,036,207) to the Royal Bank of Canada.

The Canadian National (West Indies) Steamships (Ltd.) is a development of services organized by the Canadian Government in conformity with the provisions of the West Indies trade agreement act of 1926. (See p. 461.) The organization completed its first year of operation as a separate entity on December 31, 1929.

Vessel equipment

As of December 31, 1929, the vessel equipment of the Canadian National (West Indies) Steamships (Ltd.) comprised 12 ships of 60,592 dead-weight tons. Five were ordered built in Great Britain by Cammell Laird & Co. (Ltd.), three 7,800 gross-ton vessels being ordered first, at a total cost of \$3,849,000,[†] or \$164 per gross ton. The seven remaining vessels were formerly a part of the fleet of the Canadian Government Merchant Marine (Ltd.) and have been taken over by the Canadian National (West Indies) Steamships (Ltd.) for operation under a trust agreement with the separate owning companies.

The vessel tonnage is carried at a book value of \$9,633,306 as of December 31, 1929. This represents principally the cost of the new vessels, the balance being made up of the present valuation of the seven vessels from the Government fleet, together with conversion costs of these ships for their present service.

Government guaranty of financing

Among the liabilities of the Canadian National (West Indies) Steamships (Ltd.), according to the first annual report, are notes payable to the Royal Bank of Canada, \$9,036,207; notes payable to the Government, \$577,316; other advances by the Government, \$388,832.

In February, 1930, a 5 per cent 25-year bond issue in the amount of \$9,400,000 was offered in New York and Canada. The issue is dated March 1, 1930, due March 1, 1955, and is uncallable. The entire issue is unconditionally guaranteed as to principal and interest

[†] Report of Trade Commissioner Walter J. Donnelly, Montreal, Sept. 16, 1927.

by the Government of the Dominion of Canada, by indorsement. The company's stock is owned by the Government.⁸

Financial returns

The Canadian National (West Indies) Steamships (Ltd.) submitted its first annual report on April 15, 1930, covering operations ended December 31, 1929. The operating revenue amounted to \$3,332,683. Operating expenses were \$3,780,524, resulting in a net operating loss of \$447,841, exclusive of depreciation and interest charges on notes and advances. There was \$227,315 charged to depreciation, and \$442,740 represents interest charges, making a total book loss for the year of \$1,117,896.

POSTAL SUBSIDIES AND NAVIGATION BOUNTIES

EASTERN CANADA-WEST INDIES SERVICES

The West Indies trade agreement act, 1926, as approved April 25, 1929, provided for the establishment of steamship services between Canada and Bermuda and West Indian ports, such services to be organized by the Canadian Government and contributed to by the various regions served.

Services required under the act are divided into two groups, the eastern and the western. The former embraces, besides Bermuda, the Leeward Islands, the Windward Islands, Barbados, Trinidad, and British Guiana. Fortnightly mail, passenger, and freight service is to be provided by vessels of 5,000 to 6,000 gross tons and not less than 12 knots speed, with an additional fortnightly freight service by smaller and slower vessels to certain of the ports.

The western group embraces, besides Bermuda, the Bahamas and Jamaica. Fortnightly mail, passenger, and freight service by vessels similar in size and speed to those of the eastern group is to be provided for these islands, alternating with a fortnightly freight service to Jamaica direct.

These services are now being carried on by the Canadian National (West Indies) Steamships (Ltd.).

The pertinent sections of the law are quoted below.

EASTERN GROUP

ART. IX. Subject to the ratification of the present agreement as hereinafter stated in Article XII, the Government of Canada will arrange for a mail, passenger, and freight steamship or motor-ship service, to come into effect as soon as possible, and in any case within 15 months after the date of the ratification of this agreement, between Canada, Bermuda, the Leeward Islands, the Windward Islands, Barbados, Trinidad, and British Guiana, on the following lines:

1. A fortnightly freight, passenger, and mail service from Canadian ocean ports all the year round, calling each way at Bermuda, St. Kitts, Nevis, Antigua, Montserrat, Dominica, St. Lucia, Barbados, St. Vincent, Grenada, Tobago, Trinidad, and Demerara.

2. The vessels shall be of from 5,000 to 6,000 tons gross, capable of maintaining an ocean speed of not less than 12 knots, and providing accommodation for 100 first-class, 30 second-class, and 100 steerage or deck passengers, and shall be provided with 'tween decks, and cold-storage accommodations as required, but not less than 10,000 cubic feet.

⁸ Moody's Marine Service, industrial section, Mar. 1, 1930, p. 1582.

3. In addition to the foregoing the Government of Canada will provide a fortnightly freight service with vessels of 4,300 tons or thereabouts dead weight and a speed of about 10 knots, from Canadian river ports in summer and from Canadian ocean ports in winter calling at St. Kitts, Antigua, Barbados, Trinidad, and Demerara.

ART. X. The Government of Canada will stipulate in any contract entered into for such steamship or motor-ship service that:

1. There shall be reasonable proportionate allocation of passenger and cargo accommodation between the colonies mentioned in Article IX. As regards traffic from British Guiana, space shall be reserved on each sailing from that colony for 100 tons of inter-colonial freight. Until otherwise arranged, first-class berths for 20 passengers between Demerara and Trinidad shall also be reserved on each northbound vessel until 24 hours after the arrival of said vessel at Demerara; 10 of the said berths being also reserved for passengers proceeding north of Trinidad.

Freight space and passenger accommodation shall be booked by the agents of the steamship company in order of priority of application.

2. There shall be no unfair differentiation in rates of freight against the smaller colonies as compared with the rates to and from larger colonies situated at a similar distance from Canadian ports. Freight rates are to be subject to the control of the Government of Canada.

ART. XII. Pending the establishment of such service the Government of Canada will use its best endeavors to maintain a fortnightly service on the existing lines.

The obligation of the Government of Canada to provide the steamship service referred to in Article IX is dependent upon ratification of this agreement by the colonies of the eastern group or by those of them whose ratification is by the Government of Canada deemed essential.

WESTERN GROUP

ART. XIII. The Government of Canada undertakes to provide as soon as possible, and in any case within 15 months after the ratification of this agreement as provided in Article XVI, a fortnightly mail, passenger, and freight service between St. Lawrence ports in summer and such Canadian ocean ports in winter as may be designated by the Canadian Government, and calling both ways at Bermuda, the Bahamas, and Kingston, Jamaica, alternating with a fortnightly freight service between the said Canadian ports and Kingston, Jamaica, direct.

1. Passenger steamers to be similar in size to those proposed for the eastern route, that is to say, from 5,000 to 6,000 gross tons, ocean speed 14 knots, accommodation for 100 first-class passengers, with 'tween decks, and refrigeration for about 70,000 stems of bananas, and also cold storage for Canadian meats, fish, butter, cheese, and other dairy products from Canada to the colonies and for fruit, green vegetables, etc., from the colonies to Canada.

2. Each of the freight steamers shall also have a speed of about 10 knots and refrigeration for about 50,000 stems of bananas.

3. A steamer operating on a fortnightly schedule connecting with the steamers specified in Article XIII-1 shall be supplied by the Government of Canada between British Honduras and Kingston, Jamaica, of about 1,000 tons, speed 10 knots, with accommodation for at least 20 first-class passengers, and cold storage.

ART. XIV. 1. On representations being made by the respective Governments of Canada and Jamaica, such Governments shall have the control of the allocation of space for the carriage of bananas.

2. If possible, arrangements will be made to have the eastern and western services connect at Bermuda.

3. The Government of Canada reserves the right to permit the vessels mentioned in Article XIII to make calls at any other ports not mentioned in this agreement, upon condition that regular weekly sailings to and from Kingston, Jamaica, are maintained.

ART. XVI. Pending the establishment of such services the Government of Canada will use its best endeavors to maintain a service every three weeks on the existing lines.

The obligation of the Government of Canada to provide the steamship services referred to in Article XIII is dependent upon ratification of this agreement

by the colonies of the western group or by those of them whose ratification is by the Government of Canada deemed essential.

ART. XVII. The rates of freight from Canada to Bermuda by the steamships operating under this agreement shall not exceed the rates charged to Nassau, Bahamas, and/or Kingston, Jamaica, in respect to the western group, or to Barbados, and/or Trinidad, and/or British Guiana in respect to the eastern group.

ART. XVIII. 1. Freight rates on all services shall be subject to the control of the Canadian Government. The government of any colony shall be at liberty at any time to make representations to the Canadian Government in respect to such rates, to which the Canadian Government shall give the fullest possible consideration.

2. There shall be reasonable proportionate allocation of passenger and cargo accommodation between the said colonies.

This agreement is to remain in force for 12 years after its proclamation, and thereafter until terminated by 12 months' notice given either by the Government of Canada or by the government of any of the said colonies; but in the latter case the agreement will remain in full force and effect as to any of the other colonies which has not given such notice.

CONTRIBUTIONS BY COLONIES

The colonies of the eastern group contribute toward such steamship service in the following amounts annually: Barbados, £5,000 (\$24,330); Bermuda, £1,500 (\$7,300); British Guiana, £8,500 (\$41,365); Leeward Islands, £2,500 (\$12,165); Trinidad, £9,000 (\$43,800); Windward Islands, £2,500 (\$12,165); total, £29,000 (\$141,125). If it is found impossible to call at Tobago, the contribution of Trinidad will be decreased by £1,500.

Of the colonies of the western group, Bermuda contributes £2,000 (\$9,700) annually, the Bahamas £2,000 (\$9,700), British Honduras £2,000 (\$9,700), and Jamaica £12,000 (\$58,400), a total of £18,000 (\$87,500).

The total contribution made to the Canadian Government by West Indian governments amounts to \$228,000 annually, which may be considered as an offset to any operating losses incurred in the maintenance of the services.

EFFECT OF WEST INDIES TRADE AGREEMENT ACT OF 1926

In considering the losses undertaken by the Dominion Government in the operation of the Canadian National (West Indies) Steamships (Ltd.) through the Canadian National Railways, which during 1929 amounted to \$1,117,896, it should be noted that as offset, in addition to the contributions of the various British territories toward this operation, the Dominion subsidies for steamer services to the West Indies have ceased.

At the time the West Indies trade agreement act was arranged the Dominion Government was subsidizing the Royal Mail Steam Packet Co. to the extent of about \$340,000 a year. For 1926 the expenditure was \$318,949. In 1927, this was reduced to \$180,000 and in 1928 terminated. Thus to the total contribution of the West Indies of \$228,000 should be added the saving in direct payments of \$340,000, or a total credit of approximately \$568,000. The net cost to the Dominion Government still remains greater than under the direct subsidy to the Royal Mail Steam Packet Co., but such

losses are made in the interest of Canadian vessels instead of other British vessels, and trade development may reduce the losses.

WESTERN CANADA-WEST INDIES SERVICE

In 1926 a subsidized service was established between Vancouver and the British West Indies by the privately owned Canadian Transport Co., the vessels calling at Port of Spain, Trinidad, and, if sufficient cargo offers, at any port or ports on the northeast coast of South America; and also, if cargo offers, at Barbados and at ports in the Leeward and Windward Islands. The Canadian Minister of Trade and Commerce stated in 1929⁹ that, due to this service, 86,000 tons of freight were carried from British Columbia to the West Indies, and that valuable lumber business had been developed. In connection with the estimates for subsidized services he said:

I contend that Canada, in view of her export trade in manufactured goods, rendered possible by the services, can well afford, where necessary, to subsidize transportation to every country in the world. * * * I do not believe that there is any form of government assistance which will be shown in the future to be of such importance to this Dominion as the assistance which we are giving to those who employ labor in the country, to find markets for their products in foreign fields.¹⁰

Eight to twelve sailings a year are to be made at intervals of four to eight weeks, according to the amount of cargo offering. Vessels employed are steamers or motor ships of not less than 7,000 tons dead weight.

The maximum annual subsidy is not more than \$48,800, payable at the rate of \$3,000 for each single trip from Vancouver to Trinidad, together with \$700 for every call at Jamaica and \$900 for every call at British Guiana. The budget estimates for 1931-32 provide \$39,840 for this service.

Canadian trade commissioners and their wives and children and Canadian commercial agents are carried free of charge, as in the case of services previously mentioned.

Through bills of lading are to be issued from any Canadian loading port to any ports in the British West Indies which may be reached by connecting lines from Trinidad. Mails are to be carried free of charge.

OVERSEAS SUBSIDIZED SERVICES

Besides the West Indies services just discussed, the Canadian Government subsidizes steamer services to Africa, South America, Australia, and New Zealand. As these subsidies in most cases are paid to other than Canadian vessels, they may be considered more nearly trade-route subsidies than a direct aid to Canadian shipping.

The Canadian Post Office Department pays trans-Pacific steamers \$1 per cubic foot for mails carried to trans-Pacific destinations. In addition to features described below, all contracts stipulate that payment of the subsidy is subject to the provision of the necessary funds by a vote of the Parliament of Canada.

⁹ Budget speech, House of Commons, Mar. 14, 1929.

¹⁰ Canadian House of Commons, Debates, Mar. 14, 1929.

SERVICES TO AFRICA

Since 1902 the Elder, Dempster Co., of Liverpool, has maintained subsidized services between Canada and South Africa at an average annual subsidy of about \$125,000 for monthly sailings. For the years 1926-27, 1927-28, and 1928-29 the annual estimates were \$100,000; for 1929-30, \$125,000; for 1930-31, \$150,000.¹¹ For 1931-32 the amount proposed in the budget estimates was reduced to \$120,000.

Sailings are from Montreal in summer and from St. John in winter, with calls at Cape Town and at not less than two other South African ports and extending each voyage to Beira, Portuguese East Africa. In addition to these calls, the contractors, at their own option, frequently call at Sierra Leone, West Africa, transshipping cargo there for West African ports. They also make optional calls at Lourenco Marques in Portuguese East Africa.¹²

The required sailings number 12; but this number is exceeded when the traffic demands, and such excess sailings receive no subsidy and are not required under the contracts. Equipment consists of vessels of not less than 5,000 dead-weight tons capacity and not less than 10 knots speed, and fitted with refrigerated space. Passenger accommodations are not required, although many of the vessels are equipped to carry a few passengers.

Mails are carried free from Canada to South Africa (one way). The contract provides against discriminations against shippers of Canadian goods and products, who shall have precedence for Canadian goods and products over all other shippers, and freight and passenger rates are subject to the approval of the Minister of Trade and Commerce. The contractors are also to furnish freight and traffic returns and other documents showing the volume and extent of the trade carried.

Canadian trade commissioners and their wives and children and Canadian commercial agents are to be furnished with free transportation.

In 1930 another contract was concluded with this company for services to British East Africa, under the terms of which monthly sailings were to be made from Montreal in summer and from Halifax or St. John in winter, with calls at the Azores (contractors' option), Gibraltar, Malta, Alexandria, one port in Palestine, Port Said, Suez, Aden, Mombasa, Tanga, Zanzibar, and Dar-es-Salaam, also at Port Sudan. The vessels in this service were to be of 6,000 dead-weight tons and 10 knots speed. In other respects the contract conditions were similar to the South African contract.

The subsidy was to be \$13,750 per trip, or at the rate of \$165,000 annually. Commercial Attaché Lynn W. Meekins reported on March 21, 1931, that this contract had been suspended until January, 1932, owing to adverse economic conditions. The budget estimates for 1930-31 provided \$96,250 for this service, and the estimates for 1931-32, \$41,250.

¹¹ Hon. James Malcolm, Minister of Trade and Commerce, budget speech, Canadian House of Commons, March, 1929; also budget estimates for 1930-31.

¹² Report of Commercial Attaché Lynn W. Meekins, Ottawa, Feb. 13, 1931.

SERVICE TO NEW ZEALAND

For many years steamship services have been maintained between Vancouver and Australia on a subsidized basis by the Canadian Australian line of steamers of the Union Steamship Co. of New Zealand, the service being opened in 1892.

There are 13 sailings a year. The contract specifies that the service is to be performed by the *Niagara* and *Aorangi* or substitute steamers or motor ships approved by the Minister of Trade and Commerce. The vessels employed are warranted to be of the highest class and to be fitted with the most approved propelling and other machinery, with ample saloon and cabin accommodation for at least 130 passengers. They are also equipped with cold-storage facilities.

Passenger and freight rates are subject to the approval of the minister. The freight rates to New Zealand may not at any time exceed the current rates charged by the Union Steamship Co.'s mail steamers from San Francisco to New Zealand, and passenger rates to New Zealand shall not exceed the passenger rates charged during the same period in the opposite direction. All passenger and freight rates are subject to the approval of the minister.

Mails are carried free of charge to the Post Office Department of Canada, and the contractors have to provide suitable accommodation, when required, for sorting and making up the mails on board the contract steamer, including, if required, first-class accommodation for not more than two officials of the Canadian Government. The value of the free-mail-carriage provision was estimated by the Minister of Trade and Commerce to be \$68,000.

Canadian trade commissioners, and their wives and children, and also Canadian commercial agents must be granted free transportation upon the request of the minister and when the said trade commissioners or commercial agents are traveling upon official duties or being transferred from one official post to another.

The annual subsidy is \$100,000, in addition to which the contractors receive £20,000 per annum from the Government of New Zealand (reduced to £18,000 for 1931-32) as a subsidy toward that portion of the service from New Zealand to Canada. The contractors also receive about \$25,000 per annum as subsidy from the Government of Fiji. The contracts between the steamship company and the Governments of Canada and New Zealand run concurrently, and in each case the present contract was to expire on March 31, 1931. The budget estimates for 1931-32 provide \$80,000 for this service.

In addition to the direct contribution of approximately \$25,000 annually to the Canadian-Australian line, the Fiji Government exempts the Union Steamship Co. from light dues estimated at \$14,500 per year. The contract is renewed annually. Recent discussion by Fiji authorities indicates that the light-dues exemption will be discontinued. It is also desired that the ships remain in the port of Suva at least six hours during the period 8 a. m. to 9 p. m. The reasons stated for the reductions of concessions are that the increased earnings through increased freight and passenger traffic justifies the decrease. Further, a United States line (the Matson Line) now offers alternative mail service.¹²

¹² Report of Consul Quincy F. Roberts, Suva, Fiji, Nov. 15, 1929.

The period of transit of the mails between Vancouver and Auckland is not to exceed 18 days, including one day's detention at Honolulu. If the mails are not conveyed within that time, a deduction of \$180 is to be made for every complete period of 24 hours occupied in excess of 18 days.

No discrimination is to be made against any Canadian port, railway, merchant, or shipper.

SERVICE TO AUSTRALIA AND CHINA

In 1929 a new subsidized service was inaugurated between British Columbia and Australia by Canadian vessels primarily for the purpose of providing additional facilities for the export lumber trade.

Consul Harold S. Tewell, Vancouver, reported December 11, 1928, that the Canadian Government Merchant Marine (Ltd.) maintained regular cargo services between Vancouver and Australia until 1924, when the service was withdrawn owing to lack of return cargo for Canada. It was claimed that with the abandonment of the service the Canadian lumber exports to Australia fell off from one-third of Australia's lumber requirements in 1923 to one-sixth or one-seventh during the following years. Accordingly, the Canadian lumber interests made representations to the Dominion Government with a view to establishing preferential tariffs in favor of Canadian lumber going to Australia and for additional steamer services for lumber movement.

It was stated that during the four years in which the Canadian Government Merchant Marine (Ltd.) maintained services to Australia British Columbia supplied 30, 42, 36, and 33 per cent, respectively, of Australian imports of Douglas fir, while in the four years following the discontinuance of the service British Columbia sales to Australia dropped to 17, 13, 15, and 13 per cent, respectively.

British Columbia lumber interests organized the Australian British Columbia Shipping Co., capitalized at \$200,000 and said to be a subsidiary of the H. R. McMillan Co., of Vancouver, a leading Pacific Coast lumber exporter. The company operates a service between British Columbia and Australia and/or China, the vessels sailing from Vancouver and also from three or more of the following loading ports in British Columbia: Barnet, Dollarton, Nanoose Bay, Chemainus, Victoria, Port Alberni, New Westminster, and Fraser Mills, as may be required, sailing direct to Sydney or Melbourne, Australia, or to a port or ports in China, at the option of the minister.

The contract requires that 12 sailings be made each year. Vessels employed are steamers or motor ships of not less than 7,000 dead-weight tons, capable of carrying approximately 4,000,000 feet board measure of lumber.

The annual subsidy is \$92,400, payable at the rate of \$7,700 for each single trip, and the contract will expire on July 31, 1932. This is a 1-way service only.

Canada's budget estimates for 1931-32 show a reduction in the allowances for this service, the amount being curtailed from \$92,400 to \$73,920.

The usual stipulation for the free transportation of Canadian trade commissioners and others is included in this contract. Freight

rates are subject to the approval of the minister, and the contractors undertake not to belong to the Trans-Pacific Conference.

Mails are to be carried free of charge, as may be required by the Post Office Department.

TOTAL GOVERNMENT EXPENDITURES FOR SUBSIDIES

The subsidies voted by the Dominion Government for mail services, both domestic and overseas, have been greatly reduced since the World War. Thus an annual appropriation of \$1,000,000 for trans-Atlantic services to Great Britain and \$375,000 to the Canadian Pacific Railway for trans-Pacific services in 1914-15 have been discontinued in favor of mail payments on a weight basis. In addition, an annual subsidy of \$200,000 for trans-Atlantic services to France has been discontinued. The total budget estimate for 1914-15 was \$2,922,367, while in 1928-29 the estimate was \$844,591. This was increased to a total of \$1,394,077 for 1930-31 but again reduced to \$1,052,220 for 1931-32.

Expenditures by the Dominion Government for subsidized services, both local and transoceanic, are shown in Table 107.

TABLE 107.—EXPENDITURES BY CANADIAN GOVERNMENT FOR SUBSIDIZED SERVICE, 1898-1932

Fiscal year ¹	Total appropriations	Canada and West Indies or South America, or both	Canada and South Africa	Canada and New Zealand or Australia, or both	Canada and China and Japan	Canada and France	Canada and Manchester, England	St. John and Glasgow	St. John and Dublin and Belfast	St. John, Halifax, and London	Canada and Mexico and Atlantic and Pacific Oceans	Halifax, St. John, Newfoundland, and Liverpool	Canada and Great Britain	Local and all others
1898	\$589,773	\$78,000		\$121,667	\$73,000			\$7,500	\$6,000	\$25,000		\$32,143	\$138,072	\$108,391
1899	684,056	78,000	\$5,000	121,667	73,000		\$28,000	7,500	5,250	25,000		20,000	134,610	88,029
1900	699,832	78,000		121,667	73,000		35,613	7,500	6,750	33,868		14,714	139,424	91,796
1901	629,198	80,700		122,667	73,000		38,284	7,500	7,500	25,000		17,500	152,303	105,744
1902	624,956	64,331		121,667	72,635	\$16,666	35,000	7,500	3,000	18,750		18,000	157,900	109,507
1903	765,636	79,500	97,707	131,026	73,000	25,000	35,000	7,500	3,750	22,500		20,000	172,083	98,570
1904	851,748	79,500	146,000	116,800	73,000	25,000	35,000	15,000	2,250	38,500		20,000	175,000	125,698
1905	1,027,075	65,700	146,000	194,667	73,000	22,222	35,000	15,000	3,000	36,250		20,000	239,275	176,961
1906	1,227,660	65,700	133,833	186,975	73,000	122,222	35,000	15,000	6,000	42,250	\$54,905	20,000	282,391	190,284
1907	1,128,877	48,012	97,333	166,529	54,750	88,889	26,250	13,500	5,250	33,750	40,419	15,000	373,916	165,279
1908	1,690,384	63,510	146,000	224,860	72,270	116,666	35,000	12,750	3,000	32,600	91,667	20,000	568,570	208,591
1909	1,684,683	65,700	146,000	220,286	121,302	130,555	35,000	12,000	2,250	40,000	91,667	20,000	565,000	234,923
1910	1,736,373	65,700	146,000	192,189	121,667	147,222	34,781	11,250	3,750	40,000	104,167	20,000	596,427	253,220
1911	1,918,941	65,700	146,000	280,500	120,855	193,750	35,000	9,000	5,250	40,000	113,542	20,000	600,000	288,335
1912	1,904,513	65,700	146,000	300,509	120,855	174,488	35,000	9,375	3,000	40,000	125,000	20,000	555,657	308,929
1913	1,952,525	94,939	146,000	300,509	121,666	198,484	35,000	11,250	6,000	38,661	81,250	15,583	553,766	346,417
1914	2,383,687	161,602	146,000	305,509	118,850	195,458	35,000	10,875	6,750	40,000	4,167	20,000	951,484	387,992
1915	2,162,633	330,897	146,000	301,890	137,019	105,428	35,000	7,450	7,500	30,354		17,167	645,899	398,020
1916	1,768,757	340,666	146,000	297,176		88,669	34,271	7,125	7,500	18,750		13,500	421,276	393,824
1917	1,690,682	340,666	146,000	273,842		375,000	34,271	6,000	2,625	18,750		16,000	402,762	374,666
1918	1,853,320	334,115	85,167	215,509		343,750							502,739	372,040
1919	1,391,650	228,748	60,853	189,657		180,992							424,323	313,002
1920	1,632,906	340,667	133,833	194,693		367,187							220,345	367,176
1921	1,094,509	327,564	146,000	264,042										356,303
1922	1,105,896	340,667	133,833	127,162		88,229								416,005
1923	1,070,684	340,667	121,667	119,633										488,717
1924	1,105,087	321,705	146,000	130,509										506,873
1925	1,055,643	335,154	125,000	84,615										510,874
1926	1,078,038	318,949	100,000	100,000										559,089
1927	1,008,999	180,333	100,000	115,385										613,281
1928	844,591		109,000	100,000										644,581
1929	1,026,375	100,000	125,000	103,183										698,192
1930	1,083,436	110,000	114,583	161,600										687,253
1931	1,276,050	156,000	124,250	192,400										681,400
1932	1,052,220	135,840	161,250	153,920										601,210

¹ Fiscal years ended June 30, 1898-1906, and Mar. 31, 1907-1932.

² Canada Yearbook shows this total as \$799,286.

³ Nine months.

⁴ Includes East Africa.

Sources: Canada Yearbook for figures up to 1930; budget estimates for figures for remaining years.

CANADA

The grouping shown as "Local and all others" comprises 47 services of domestic or local character between regions accessible only by water or where mails may be expedited by such service. In amounts these items range from \$400 to \$85,000 annually.

PREFERENCES AND RESTRICTIONS

RESERVATION OF THE COASTING TRADE

The following statement on the reservation of the Canadian coasting trade to Canadian or British vessels was prepared by Assistant Trade Commissioner A. H. Thiemann, Ottawa, June 5, 1929:

The coasting trade of Canada is governed by Part XVI of the Canada shipping act, sections 932 to 940, Revised Statutes of Canada, 1927, and the regulations which have been issued under these laws. Although coasting trade is included in the Canada shipping act, laws and regulations concerning it are administered by the Department of National Revenue rather than the Department of Marine and Fisheries.

By "the coasting trade of Canada" is meant the carriage by water of goods or passengers from one place in Canada to another place in Canada. "British ships" are all ships belonging wholly to persons qualified or entitled to be owners of British ships under the merchant shipping act, 1894, or any other similar act of the Parliament of Great Britain.

Foreign-built British ships, whether registered in Canada or elsewhere as a British ship, must obtain a license from the Minister of Revenue before being allowed to engage in the coasting trade of Canada. This license is issued upon application and upon the payment of a duty of 25 per cent ad valorem on the fair market value of the hull, rigging, machinery, boilers, furniture, and appurtenances of the ship. Foreign-built vessels captured or seized during the World War by British forces and condemned as prizes of war, or ceded by enemy states to Great Britain by the Reparation Commission under the peace treaties following the war, and placed on British registry, are regarded as British-built ships under this part of the customs tariff and as such are entitled to engage in the coasting trade of Canada without the payment of duty.

No goods or passengers may be carried by water from one Canadian port to another except in British ships, the penalty for infraction being a fine of \$400 and forfeiture of the goods carried. The collector of customs may detain such ships until the penalty is paid or until security for payment has been given to his satisfaction. A penalty of \$400 must also be paid by the master of any steam vessel not a British ship used for towing a ship or raft from one place in Canada to another, except in case of distress. Penalties under this part of the Canada shipping act may be recovered and enforced in the manner provided by the customs act.

The Governor in Council has the power to suspend the coasting laws for a specified period, either throughout Canada or in any specified Canadian waters. Foreign ships may also be privileged to operate in the coasting trade of Canada under section 939, which reads:

"Where, by treaty made before the thirteenth day of May, one thousand eight hundred and sixty-nine, Her late Majesty, Queen Victoria, agreed to grant to any ships of any foreign state such rights or privileges in respect of the coasting trade of Canada, those rights and privileges shall be enjoyed by those ships for so long as Her late Majesty agreed, or His Majesty the King may hereafter agree, to grant them."

The Governor in Council may grant yearly coasting licenses to British vessels navigating the inland waters of Canada above Montreal. A fee of 50 cents for each license may be directed. The master of a vessel navigating these waters not having a coasting license must pay a fee of 50 cents if his vessel is not over 50 tons burthen and \$1 if the vessel is more than 50 tons burthen to the collector of customs upon entering any port in Canada and a like fee upon making clearance. These fees may be reduced or readjusted by the Governor in Council, but they may not be increased. Vessels merely passing through a Canadian canal without breaking bulk are not liable to these fees.

In the autumn an order in council is usually issued allowing United States vessels to take grain at one Canadian port, to store it through the winter, and to unload it at a Canadian port in the spring. Many American shipowners take advantage of this privilege. This privilege is also extended to all countries which have made most-favored-nation treaties with Canada.

EXEMPTION FROM FISCAL CHARGES

As a member of the general system of imperial preference that exists between the component parts of the British Empire, Canada plays an important rôle. The policy of preferential Empire duties instituted by Canada on September 24, 1897, has been extended under various agreements so that preference now covers many British products.

PREFERENTIAL RAILWAY RATES

The maritime freight rates act of 1927 is a railway measure directly, affects ocean freights indirectly, and takes its title from the Maritime Provinces in which it is effective. The purpose of this law is to give certain statutory advantages to persons and industries in the three Maritime Provinces of New Brunswick, Nova Scotia, and Prince Edward Island through approximately 20 per cent reduction in railway-freight rates on what, for the purpose of the act, were designated as the "eastern lines" of the Canadian National Railways. The territory included also part of Quebec, comprising lines extending from the southern provincial boundary near Courchesne to Diamond Junction and Levis.

The 20 per cent reduction in freight rates applies in certain preferred movements (sec. 4) as follows:

- (a) On local all-rail traffic between points on the eastern lines;
- (b) On all-rail westbound traffic beyond Diamond Junction or Levis a reduction of 20 per cent on the proportion of the total charge represented by the movement over the eastern lines;
- (c) On overseas export traffic the reductions apply from points in the eastern lines to an ocean port.

The reduced rates do not apply to (sec. 5):

- (a) All-rail traffic outward or inward to or from the United States;
- (b) Eastbound traffic from points within Canada beyond the eastern lines to points within the eastern lines;
- (c) Import traffic into Canada originating overseas;
- (d) On passenger or express movement.

The rates are defined under section 7 as statutory rates and are not based upon the principle of fair return. Accordingly all accounts of the Canadian National Railways for the eastern lines are kept separately, and in case of a deficit on these lines such deficit is included in the budget estimates submitted to Parliament on behalf of the Canadian National Railways at the first session of Parliament following the close of the fiscal year. The eastern lines therefore include as revenue only the actual freight received under the reduction. During the period July-December, 1927, the eastern lines reported a loss in revenues due to the reductions in rates of

\$931,810.¹⁴ For the year ended December 31, 1929, the contribution of the Government under the 20 per cent reduction was \$2,438,075.¹⁵

Other railways operating in the select territory are allowed to reduce their rates similarly and bill the Board of Railway Commissioners of Canada for the difference in freight receipts due to such reduction. These bills are included in the revenues of such railroads, and there is no reduction in revenues due to the effects of the act. Such bills are met by separate appropriations by the Parliament. For the six months, July-December, 1927, \$421,655 was paid to privately owned railways under the provisions of the act.

¹⁴ Canada Yearbook, 1929, p. 656.

¹⁵ Select Standing Committee on Railways and Shipping, Minutes No. 3, May 15, 1930.

CHILE

ECONOMIC DEVELOPMENT AND SHIPPING

Consideration given by the Chilean Government to its national shipping during the past few years has resulted in several measures of indirect and direct aid to the Chilean merchant marine, the last being a law which became effective January 1, 1930, providing subsidies for transportation services from Chile to Argentina, Uruguay, and Brazil by way of the Strait of Magellan. The policy of Government aid in the development of shipping in Chile is not new; for a century the Government has offered concessions in the development of water communications between the various communities of the 2,700-mile seacoast.

NATURAL CONDITIONS AFFECTING SHIPPING

Its very shape makes of Chile a nation dependent upon water communication. Walled off from the Atlantic and from the Argentine plains by the lofty cordillera of the Andes, and almost cut off on the south by the channels and fjords of the Magellan territory, the Republic is also difficult of access from the north because of the Atacama desert.

Chile does not have dominions or protectorates. It owns the San Felix, Juan Fernandez, and Easter Islands about 350 miles west of the continent, but their commerce with the mainland is so small that no specific mention is made of them in the navigation laws. They are not ports of entry for foreign vessels, and concessions for supplying the few inhabitants are granted to certain firms, which also transport the products of the islands.

POLITICAL CONDITIONS AFFECTING SHIPPING

From earliest times Chilean trade was limited to Spanish ships through a decree issued by the Viceroy of Peru under orders from Spain that all transportation of merchandise and arms "shall henceforth be made on His Catholic Majesty's galleons only." The Governor of Chile was authorized to permit local owners to trade along the Chilean coast only. The Peruvian earthquake of 1685 ruined agricultural prospects in that country for a time and created a market for Chilean grain and for the carriage of the grain. Later there was an influx of French tonnage following a trade agreement between France and Spain, afterwards withdrawn.

With the establishment of Chile's independence in 1810 the Government junta decreed: "From this date the ports of Valparaiso, Talcahuano, Coquimbo, and Valdivia are open to free commercial intercourse with foreign powers and allies and friends of Spain as well as the neutral countries."

MEASURES IN AID OF SHIPPING

The principal general measures in aid of national shipping were taken by the Chilean Government during the decade 1920-1930. In this respect five general laws were promulgated:

1. Reservation of Chilean coastal trade to vessels of Chilean nationality, by law No. 3841 of February 6, 1922, with subsequent amendments;
2. Coal-carrying bounties to Chilean vessels according to law No. 4248 of January 9, 1928;
3. Nitrate carrying bounties to Chilean vessels according to decree No. 4281 of October 6, 1928;
4. General financial guaranties for Chilean vessels operating through the Panama Canal, according to law No. 4249 of January 9, 1928;
5. General financial guaranties for Chilean vessels operating to Argentina, Uruguay, and Brazil by way of the Strait of Magellan, law No. 4602 of June 18, 1929, effective January 1, 1930.

These several measures are discussed in later pages.

THE CHILEAN COMMERCIAL FLEET

As far back as 1821 an attempt was made to introduce steam navigation in Chile. In that year an English vessel was brought to Valparaiso. A year earlier the Chilean Government had agreed to a proposal of a citizen of the United States to bring a steamboat to Chile in return for a monopoly of this type of navigation in Chilean waters for 15 years. The only requirement was that a number of Chilean officers and sailors should be employed. Nothing came of the arrangement.

A citizen of Massachusetts, William Wheelwright, was the founder of steam shipping in Chile and of what later became the present Pacific Steam Navigation Co., which for nearly a century has been prominently associated with Chilean water-borne commerce. Until about 1870 the vessels were under Chilean registry and since that time under British registry. Mr. Wheelwright promoted the company from 1825 to 1840, during which time he was granted, by a law of August 25, 1835, a 10-year monopoly of steam navigation. By 1840 the first two steamers were placed in service, backed by capital part of which was subscribed in South America and the remainder in Great Britain.

GROWTH OF THE MERCHANT MARINE

The following table, based upon Lloyd's Register data, is an analysis of Chile's commercial tonnage in vessels of 100 gross tons or more:

TABLE 108.—GROWTH OF THE CHILEAN COMMERCIAL FLEET

July 1—	Total fleet †	Power-driven vessels †	Sailing vessels †	July 1—	Total fleet †	Power-driven vessels †	Sailing vessels †
	Gross tons	Gross tons	Gross tons		Gross tons	Gross tons	Gross tons
1913.....	145,252	108,834	36,418	1923.....	171,958	163,634	8,324
1914.....	139,792	108,491	31,301	1924.....	181,092	161,011	20,081
1915.....	125,917	96,473	29,444	1925.....	185,758	165,900	19,858
1916.....	128,592	100,320	28,272	1926.....	179,712	164,080	15,632
1917.....	119,714	92,820	26,894	1927.....	162,378	151,695	10,683
1919.....	101,647	82,812	18,835	1928.....	170,864	159,568	11,296
1920.....	103,788	88,612	15,176	1929.....	154,563	144,420	10,143
1921.....	113,447	99,667	13,880	1930.....	193,131	184,973	8,158
1922.....	131,401	121,122	10,279	1931.....	184,298	180,115	4,183

† Vessels of 100 gross tons and upwards.

Source: Lloyd's Register of Shipping.

Chile has 40 vessels of more than 2,000 gross tons, 23 of which exceed 3,000 gross tons.

PROPOSED FUSION OF NATIONAL COMPANIES

According to a report drawn up by a special Government commission, Assistant Trade Commissioner Orion J. Libert, of Santiago, advises under date of November 22, 1930, a proposal was made and presented to various Chilean shipping interests recommending the fusion of their companies into a national organization. The new organization practically will involve the fusion of all Chilean shipping companies and have the monopoly of coastal freights.¹ In addition, the Government holds in prospect an arrangement to be made with "Cosach" (Chilean nitrate combine), which might be given preferential treatment for transportation of nitrate.

Regarding the significant features of the projected fusion, the Minister of Foreign Affairs and Commerce stated that this merger will eliminate competition between the existing companies and permit services to every port in the country with fixed itineraries. In its announcement the Government stressed the point that the combine will in no case be authorized to raise present passenger and cargo rates, which will be studied, fixed, and controlled by the state. The Government will also actively participate in this new entity in order to assure its efficient operation. In this connection the Government intends to organize a combination land and maritime transportation system to facilitate and lower the cost of transportation of merchandise both within and out of the country.

ESTIMATED VALUE OF NATIONAL FLEET

It was considered advisable to estimate the value of each ship which will compose the fleet of the new company. Information on this subject was requested from the various companies, but as only a few replied the commission made an estimate of the values from balance sheets published by these companies.

¹ It is to be remembered that the laws of 1922 and 1927 reserved coastwise shipping to the national mercantile marine.

Based upon that analysis the following represents the value of the vessels:

TABLE 109.—VALUATION OF NATIONAL MERCHANT MARINE

Item	Pesos	Equivalent in United States currency ¹
Value of share or contribution of those companies which furnished information requested.....	91,371,458	\$11,116,250
Estimated value of contribution as taken from the balance sheets published by those companies which failed to furnish the requested data.....	14,500,000	1,764,070
Estimated value of contribution of those companies which did not furnish data nor publish balance sheets.....	13,220,000	1,608,345
Total value of ships.....	119,091,458	14,488,665
Divided as follows:		
New ships purchased from shipyards.....	37,000,000	4,501,420
Secondhand ships.....	82,091,458	9,987,245

¹ Converted at the par rate of \$0.12166 to the peso.

As most of the minor firms informed the commission that they would be obliged to liquidate their respective businesses, the Government appointed a subcommittee to determine the best means of reconciling conflicting interests. Taking into consideration that general business conditions have in any case threatened them with difficult problems to solve, it was proposed that the value of the second-hand vessels be placed at 50 per cent of the figure given in the above statement. On this basis the value of the new company would be: Ships less than 5 years old built at shipyards in accordance with needs of the coastal service, 37,000,000 pesos (\$4,501,420); second-hand ships, 41,045,729 pesos (\$4,993,620); total, 78,045,729 pesos (\$9,495,040).

REDUCTION OF TONNAGE—GOVERNMENT LOANS

Concluding, the assistant trade commissioner said:

It is interesting to note that the total cargo handled in 1929 was 794,619 metric tons. With the belief that cargo to the north of Chanaral will fall off by 50 per cent after the "Cosach" is organized, the total cargo northward is estimated at 595,020 metric tons, which would require only half of the tonnage now available for the purpose. Accordingly, the Government considers it imperative that the national shipping interests should be given preference in the handling of nitrates for the "Cosach."

As there would be a surplus of 30,000 gross tons, the proposed new company will be required to reduce its tonnage by withdrawing some 13 or more of the older ships from service. On this basis it is calculated that there will be a gross profit of 13,350,000 pesos (\$1,624,160 at par), taking into account a State subsidy of 4,000,000 pesos (\$486,640). With half in cash and half in shares, the capital of the new company is given at 39,022,864 pesos (\$4,747,520), or half the inventory value of its property.

For the payment of 50 per cent of current debts, it will be necessary to obtain a loan from the Government of 40,000,000 to 45,000,000 pesos, payable within 25 years, at 6 per cent interest. In addition, an annual reserve of 5,000,000 pesos would be required for writing off the depreciation of the whole fleet covering a period of 16 years.

Of particular interest are the recommendation of the commission that the transportation of passengers between Chilean ports be reserved to national shipping and the suggestion that special arrangements be made with foreign companies at present operating at the various Chilean ports, to enable them

to continue their shipping service. The commission also proposed that legislation be passed requiring at least 75 per cent of the capital of the new company to be held by Chileans.

POSTAL CONTRACT SERVICES

CONTRACT OF 1921

The Pacific Steam Navigation Co. was for many years granted a postal subsidy by the Chilean Government in return for the maintenance of a regular fortnightly service between Liverpool, Valparaiso, and Callao. Completion of the Transandine Railway from Valparaiso and Santiago to Buenos Aires provided a much expedited mail service to and from Europe and changed the nature of the Chilean subsidy to this company. The opening of the Panama Canal in 1914 did not materially reduce the period of mail transit between Valparaiso and New York, as formerly the mail was transferred across the Isthmus of Panama, as were the European mails. The mails between Chile and the United States were carried by the Grace Line, which received varying amounts for the services.

In 1921 the Chilean Government concluded a 5-year contract with the Pacific Steam Navigation Co., under which the company agreed to carry mails free of charge by way of the Strait of Magellan or by the Panama Canal from Chilean ports to Liverpool; and to grant a rebate of 25 per cent in passenger fares to members of the Chilean Army or Navy or civil service between Valparaiso and Liverpool or intermediate ports and a 15 per cent rebate from Cristobal and New York. The Chilean Government received a rebate of 25 per cent on the fares it paid for immigrants and colonists between Liverpool and Valparaiso and intermediate ports and a reduction of 25 per cent on the freight rates for the Government cargo so carried.

In return for these concessions the Government agreed to give the company preference in all such forms of transportation, also prompt dispatch, the use of the Government dry docks at 50 per cent reduction on usual rates, and preference in the use of cranes.

NAVIGATION BOUNTIES

VESSELS OPERATING THROUGH PANAMA CANAL

Following the enactment of coastal-restriction laws in 1922 (see p. 483) little was done until 1927 toward encouraging Chilean vessels to enter the foreign trades. Two or three Chilean companies maintained services to Peru and Ecuador, to Argentina, and to New York, the most important of these being the South American Steamship Co. (Compañía Sud Americana de Vapores).

In the early part of 1927 the South American Steamship Co. disposed of its two principal vessels, the *Teno* and the *Aconcagua*, to the North German Lloyd. During progress of the negotiations Government objection to the sale developed, based upon the loss to the Chilean merchant marine of its two largest units, which had been purchased by the South American Steamship Co. for 42,000,000 pesos (\$5,050,000). An attempt was made to enact a subsidy bill in favor of the company, but this failed to pass.

The German purchasers refused to accept delivery on the ground that the vessels were not up to specifications, and the sale fell through. The reported sale price was £500,000 sterling for the two vessels.

LAW OF JANUARY 9, 1928

In the meantime official recognition of the situation had developed to a point where on July 20, 1927, the Government appointed a commission to study and make recommendations for the further development of the Chilean merchant marine. The commission's findings and recommendations were drafted into law based largely upon the costs of transiting the Panama Canal—Law No. 4249 of January 9, 1928, published in the *Diario Oficial* of January 14, 1928, the broad provisions of which are:

1. The President of the Republic is authorized to invest up to 2,000,000 pesos (\$243,000 at par) annually for 20 years in subsidizing Chilean shipping companies which have maintained, or which will maintain, for more than two years regular services through the Panama Canal, such subsidy to be regulated in proportion to the quantity of cargo carried.

2. After allowing operating costs, including dividends up to 10 per cent on shares actually issued by the company, the company and the Government proportionally distribute the remainder between the company and the State, reckoning that the State possesses a right equivalent to a nominal value of shares equaling ten times the subsidy granted to the company. The share of the State will be devoted to the amortization of the subsidies paid to the company.

3. The President of the Republic is authorized to contract, for account of the companies, loans that may be required for the purchase of vessels to be employed in foreign or coastal commerce. These loans will be guaranteed, by mortgages on the vessels or other property, up to 60 per cent of the value of the vessel.

4. Consular fees are increased by 10 per cent for the purpose of raising the funds with which to carry out these provisions.

Regulations covering basic law

The basic law provided for the issuance of detailed regulations for its operation, the principal provisions of which follow.²

1. The South American Steamship Co. (*Compañía Sud Americana de Vapores*) is recognized as the only service qualified for the benefits of the law up to the time of issuance of the regulations.

2. The subsidy provided in article 1 of the basic law is payable to national shipowners at the rate of 40 pesos per ton for the first 1,000 tons or fraction, and 20 pesos per ton for each ton in excess of 1,000 tons, of cargo transported through the Panama Canal in either direction and whether going to a foreign or to a home port. The unit is the cargo ton of 1,000 kilos (2,204.6 pounds) or 1 cubic meter (35.31 cubic feet).

3. For accounting purposes depreciation is allowed at 5 per cent on seagoing vessels and equipment, while small boats and shore

² Documentos Oficiales relativos a la Ley 4249 de 9 de Enero de 1928. Ministerio de Hacienda.

equipment are allowed 10 per cent. Reserve funds must be created and may not include more than 10 per cent of the profits for joint-stock companies nor more than 20 per cent for private companies.

4. The most important of the details covering the loan provisions include (a) the requirement that new vessels must be provided with refrigerated space of not less than 5 per cent of the total capacity of the ship; (b) loans secured by mortgage on vessels in service may be up to 60 per cent of the appraised value of the respective vessels if less than 8 years old, up to 50 per cent for vessels 8 to 10 years old, and up to 25 per cent on vessels from 10 to 25 years old; (c) on new construction amounts up to 70 per cent of the contract price may be loaned; (d) loans may be made for a period of 20 years on vessels less than 8 years old, and for 5 years on vessels from 10 to 20 years.

On June 19, 1931, Assistant Commercial Attaché Harold M. Randall reported the suspension of the South American Steamship Co.'s service between Valparaiso and New York with the *Teno* and the *Aconcagua*, due to lack of sufficient cargo to justify the run and to the resolution on the part of the Chilean Government to effect economies. The suspension was confirmed by Mr. Randall on June 26, 1931, and was stated to be of a temporary nature pending increase of commerce to a point where the service would be profitable.

VESSELS OPERATING THROUGH MAGELLAN STRAIT

Law No. 4602 of June 18, 1929, granting subsidies to Chilean navigation companies operating through the Strait of Magellan was published in the *Diario Oficial* of July 15, 1929. This law provides for the expenditure of 2,000,000 pesos (\$243,320 at par) annually for 20 years in promoting interoceanic navigation between Chile and Argentina, Uruguay, and Brazil with regular lines, the expenditures being based upon the amount of cargo carried.

Funds for the purpose of making this law effective are not dependent upon the proceeds from a special discharge tax on merchandise of foreign origin unloaded in Chilean ports, as was the case with the law of January 9, 1928, but under article 4 such provision is to be included annually in the budget law of the country. The translated text of the Law No. 4602 follows.

LAW OF JUNE 18, 1929

ARTICLE 1. Authority is given the President of the Republic for a period of 20 years beginning January 1, 1930, to invest a maximum of 2,000,000 pesos annually to subsidize shipowners or national navigation companies establishing a regular interoceanic service via Magellan Strait to ports in Argentina, Uruguay, and Brazil, in accordance with the minimum conditions provided for in the regulations issued for the application of this law.

The subsidy shall be paid in proportion to the quantity of freight transported from Chile by the respective lines. The maximum freight and passenger rates shall be fixed annually, subject to the approval of the President of the Republic. For the purpose of this law it shall be understood that the term "shipowners" or "national navigation company" shall include those persons or organizations which conform to the conditions referred to in article 3 of Law No. 3841 of February 9, 1922.

ART. 2. Companies taking advantage of the benefits provided in article 1 shall be subject to the following conditions for State participation in their net profits:

(a) From all profits there shall be deducted all fines and reserve funds as specified by regulations issued for that purpose;

(b) From the remaining profits there shall first be set aside a dividend of as much as 10 per cent annually in favor of the shares actually issued by the company. The remainder shall be distributed proportionately between the companies and the State, and the latter shall be understood as entitled to nominal shares whose value shall be equivalent to ten times the subsidy paid during the year to the respective company, in conformity with article 1 of this law. The share corresponding to the company, according to the said proportion, shall be distributed by its director in the manner he deems proper, and the share corresponding to the State shall be used to pay the subsidies provided for in conformity with article 1 of this law, accumulated, but without interest.

ART. 3. The President of the Republic shall appoint a director for each company to represent the State if the said organization applies for the benefits referred to in article 1 of this law.

ART. 4. Provision shall be made each year in the budget for the funds required to cover the expenses incurred in the application of this law.

ART. 5. Articles 3 and 4 of Law No. 4249 of January 9, 1928, shall be replaced by the following:

"ART. —. The President of the Republic is authorized, for the account of the companies and with the proper fiscal guaranty, to contract for the loans necessary to buy vessels destined for foreign commerce or coastwise shipping. These loans shall be secured by mortgages on the ships purchased and other securities fulfilling the conditions specified in the respective regulations. These securities may not exceed 60 per cent of the appraised value of the vessel, the appraisal to be made as specified by the said regulations. The companies must at the proper time deposit with the Tesoreria General of the Republic the sums needed for the loan service contracted for in their favor. In accordance with the regulations issued for that purpose, the President of the Republic shall specify the conditions under which the benefits provided for by this article may be extended to private shipowners when applied for by them. In such cases the said shipowners shall be subject to the same obligations and conditions as established for companies by the preceding provisions. The total amount of the fiscal securities for all loans referred to in this law may not exceed 40,000,000 pesos. The period within which loans may be contracted and securities given for the purchase of national merchant vessels shall be 20 years, beginning with the date of promulgation of this law. National companies or shipowners must also insure their vessels as instructed by the Government of Chile. The sum advanced by the State and secured by the vessel may not exceed the amount of the insurance."

ART. 6. The President of the Republic may grant the credit referred to in the preceding article. In the case of coastwise vessels the President may require the use of national fuel; but in cases when special conditions require the use of other fuels the President may permit an exception.

ART. 7. Vessels bought under the terms granted by the preceding article may not, until 10 years after the date of their registration, be sold to foreign shipowners without the special permit of the President of the Republic.

ART. 8. Title II of Law No. 3500 of February, 1919, is revoked.

ART. 9. The President of the Republic is authorized to combine in one text the provisions of Law No. 4249 of January 9, 1928, and those of Title I of Law No. 3500 of February 20, 1919, with the provisions of this law and subdivide the law into titles corresponding to subsidies for navigation and navigation loans.

ART. 10. This law shall become effective from the date of its publication in the Diario Oficial.

ORGANIZATION OF NEW COMPANY UNDER 1929 LAW

Acting Commercial Attaché Robert G. Glover, Santiago, reported on April 23, 1930, the formation of a new shipping line between Chile and the east coast of South America—the *Compañía Chilena de Navegación Interoceánica*. The company, which has a capital of 16,000,000 pesos, divided into 400,000 shares of 40 pesos each, was

formed by two important local shipping companies, the Sociedad Anónima Comercial Braun y Blanchard and the Sociedad Anónima Ganadera y Comercial Menendez Behety, which are to have an equal number of the shares.

Half of the shares issued are to be covered in the following manner: Braun & Blanchard are to furnish the steamers *Valparaiso*, *Santiago*, and *Atacama*, which have been appraised at 4,400,000 pesos, for which this firm will receive 100,000 paid-up shares of the new company and 400,000 pesos in cash. The Menendez Behety Co. is to pay 4,000,000 pesos in cash, for which it will receive 100,000 paid-up shares of the new organization. Each company obligates itself to pay in, without interest, within a period of four years the amount of 4,000,000 pesos due for the other 100,000 shares it is to receive.

The new line will engage in shipping between the west coast of South America and the River Plate and Brazil, and, to quote the acting commercial attaché, "it is its avowed purpose to take advantage of the provisions of Law No. 4602, which sets aside 2,000,000 pesos annually to subsidize Chilean navigation companies that may establish interoceanic steamship lines via the Strait of Magellan to Argentina, Uruguay, and Brazil."

Terms of contract

Under the flexible provisions of the law of June 18, 1929, a presidential decree was issued through the Minister of Foreign Affairs, stipulating the conditions under which the new company must operate during 1930.

Required services.—For that year the new company was required to make at least nine trips to Buenos Aires or five trips to Rio de Janeiro. Vessels making trips to Rio de Janeiro must call at Montevideo. Vessels making trips to Buenos Aires also must call at Montevideo if they carry 500 or more tons of cargo for that port.

To be granted a subsidy the vessels must carry at least 20,000 tons of cargo to Argentine ports north of 46° south latitude, and the minimum cargo which must be carried to Uruguay and Brazil is 2,000 tons.

Rates of subsidy.—By presidential decree the subsidy rates for 1930 for Argentine ports were fixed at 60 pesos per ton for the first 20,000 tons of cargo and 20 pesos per ton for all cargo in excess of 20,000 tons; for Uruguayan and Brazilian ports, 80 pesos per ton for the first 2,000 tons and 100 pesos per ton in excess of 2,000 tons.

Vessel equipment.—The new company will carry on the service between Chile and the east coast of South America with six vessels, three of them to be constructed in Great Britain. The new vessels will be of 12 knots speed and have accommodations for a limited number of passengers, also large refrigeration space for meats, vegetables, and fruits, including capacity for 25,000 cases of apples.

SUBSIDY PROVISIONS OF 1930 BUDGET

In the budget estimates of the Republic of Chile for 1930, under items for the Ministry of Foreign Relations, provision is made for 2,000,000 pesos (\$243,320 at par) for navigation through the Panama

Canal. No estimates appear for the services through Magellan Strait. For subventions to services on lakes, rivers, and internal navigation in accordance with law No. 4202 of September 27, 1927, estimates of 356,000 pesos (\$43,310) are included.

The Chilean subsidy laws contain flexible provisions whereunder, within certain limits, the Government may exercise discretion and fit the provisions of law to the current necessities for the encouragement not only of national ships but of Chilean trade and national resources also. Use of national fuel is an interesting requirement, as are the subsidies for the carriage of coal and nitrates (see below). It is assumed that the subsidized companies are benefited by the commodity bounties in addition to the subsidies received for carrying cargo generally.

COAL AND NITRATE BOUNTIES

COAL-TRANSPORT BOUNTIES

Article 14 of law No. 4248 of January, 1928, providing for protection for the Chilean coal industry through tariffs on foreign coal and fuel oil, authorizes the Minister of the Treasury to pay bounties to Chilean vessels for carrying coal. The rate was fixed at 2 pesos (\$0.243) per metric ton (2,204.6 pounds) of coal transported in Chilean vessels for each 1,000 kilometers (540 nautical miles) sailed from port of embarkation to destination, payment being made against proper consular certification.

The same article (No. 14) also provides that when owners of vessels obtain funds from the Coal Council for the purpose of acquiring vessels with which to carry coal the bounties shall be used to pay interest and amortization on such loans.

NITRATE-CARRYING BOUNTIES

Under decree No. 4261 of October 6, 1928, published in the *Diario Oficial* of October 15, 1928, a bounty of 1 peso (\$0.1208 at the then exchange) will be granted to Chilean vessels for each metric quintal (220.46 pounds), or \$1.20 per metric ton, transported in the following trades:

1. From Chile to the eastern ports on the Atlantic;
2. From Chile to ports of the Indian Ocean;
3. From Chile to ports of the Pacific Ocean in the Southern Hemisphere west of the one hundred and twentieth meridian, west longitude;
4. From Chile to China and Japan.

This subsidy is paid by the Office of Nitrate Development against consular certificates at delivery ports.

The granting of bounties for carrying nitrates was not designed solely as an inducement to Chilean vessels to operate outside the coastal trade; it also had for its purpose the encouraging of the use of nitrates in various parts of the world. This plan, however, carried with it opportunity to provide employment for Chilean vessels in the foreign trade.

The provision for bounties for carrying nitrates in Chilean vessels rested on a proposal of the Superintendent of Nitrates and Mines,

and a resolution of the Council of Nitrate Development promulgated through decree No. 2075 of September 16, 1927. By decree No. 1249 of February 12, 1931, this decree was annulled.

PREFERENCES AND RESTRICTIONS

RESERVATION OF THE COASTING TRADE

The coastwise navigation law of Chile, No. 3841 of February 6, 1922, initiated a series of laws of general scope in the direction of promoting the employment of Chilean vessels in Chilean trade, both domestic and foreign. This law enunciates the following general principles:

1. Reservation of the transportation of cargo between the ports of the Chilean Republic to vessels of Chilean nationality, with the exception that the President of the Republic is empowered, under the form of reciprocity, to grant the privilege of Chilean coastal trade to vessels of other South American nations which grant similar privileges to Chilean vessels;
2. The annual fixing of maximum passenger and freight tariffs subject to the approval of the President of the Republic; the similar fixing of lighterage and wharfage rates; rates to be fixed on legal gold currency basis;
3. The defining of "Chilean nationality" as a vessel whose owners are Chileans residing in Chile, whose captain and officers are Chileans, and whose crew is not less than 75 per cent Chilean. Corporate ownership shall require that 75 per cent of the capital stock be held by Chileans;
4. The determination by the President of the Republic of the number of vessels for each company, ports of calls and general schedules, extra required services, and penalty clauses for nonperformance;
5. The quite unusual provision that from the date of the promulgation of the coastal law the national merchant marine shall become part of the naval reserve of Chile.

COASTAL REGULATIONS

Detailed regulations covering the operation of the coastal law were promulgated by ministerial decree No. 1033 of August 4, 1922. Among those of chief interest were: (1) That tariffs will not be regulated in case of carriers engaged in transporting the products of their owning enterprises (industrial carriers); (2) that Chilean vessels must obtain annual permits based upon a certificate of ownership; (3) that various committees and commissions shall be appointed for the consideration of the annual questions to be settled and transmitted to the Government in respect of rates, etc.; (4) that the Government may requisition any qualified vessel, with full complement, in case of strikes or other emergency, may appoint military commanders to the vessels; and (5) that during such period of requisition the owners shall continue maintenance expenses against monthly reimbursement by the Government. Compensation under these con-

ditions is based upon earnings immediately before vessel's requisition, and if the vessel was showing a loss the Government must pay a sum sufficient to cover the loss.

PREFERENCE FOR CHILEAN VESSELS

In line with the general policy of protectionism for vessels of Chilean registry the ministry responsible for public works (Fomento) provided, by decree No. 4025 of December 4, 1928, the following additions to article 38 of the Regulations for Contracts for Public Works, No. 1725 of August 11, 1920, and article 49 of the Regulations for Railroad Contracts, approved by decree No. 1223 of June 6, 1911:

The contractors must, conditions being equal, ship materials which they import from foreign countries in Chilean vessels by preference.

The Government Inspector of the Work shall in each case require the exhibition of the respective documents.³

³ Diario Oficial, Dec. 22, 1928.

DENMARK

ECONOMIC DEVELOPMENT AND SHIPPING

NATURAL CONDITIONS AFFECTING SHIPPING

Denmark occupies the Jutland Peninsula, thrusting strategically to the north from Germany between the Baltic and the North Seas. The Skagerrak separates it from Norway, the Kattegat from Sweden. The total land area, including the Faroe Islands, is 17,000 square miles, or about the size of Massachusetts and New Hampshire together. It is said that no point in Denmark is more than 40 miles from the sea. Although the country is largely surrounded by water the west coast is unapproachable from the North Sea, the only harbor on the west being Esbjerg, the home of a considerable fishing fleet.

Denmark has attained an enormous agricultural production. Of a population of some 3,500,000, about 56 per cent is strictly rural. The chief exports accordingly are dairy products, eggs, and other food-stuffs, dependent largely upon German and English markets and sea transportation services of ferrylike regularity. Furthermore, the many bays which indent its shores give the country an exceptionally long coast line in proportion to its size and provide the basis for a considerable local traffic as well as for sea communication with other countries.

Denmark is deficient in minerals. Neither coal nor metals can be profitably mined anywhere, though coal is found on the island of Bornholm.¹ The preminence of the shipbuilding industry is therefore all the more notable.

POLITICAL CONDITIONS AFFECTING SHIPPING

As a result of the World War, the Danish coast line has been extended southward on both the Baltic and the North Sea, through the return to Denmark of a part of the ancient Duchy of Schleswig by a plebiscite. The additional North Sea coast line is sandy and dotted with low islands, but the coast line on the Baltic includes the important harbor Aabenraa (Apenrade).

Denmark's only colonial possessions now are Greenland and the Faroe Islands, and consequently the Kingdom has small need for sea communication with outlying territories. A treaty between the United States and Denmark was signed August 4, 1916, ratified, and proclaimed January 25, 1917, by which Denmark sold to the United States the Danish West Indies. Iceland in 1918 was granted independence, but retains as sovereign the King of Denmark and conducts its foreign relations through the Danish diplomatic corps.

¹ Danish Ministry of Foreign Affairs: Denmark, 1927, p. 14.

DEVELOPMENT OF FREE-PORT SYSTEM

The geographical position of Denmark, facing both the North Sea and the Baltic, athwart one of the world's trade routes, has always affected its economic and maritime policy. The policy of Denmark is illustrated by the establishment and maintenance of the free port of Copenhagen, which has become an entrepôt for the Baltic trade. By the creation of the Baltic States (Poland, Finland, Estonia, Latvia, and Lithuania), each with its tariff system, and by the internationalization of the Elbe, Oder, and Vistula Rivers, with their navigable tributaries and connecting canals, giving Czechoslovakia an outlet to the Baltic and North Seas, conditions are created favorable for the development of the free-port system.

THE DANISH COMMERCIAL FLEET

GROWTH OF THE MERCHANT MARINE

Of the 12 leading ship-owning nations of the world Denmark has the smallest fleet. This fleet has grown slowly, the development being, according to Lloyd's Register:

TABLE 110.—GROWTH OF THE DANISH COMMERCIAL FLEET

July 1—	Total fleet ¹	Power-driven vessels ¹	Sailing vessels ¹	July 1—	Total fleet ¹	Power-driven vessels ¹	Sailing vessels ¹
	<i>Gross tons</i>	<i>Gross tons</i>	<i>Gross tons</i>		<i>Gross tons</i>	<i>Gross tons</i>	<i>Gross tons</i>
1906.....	626, 612	537, 242	89, 270	1925.....	1, 059, 846	1, 021, 617	38, 229
1910.....	736, 562	671, 828	64, 734	1926.....	1, 081, 146	1, 049, 386	31, 760
1915.....	854, 996	803, 701	51, 295	1927.....	1, 059, 846	1, 031, 798	28, 048
1920.....	803, 411	719, 444	83, 967	1928.....	1, 067, 539	1, 042, 209	25, 330
1921.....	964, 464	883, 052	81, 412	1929.....	1, 055, 867	1, 032, 744	23, 123
1922.....	1, 038, 138	963, 142	74, 996	1930.....	1, 088, 006	1, 071, 521	16, 485
1923.....	996, 862	937, 743	59, 119	1931.....	1, 145, 257	1, 133, 201	12, 056
1924.....	1, 035, 943	989, 703	46, 240				

¹ Vessels of 100 gross tons and upwards.

Source: Lloyd's Register of Shipping.

EMPLOYMENT OF THE FLEET

By a law of March 29, 1904, all shipowners were required to prepare an annual report on the operations of each vessel of not less than 20 gross tons operating in the foreign trade. Beginning with 1921 the Danish Statistical Department revised the shipping and fleet statistical procedure and has since issued an annual report on the Danish merchant marine under the title "Danmarks Handelsflaede og Skibsfart," an elaborate analysis of the operations of the industry.

The following tables are summaries of these reports. They show earnings in the direct and the indirect trades, liner and tramp services, and the employment of the Danish fleet in foreign and domestic trade, berth and tramp operations.

TABLE 111.—DENMARK'S WATER-BORNE FOREIGN TRADE, 1921-1929

Year	Imports			Exports		
	Total, cargo tons	In Danish vessels		Total, cargo tons	In Danish vessels	
		Cargo tons	Per cent		Cargo tons	Per cent
1921.....	4,886,000	1,927,000	39	988,000	521,000	53
1922.....	7,035,000	3,110,000	44	1,231,000	681,000	55
1923.....	8,419,000	3,818,000	45	1,565,000	838,000	54
1924.....	9,713,000	4,099,000	42	1,707,000	810,000	47
1925.....	8,604,000	3,541,000	41	1,661,000	811,000	49
1926.....	8,264,000	3,340,000	40	1,810,000	890,000	49
1927.....	10,191,000	3,820,000	37	1,992,000	979,000	49
1928.....	10,215,000	4,055,000	40	2,239,000	1,103,000	50
1929.....	10,956,000	4,306,000	39	2,154,000	988,000	45

TABLE 112.—DENMARK'S COASTING TRADE, 1921-1929

Year	Total coasting trade, cargo tons	In Danish vessels				In foreign vessels	
		Liner services		Other services		Cargo tons	Per cent
		Cargo tons	Per cent	Cargo tons	Per cent		
1921.....	1,534,277	481,873	31	901,690	59	150,714	10
1922.....	1,604,939	415,957	26	1,010,930	63	178,052	11
1923.....	2,050,621	565,112	28	1,237,903	61	247,666	11
1924.....	2,163,614	598,671	28	1,296,529	60	268,414	12
1925.....	2,212,070	549,613	25	1,435,640	65	226,817	10
1926.....	2,198,027	544,962	25	1,463,552	66	189,513	9
1927.....	2,177,786	562,255	26	1,454,829	67	160,702	7
1928.....	2,344,895	593,107	25	1,527,632	65	224,156	10
1929.....	2,248,932	563,204	25	1,396,291	62	289,437	13

TABLE 113.—DENMARK'S FERRY SERVICES, 1921-1929

Year	Foreign traffic		Domestic traffic, Danish ferries	Year	Foreign traffic		Domestic traffic, Danish ferries
	Danish ferries	Foreign ferries			Danish ferries	Foreign ferries	
1921.....	Cargo tons	Cargo tons	Cargo tons	1926.....	Cargo tons	Cargo tons	Cargo tons
1922.....	169,200	123,300	1,644,194	1927.....	300,353	190,056	1,526,589
1923.....	239,100	130,200	1,451,876	1928.....	305,183	188,619	1,642,076
1924.....	249,900	140,700	1,561,782	1929.....	328,148	190,356	1,655,000
1925.....	259,800	137,800	1,605,951				
	250,753	146,753	1,509,681		386,165	230,356	1,923,000

GROSS FREIGHT EARNINGS

The Danish merchant marine had its share of the vicissitudes of trade caused by the World War and by the readjustments resulting from it. As a neutral it met these changes without support from the Government, such as the belligerent maritime powers in all cases had to afford to their shipping.

Table 114 shows postwar earnings of the Danish commercial fleet by type of employment, indicating decrease in liner earnings and increase in tramp services. In respect of effective time-charter earn-

ings for foreign account, the Danish Statistical Department converts such earnings into gross freight earnings by adding to the actually earned amount the equivalent of operating costs such as fuel, wages, and port charges.

Pre-war averages indicate that time-charter earnings of one-half of the gross freight earnings provided owners with practically equal profits.

TABLE 114.—FREIGHT EARNINGS OF DANISH COMMERCIAL FLEET, 1921-1929

Year	• Total gross freight earnings		Power-driven tonnage			Sailing vessels, kroner
	Kroner	Equivalent in United States currency ¹	In liner service, kroner	In tramp service, kroner	Time-charter earnings converted to gross freight earnings, kroner	
1921.....	185,600,000	\$33,036,800	(?)	(?)	(?)	• (?)
1922.....	186,700,000	39,113,700	161,600,000	(?)	16,000,000	9,100,000
1923.....	234,000,000	42,962,400	107,800,000	99,300,000	17,500,000	9,400,000
1924.....	271,600,000	45,411,500	114,200,000	127,000,000	21,000,000	9,400,000
1925.....	218,700,000	46,211,300	85,900,000	105,400,000	19,700,000	7,700,000
1926.....	182,500,000	47,969,800	71,500,000	88,600,000	16,800,000	5,600,000
1927.....	198,400,000	53,032,300	75,800,000	95,500,000	21,300,000	5,800,000
1928.....	186,300,000	49,816,600	76,600,000	77,600,000	26,800,000	5,100,000
1929.....	206,200,000	55,014,200	74,900,000	94,100,000	32,600,000	4,600,000

¹ Converted at the annual average rate of \$0.178 to the krone for 1921, \$0.2095 for 1922, \$0.1836 for 1923, \$0.1672 for 1924, \$0.2113 for 1925, \$0.2623 for 1926, \$0.2673 for 1927, \$0.2674 for 1928, and \$0.2668 for 1929.

² Details not available.

³ Exclusive of tramp services.

PASSENGER-CARRYING CONCESSION

It is reported that the Scandinavian-American Line, which belongs to the United Steamship Co., holds the only license for the direct transportation of passengers from Danish to United States ports, except that any vessel may take on not to exceed 25 passengers.

This forms an important aid to the largest shipping company in Denmark, which owns 112 vessels of 221,495 gross tons. The Scandinavian-American Line is operated directly from Copenhagen to the United States. In this service the following vessels have been employed: *Frederik VIII*, of 11,850 gross tons, built in 1913; *United States*, of 9,993 gross tons, built in 1903; *Hellig Olav*, of 9,909 gross tons, built in 1902; and the *Oscar II*, of 10,012 gross tons, built in 1901.

In 1922 the United Steamship Co. acquired American capital through a 15-year bond issue authorized at \$5,000,000. These bonds are dated May 1, 1922, and are due May 1, 1937, bear 6 per cent interest, and are exempt from Danish taxes. The bond issue is repayable in 12 annual payments, beginning May 1, 1925. All vessels of the company are free from mortgages, and the company agrees that no mortgage shall be created so long as the present issue is outstanding. The loan was for the purpose of normal vessel renewal.

DEVELOPMENT OF DANISH SHIPBUILDING

LAUNCHINGS IN RECENT YEARS

Among the Scandinavian countries Norway stands first in shipping tonnage and ship operations, Sweden ranks first in area and population, and Denmark is first in shipbuilding. In world building scale, Denmark ranked sixth in 1930, fifth in 1929, fourth in 1928, sixth in 1927, and seventh in 1926, 1925, and 1924.

During 1930 Danish shipyards launched 127,230 gross tons; in 1929, 111,496 gross tons; in 1928, 138,712 gross tons; in 1927, 72,038 gross tons; in 1926, 72,108 gross tons; in 1925, 73,268 gross tons; and 63,937 gross tons in 1924. The total production of the shipbuilding industry for 1926-1928 was as follows:

TABLE 115.—PRODUCTION OF DANISH SHIPBUILDING INDUSTRY, 1926-1928

Year	Total output		Large vessels, kroner	Small craft, kroner	Ship repairs, kroner	Engines and ma- chinery, kroner
	Kroner	Equivalent in United States cur- rency ¹				
1926.....	89,463,000	\$23,450,400	45,371,000	2,317,000	18,176,000	23,539,000
1927.....	73,083,000	19,535,100	34,095,000	4,742,000	20,548,000	13,698,000
1928.....	100,136,000	26,776,400	54,498,000	396,000	21,818,000	23,424,000

¹ Converted at the annual average rate of \$0.2623 to the krona for 1926, \$0.2673 for 1927, and \$0.2674 for 1928.

Source: Danish Official Yearbook, 1930.

In a special report submitted on October 21, 1929, Commercial Attaché H. Sorensen, Copenhagen, stated that the Danish shipbuilding industry had again become a prime source of new tonnage, and continued:

PRINCIPAL SHIPYARDS

After a rather long postwar period of depression the Danish shipbuilding industry has once more come to occupy a place of prime importance as a supplier of new tonnage to the world. From an annual average production of 10,000 to 15,000 tons during the years immediately following the war, the Danish industry during the last five years has gradually increased its production, until in 1928 its output numbered 40 vessels aggregating about 80,000 net register tons. This total from present indications will be further increased during the current year. In addition to this tonnage the industry also supplied a large share of the world consumption of Diesel marine engines and did ship-repair work valued at about 22,000,000 kroner.

At the present time the industry embraces in all 12 establishments and employs about 12,000 workers. The total production is valued at close to 100,000,000 kroner (\$26,800,000 at par).

Burmeister & Wain, established in 1872, is by far the largest of Danish shipbuilding firms. During the last few years the company's capital has been increased a number of times—from 5,000,000 kroner to the present 35,000,000 kroner. Many of the shares are held abroad, chiefly in English and American hands. In 1921 the Copenhagen Floating Dock & Dry Dock Co. was absorbed by Burmeister & Wain. At present Burmeister & Wain's equipment includes one dry dock capable of accommodating ships measuring 475 by 58 feet, 3 repair slips, 8 new building ways, and 5 floating docks accommodating ships up to 13,600 tons; large repair shops, a large Diesel motor plant, and a large foundry, all located in Copenhagen.²

² In 1930 Burmeister & Wain employed 12,700 workers, and produced 134,000 gross tons in addition to a large number of Diesel engines.

The development of this firm has been rapid and has, as mentioned, been intimately connected with the development of the Diesel marine motor. In this, Burmeister & Wain have been supported strongly by the Danish East Asiatic Co., the first company to equip large ships with Diesel motors (the *Selandia*, of 4,950 gross register tons, 1912).

Practically all of the other important Danish shipbuilding companies are allied with or directly owned by Danish shipping companies. This alliance and concentration is partly the result of the postwar crisis, with its need for rationalization in management and production methods.

The Frederikshavns Værft & Flydedok A/S, Frederikshavn, and the Helsingørs Jernskibs & Maskinbyggeri A/S, Helsingør, are both controlled by the United Steamship Co. (operating the Scandinavian American Line). These two establishments have a floating dock, five dry docks, and four building ways.

The Nakskov Skibsværft A/S, Nakskov, is owned and operated by the East Asiatic Co., and builds largely for this company's account. The Nakskov plant has a repair way, two dry docks, and three building ways. This plant builds hulls only.

The Odense Staalskibsværft, Odense, is owned and operated by A. P. Möller, a large Danish shipowner who controls, among other companies, the A/S Dampskibsselskabet Svendborg and Dampskibsselskabet af 1912. The Odense yard has two building ways but no repair ways or docks, and builds hulls only.

The Aalborg Maskin-og Skibsbyggeri is privately owned. It is a small concern and specializes to some extent in the construction of cement-carrying vessels. This yard has a dry dock, two repair ways, and two building ways. The machinery seldom is supplied by the yard itself.

Besides the above-mentioned privately owned shipyards the Danish Government owns and operates a shipbuilding establishment at Copenhagen, which builds only for Government account.

During 1929 the activity of Danish shipyards has been increased so materially that production during the first three quarters totaled about 85,000 gross tons. On October 1, 1929, Danish yards had under construction 19 vessels of about 81,000 gross tons, and had orders on hand for about 40 ships of about 160,000 gross tons.

DANISH SHIP EXPORTS

While a large share of the tonnage built in Denmark is for Danish account, the production for foreign account also is of very considerable proportions, and the exports since the close of the war have shown a marked increase. Norway has always been, and still is, the largest buyer of Danish new construction. Exports during the last few years have been as follows:

TABLE 116.—EXPORTS OF DANISH-BUILT SHIPS, 1920-1928

Year	Total exports		To Norway, kroner	To Iceland, kroner	To Sweden, kroner	To United States, kroner	To Siam, kroner	To other countries, kroner
	Kroner	Equivalent in United States currency ¹						
1920.....	8,830,000	\$1,394,400	8,574,000	80,000	176,000	-----	-----	-----
1921.....	26,100,000	4,645,800	6,504,000	2,262,000	17,344,000	-----	-----	-----
1922.....	18,119,000	3,795,900	1,912,000	-----	-----	-----	-----	16,207,000
1923.....	4,918,000	902,000	3,014,000	707,000	-----	1,120,000	-----	72,000
1924.....	13,319,000	2,226,900	10,074,000	61,000	1,151,000	1,308,000	725,000	-----
1925.....	30,160,000	6,372,800	27,467,000	68,000	-----	-----	1,270,000	1,345,000
1926.....	29,467,000	7,729,200	24,359,000	502,000	-----	-----	-----	4,605,000
1927.....	18,935,000	5,061,300	10,884,000	1,157,000	1,283,000	-----	950,000	4,661,000
1928.....	28,500,000	7,620,900	(²)	(²)	(²)	(²)	(²)	(²)

¹ Converted at the average rate of exchange for the year named.

² Details not available.

POSTAL SUBSIDIES AND NAVIGATION BOUNTIES

NAVIGATION BOUNTIES

ESBJERG-GRIMSBY AND ESBJERG-PARKESTON SERVICES

The direct aid to shipping given by the Danish Government is now, like that of Sweden and Norway, of interest principally as history. The predominating industry of the country is agriculture, and the establishment of steamer services by Government support carried the assumption of lower freight rates, thereby giving Danish products advantages in foreign markets.

Since 1888 the principal direct aid extended by the Danish Government was granted to the United Steamship Co. of Copenhagen for the operation of regular lines of vessels between Esbjerg and Grimsby and between Esbjerg and Parkeston. These vessels were provided with refrigerating facilities and used chiefly for the transportation of Danish dairy and farm products. The object of these subsidies was to provide not only adequate facilities for this trade, but also low transportation rates, inasmuch as the agreement between the steamship line and the Danish Government provided for a reduction in rates on all farm products.

Terms of first contract

United States Consular Reports for January-April, 1890, volume 32, carried the text of the first contract. The following extracts are of interest:

Sec. 2. The compartments set apart for butter, fresh pork, and beef shall be kept cool, so that the temperature in these, six hours from the ship's sailing, shall be brought down to 10° C. at the highest, and this to be placed under such control as the Home Minister may deem proper.

Sec. 7. During the passage to England, so that no delay may thereby be occasioned, it is forbidden to render assistance to other ships or to make any attempts for the salvage of these or their cargoes, unless it should be for the saving of human life or affording aid to crews in distress.

Sec. 9. The minister reserves the right of reducing the rates of freight stipulated under the agreement of 1888, on payment of a further yearly subvention to the company of 15,000 kroner (\$4,020 at the par rate of \$0.268) for every shilling of reduction per ton on the freight of the goods mentioned, which amount shall be paid in 12 monthly installments.

(a) To refund to the company all wharfage dues levied at Esbjerg in the course of the year on all goods and livestock shipped by their steamers to Parkeston, and of which mention is made in the contract. The payments to be made in the month of April for the foregoing financial year.

(b) To pay to the company an annual subvention of 50,000 kroner (\$13,400), the same to be paid in 12 monthly installments. This subvention, however, to cease whenever the goods carried from Esbjerg to Parkeston of the articles named in the contract shall have reached in the previous year an amount of 24,000 tons.

Subsidy payments

Ships operating on these lines were reimbursed for wharfage dues at Esbjerg. These refunds proved to be of larger benefit than the subsidies themselves. The subsidy payment for the Esbjerg-Parkeston line was 120,000 kroner (\$32,160) annually for the fiscal years 1904 to 1912, while the refund of port dues averaged 157,000 kroner (\$42,000) annually for the same period. On the Esbjerg-Grimsby

line the annual subsidy payments were 60,000 kroner (\$16,080), while the port dues refunded averaged about 56,000 kroner (\$15,000).

The policy of granting subsidies and making refunds of port charges on the ships operated on the two lines from Esbjerg to English ports was discontinued at the close of the fiscal year 1911-12.

KALUNDBORG-AARHUS AND FREDERIKSHAVN-GÖTEBORG SERVICES

Beginning with 1903-4 a line was subsidized between Kalundborg and Aarhus, both on the Danish coast, for a daily service, the compensation consisting of any deficit accruing from lower freight rates. This line remained in operation until 1915, and during that period the Danish Government paid annual deficits averaging about 32,000 kroner (\$8,500).

In 1903-4 a line was established from Frederikshavn to Göteborg, Sweden, the annual payments varying with the mails carried. The smallest pre-war payment was in 1904-5, 13,570 kroner (\$3,637), while the largest was 86,000 kroner (\$23,314) annually during the period 1907-8 to 1910-11. Annual payments since have ranged from 38,000 to 56,000 kroner (\$10,000 to \$15,000).

POSTAL CONTRACT SERVICES

The greater part of postal expenditures for the carriage of mails by water goes to vessels in the domestic trade. The Danish postal and telegraph operation report for 1927-28 states that mail pay to vessels for carrying mails in the domestic trade amounted to 636,000 kroner (\$170,000) while payments to vessels in the foreign trade was 116,000 kroner (\$31,000).

DANISH MARITIME CREDIT

The Danish Government at present grants no direct aid to shipping or shipbuilding through funds established for this purpose. The shipbuilding industry, however, is aided through the Danish export-credit scheme inasmuch as Danish-built ships are eligible to participate in its benefits.

As described by Commercial Attaché H. Sorensen in Commerce Reports for October 7, 1929, Denmark's export-credit scheme includes, among other features, the following:

EXPORT-CREDIT SCHEME

CREDIT INSURANCE

The initial step toward organization of Government export-credit insurance was taken in 1922. Danish industrial exports at that time, owing to the krone's fluctuations, to tight and disorganized money, and to credit conditions at home and abroad, had dropped to a very low level, and it was hoped that the insurance of export credits would stimulate exports and relieve the industrial crisis.

Accordingly an act of June 9, 1922, placed 5,000,000 kroner (\$1,047,500 at average 1922 exchange) at the disposal of the Ministry of Commerce for the establishment of an export-credit insurance scheme similar to the English system. Its outstanding feature was the State guaranty, up to 85 per cent of the exporter's draft, when the period of credit did not exceed 12 months and when a bank guaranty or other security was made available by the foreign buyer. The State had no recourse on the exporter. In placing consignment stocks abroad the State took 50 per cent of all losses sustained by exporters.

This plan failed to give satisfactory results. The exporters generally took the view that if they could comply with the Government's requirements in con-

nection with security, etc., they would have no difficulty in obtaining credit elsewhere or would feel quite secure in completing the transaction at their own risk. At the end of the first year about 4,000,000 kroner of the available 5,000,000 kroner was in use, and of this amount about 380,000 kroner was tied up in consignments.

EXPORT FINANCING

In 1924 the regulations were so changed that the 12-month period was extended to two years, and the guaranty requirements were discontinued where the foreign buyer was a State or a cooperative organization. At the same time another fundamental change was made. Theretofore the underlying principle of the export-credit scheme had been insurance, but because of the prevailing stringent money conditions the Danish exporters, notwithstanding the State guaranty, had often been unable to get their drafts discounted. To remedy this situation it was decided to change from insurance to financing. The State also demanded recourse on the exporters for a certain part of the eventual losses and required a certain premium, varying according to the risk involved. The revenue derived from this income was used to establish a fund from which eventual losses were to be covered, so that the State in the future should not be faced with the necessity of paying such losses. At this time the export-credit fund was increased to 10,000,000 kroner, and foreign loans were obtained to put the financing scheme into operation.

These changes were immediately followed by a great increase in demand, and in 1926 the fund was further increased to 20,000,000 kroner. In February, 1926, other changes were made in the regulations by which all products, including agricultural, and purchases of raw materials from abroad were made eligible to participate in the governmental aid. The subsequent financing operation was borne by the exporter except such losses as the State might incur under its guaranty. At the same time an export-credit fund of 20,000,000 kroner was established by the Danish Government through an American trust company in New York and the Copenhagen Privatbank.

Following the establishment of the financing organization, requests for State guaranty and for State financing were received in such great numbers that it became necessary to obtain additional funds. Accordingly, the export-credit fund in the 1927-28 budget was increased to 40,000,000 kroner and has since been enlarged to 45,000,000 kroner. This being a revolving credit rather than a fixed amount, and the average guaranty percentage being only around 60 to 65 per cent, the actual amount involved in transactions is much greater than the face value of 45,000,000 kroner.

PRESENT FORMS OF STATE GUARANTY

State assistance at present is granted on the following plans:

1. *State guaranty of exporter's drafts.*—(a) State guaranty up to 85 per cent of the exporter's draft on the foreign buyer can be given when the period of credit does not exceed 12 months; (b) unless guaranty or security of some sort is given by the foreign buyer or unless the draft has been accepted by a foreign cooperative organization, the Government reserves recourse on the exporter for one-half of eventual losses; (c) in case payment is guaranteed by a foreign government or a State bank or other security of corresponding value is given and gradual amortization is taking place, the period of credit may be extended up to four years; (d) in special cases, where credit information about the foreign purchaser is deemed to be especially satisfactory, the demand for recourse can be reduced to 20 per cent of eventual losses; (e) in case a draft is not paid at the time of maturity the export fund, within three months after maturity, will pay its guaranty to the Danish bank which discounted the draft.

2. *State responsibility for losses.*—After proper investigation the State may agree to accept responsibility for one-half of the eventual losses incurred through consignment of goods to export markets.

3. *State guaranty to banks, etc.*—State guaranty can be given to banks and others in connection with (a) sale of consignment stocks and the placing of sample stocks abroad up to 50 per cent of the value of such stocks; (b) purchases of raw materials, etc., for the manufacture of products for which there is known to be a demand abroad and which can be produced in Denmark at competitive prices, but the period of credit in this form must not exceed two years; (c) the filling of large foreign orders for fertilizers, ships, locomotives, railroad material, etc., in which cases the guaranties must not exceed 75 per cent of the amount of the order and must be gradually liquidated within five years, except for ships where a period of six years will be allowed for the complete liquidation of the account.

PREMIUM TO COVER STATE LOSSES

To quote further from Commercial Attaché Sorensen's report:

A small premium is paid for the establishment of a fund from which eventual losses may be covered. Premium rates paid by exporters have varied greatly, but have always been below the rates at which credit insurance might be obtained in the open market, often less than half the open-market rates. In a great many instances—for example, those involving business with Russia—credit insurance as a rule could not have been obtained at reasonable cost through private sources.

The losses so far incurred have been small and have been fully covered by premium revenues, notwithstanding the low rates maintained. At the beginning of 1929 the surplus accumulated from paid-in premiums totaled 350,000 kroner.

The attitude of exporters toward State assistance in the beginning was far from favorable, but as the administrative features to which the exporters objected were gradually removed or remedied the plan became very popular, so that at present practically the entire fund of 45,000,000 kroner is employed.

The future of the Danish Government export-credit system is uncertain as the system itself rests upon authority given for only one year at a time through appropriation made available in the annual budget. While it is probable that the work will be continued for several years to come, it has apparently never been the intention of the Government to establish a permanent organization. As local and world credit conditions gradually become adjusted and as the need for Government assistance ceases, the Danish Government export-credit system will in all probability be liquidated.

The extent to which the export-credit insurance scheme is employed in shipbuilding is not reported. On January 13, 1928, a member of the Danish Parliament, in discussing the budget law, said that more than one-half of the fund was used to extend credit to vessels built in Denmark for foreign account. It was also stated that the shipping industry did not look favorably on the scheme, since through this means foreign competitors were placed in the position of obtaining long-term credits for vessels with which to compete with Danish vessels.

PROPOSED SHIP-MORTGAGE BANK

On December 16, 1930, a bill was submitted by the Minister for Navigation establishing a mortgage bank for financing Danish shipping enterprises. According to Ernest L. Ives, secretary of the American Legation at Copenhagen, the project authorized the proposed mortgage bank to issue bonds in an amount not to exceed 20,000,000 kroner (\$5,360,000 at par). The bonds are to be guaranteed by the Government. Loans are to be granted against a first mortgage only, and no mortgage may exceed half the value of the vessel.

It is understood that a number of Danish shipowners have agreed to subscribe 1,000,000 kroner (\$268,000) to the project. The bill provides that no shipowner may subscribe more than 150,000 kroner (\$40,200), and the interest received by the subscribers may not exceed 5 per cent. The bank will not be opened until applications for loans aggregating 3,000,000 kroner (\$804,000) have been received.

To pay the cost of administration and in order to create a reserve fund the borrowers must pay 1 per cent of the principal sum when the loan is made and 0.25 per cent every six months, in addition to which a certain amount must be paid into a sinking fund every month. The period of amortization may not exceed 20 years. Vessels on which loans are granted must, so far as possible, carry Danish crews.

On June 12, 1931, Commercial Attaché Charles B. Spofford, Copenhagen, reported that the proposed bill had not been enacted but had fairly promising chances for adoption during the coming session of the Rigsdag.

PREFERENCES AND RESTRICTIONS

RESERVATION OF THE COASTING TRADE

Regarding the coasting trade of Denmark, Commercial Attaché H. Sorensen reported under date of May 8, 1929:

The Danish coastwise trade is open to ships of practically all nations, provided these ships are supplied with and sailing under a registry certificate or certificate of admeasurement based on the same principles as the Danish ship-measurement laws of March 13 and September 26, 1867. There is only one exception, namely, that foreign ships engaged in Danish coastwise trade must be above 15 commercelaester (a "commercelaest" equals 2 register tons), unless the country to which ships measuring less than 30 register tons belong has an agreement providing for reciprocity of ships below this tonnage. Denmark has such reciprocal agreements with Belgium and Germany. The laws which govern Danish coastwise shipping are the following:

1. Law of September 5, 1820, restricting all coastwise trade carried on by ships of less than 30 register tons to ships of Danish registry;
2. Law of April 14, 1865, opening Danish coastwise shipping to all nations, irrespective of the size of ships employed, provided agreements of reciprocity are entered into by the respective countries;
3. Laws of March 13 and September 26, 1867, requiring that all ships calling at Danish harbors must be measured according to certain definite rules, which correspond to the ones in force at present in Germany and in England. Government ships (nonfreighters) and foreign ships possessing a certificate of measurement issued in accordance with ship-measurement laws based on the same principles as the Danish are excepted.

The bulk of the Danish coastwise trade is done by liners belonging chiefly to one Danish company, the United Steamship Co. Only an unimportant part of the trade is carried by small domestic sail and motor ships. German, Dutch, and Swedish vessels, usually very small, from 30 to 200 tons, occupy quite a prominent place in Danish coastwise trade, especially the Dutch flat-bottom boats.

EXEMPTION FROM FISCAL CHARGES

IMPORT DUTIES

The Danish shipbuilding industry is granted reimbursement for duties paid on materials and parts used in new construction or in repairs or fitting of vessels up to 3 per cent of the cost price of such vessel construction or work or repairs.

GREECE

ECONOMIC DEVELOPMENT AND SHIPPING

The Greeks are the oldest maritime race of Europe. The Greek merchant marine is still the most important in the eastern Mediterranean and in Turkish, Bulgarian, Rumanian, and Russian waters, and the general restoration of activity and increase of the Greek commercial fleet since the World War are largely a result of national aptitudes growing out of geographical conditions.

Greece has no colonies or protectorates, hence no political need for sea communication with remote territories, but the physical configuration of the country, composed of peninsulas, islands, and a mainland indented by the sea, requires domestic transportation by water, and an interior traversed by mountain ranges compels a considerable part of the prolific race to seek a livelihood on the sea or by migration across the sea.

Recently the Greek Government has been active in considering means of aid to Greek shipping. During 1926, in addition to restricting the coastal trade to vessels of national registry, a number of other measures were adopted. These were: (1) The establishment of an officers' school at Piræus; (2) decrees relative to port dues, etc.; (3) modification of the decrees relating to inspection; (4) promulgation of decree on the age of vessels; and (5) reduction of taxes on vessels. State aid in the form of mail subsidies had been given for many years previously.

THE GREEK COMMERCIAL FLEET

GROWTH OF THE MERCHANT MARINE

The Greek commercial fleet in 1931 comprised 539 vessels of 1,397,782 gross tons, all power driven. One hundred and thirty-three of these vessels, representing 631,127 gross tons, were of 4,000 gross tons or more. The tonnage, however, is old, 1,210,804 tons, or about 86 per cent of the fleet, being not less than 15 years old and 801,767 gross tons exceeding 25 years.

During the eight years preceding the World War, Greek shipping doubled in tonnage, Lloyd's Register listing 837,000 gross tons as the Greek commercial fleet of 1914. The development since 1913 is shown in the following table:-

TABLE 117.—GROWTH OF THE GREEK COMMERCIAL FLEET

July 1—	Total fleet ¹	Power-driven vessels ¹	Sailing vessels ¹	July 1—	Total fleet ¹	Power-driven vessels ¹	Sailing vessels ¹
	<i>Gross tons</i>	<i>Gross tons</i>	<i>Gross tons</i>		<i>Gross tons</i>	<i>Gross tons</i>	<i>Gross tons</i>
1913.....	722, 782	705, 897	16, 885	1923.....	755, 441	747, 474	7, 967
1914.....	836, 868	820, 861	16, 007	1924.....	761, 210	756, 912	4, 298
1915.....	908, 725	892, 991	15, 734	1925.....	897, 878	894, 542	3, 336
1916.....	738, 267	717, 945	16, 222	1926.....	924, 944	921, 861	3, 083
1919.....	323, 796	290, 793	33, 003	1927.....	1, 025, 813	1, 025, 730	3, 083
1920.....	530, 261	496, 998	33, 263	1928.....	1, 187, 508	1, 187, 508	-----
1921.....	599, 929	587, 250	12, 679	1929.....	1, 266, 685	1, 266, 685	-----
1922.....	668, 127	657, 604	10, 523	1930.....	1, 390, 899	1, 390, 899	-----
				1931.....	1, 397, 782	1, 397, 782	-----

¹ Vessels of 100 gross tons and upwards.

Source: Lloyd's Register of Shipping.

Owing to lack of capital Greek shipping made little progress until the Boer War, when the demand for cargo space forced up freights and led to the purchase of considerable tonnage. An added stimulus was given in 1910 by the passage of a mortgage law which enabled shipowners to borrow capital on favorable terms. Shortly thereafter a Greek passenger line was opened to New York to accommodate the large Greek emigrant movement to the United States. During the four years following the enactment of the mortgage law the national steam fleet was increased by 500,000 gross tons.

WAR TONNAGE LOSSES

During the World War 388,000 gross tons of Greek shipping were destroyed, or an amount equal to 46 per cent of the fleet of Greek nationality in 1914. Besides the losses due to the exigencies of war, 260,000 tons were sold to foreign registry. Thus nearly 80 per cent of the national fleet disappeared from national registry during the war. It has been estimated that during this period Greek owners were reimbursed by high freight rates, insurance, and sales in the amount of \$200,000,000. The acting commercial attaché at Athens reported that \$48,000,000 had been employed in the purchase of 550,000 gross tons of shipping by the end of 1921.

By 1925 the pre-war tonnage had been exceeded, by 1929 had increased to 1,266,685 gross tons, and on July 1, 1931, stood at 1,397,782 gross tons.

WAR-TIME EARNINGS OF THE FLEET

On the subject of war-time earnings of Greek shipping Consul General Alexander W. Weddell, Athens, reported: ¹

In reviewing the economic history of Greece since 1914 one of the most significant factors in the situation has been the merchant marine and the extraordinary profits realized therefrom. * * *

Almost coincidentally with the outbreak of the European war large numbers of Greek vessels were requisitioned by the Allied Powers. These vessels under requisition were liberally paid for and heavily insured. It is estimated that the amount paid to Greek shipowners for their losses through sales and through enemy activities in the last four years equals some \$60,000,000 (600,000 tons, at approximately £20 sterling a ton).

The net profits derived from the charter of vessels are estimated as follows: During 1915, in the neighborhood of \$27,000,000; during 1916, \$42,000,000;

¹ See Commerce Reports for Dec. 13, 1920.

during 1917, all steamers under requisition by the Allies were paid for at the rate of 30 shillings per ton, monthly.

From unofficial, but what are believed to be reliable, statistics the net profits from all sources on Greek shipping, including steamers sold, from 1915 to 1919, inclusive, were approximately 1,000,000,000 drachmas (\$193,000,000). These are divided as follows: Steamers lost or sold, 200,000,000 drachmas (\$38,600,000 at the pre-war par rate of \$0.193); profits—for 1915, 140,000,000 drachmas (\$27,000,000); for 1916, 220,000,000 drachmas (\$42,500,000); for 1917, 187,500,000 drachmas (\$36,200,000); for 1918, 150,000,000 drachmas (\$29,000,000); for 1919, 100,000,000 drachmas (\$19,300,000); or a total in the neighborhood of \$193,000,000, as just said.

POSTWAR EMPLOYMENT OF THE FLEET

A steadily increasing proportion of Greek foreign trade is now being carried by Greek vessels, a gain from 51 per cent to 60 per cent having taken place between 1926 and 1929; and since restriction of the coastal trade to vessels of national registry an equal gain has occurred in the Greek share, or a gain from 89 per cent to 98 per cent.

TABLE 118.—GREECE'S FOREIGN TRADE, BY NATIONALITY OF CARRYING VESSEL

Year	Total imports and exports			Imports			Exports		
	In Greek vessels	In foreign vessels	Share in Greek vessels	In Greek vessels	In foreign vessels	Share in Greek vessels	In Greek vessels	In foreign vessels	Share in Greek vessels
	<i>Cargo tons</i>	<i>Cargo tons</i>	<i>Per cent</i>	<i>Cargo tons</i>	<i>Cargo tons</i>	<i>Per cent</i>	<i>Cargo tons</i>	<i>Cargo tons</i>	<i>Per cent</i>
1926	2,161,417	1,682,491	56.23	1,498,829	1,199,439	55.55	662,588	483,052	57.84
1927	2,263,501	1,927,292	54.01	1,584,549	1,442,399	52.35	678,952	484,893	58.34
1928	2,706,130	1,896,561	58.79	1,901,700	1,435,718	56.98	804,430	460,843	63.58
1929	3,173,609	2,151,660	59.63	2,190,258	1,675,568	56.66	988,351	476,092	67.49

Source: Statistique Générale de la Grèce, 1926 and 1929.

TABLE 119.—GREECE'S COASTAL TRADE, BY NATIONALITY OF CARRYING VESSEL

Year	Total carried in Greek vessels	Total carried in foreign vessels	Share in Greek vessels
	<i>Cargo tons</i>	<i>Cargo tons</i>	<i>Per cent</i>
1926	1,235,330	155,930	88.80
1927	1,232,619	68,750	94.72
1928	1,505,332	27,517	98.20
1929	1,716,973	31,798	98.18

Source: Statistique Générale de la Grèce, 1926 and 1929.

POSTAL SUBSIDIES AND NAVIGATION BOUNTIES

POSTAL SUBSIDIES

Greek foreign mails are carried principally by foreign vessels at International Postal Union rates. A few small subsidies are in existence for the conveyance of mails around Greece and to the Aegean Islands, Crete, and other parts of the eastern Mediterranean,

and are disbursed through the postal service under the designation, "indemnities." Following are recent figures:

TABLE 120.—SUBSIDIES TO GREEK VESSELS FOR MEDITERRANEAN MAIL SERVICES, 1901-1910 AND 1923-1929

Year ¹	Annual subsidy		Year ¹	Annual subsidy	
	Drachmas	Equivalent in United States currency ²		Drachmas	Equivalent in United States currency ²
1901.....	208,550	\$40,250	1910.....	400,175	\$77,234
1902.....	157,440	30,388	1923.....	999,600	17,100
1903.....	230,000	44,390	1924.....	1,604,000	28,710
1904.....	210,900	40,704	1925.....	2,350,000	36,660
1905.....	212,050	40,928	1926.....	8,190,000	103,200
1906.....	217,975	42,069	1927.....	5,055,000	66,725
1907.....	307,750	59,396	1928.....	5,881,000	76,450
1908.....	434,050	83,772	1929.....	5,155,500	67,022
1909.....	373,225	72,032			

¹ Data for 1911-1922 not at hand.

² Converted at the pre-war par rate of \$0.193 to the drachma for the years 1901 to 1910; at \$0.0171 for 1923, \$0.0179 for 1924, \$0.0156 for 1925, \$0.0126 for 1926, \$0.0132 for 1927, and at the newly stabilized par of \$0.013 for 1928 and 1929.

Source: Statistique des Postes, Telegraphes et Telephones, 1929.

NAVIGATION BOUNTIES

SUBSIDIES TO ROUTE SERVICES

According to a report by Acting Commercial Attaché Charles E. Dickerson, jr., Athens, February 5, 1926, parliamentary action was taken with a view to stimulating renewal of Greek vessel tonnage. Mr. Dickerson stated:

In order to rehabilitate the passenger marine, the Greek Government issued a legislative decree, published in the Official Greek Gazette of December 16, 1925, under which all passenger steamers taking the Greek nationality must pay the following fees:

1. If under 10 years of age: No fee.
2. If 11 to 15 years: 10 shillings (\$2.43) per gross ton for the first 2,000 tons and 5 shillings (\$1.22) per ton exceeding 2,000 tons.
3. If 16 to 20 years: £1 10s. (\$7.30) per gross ton for the first 2,000 tons, and 10 shillings (\$2.43) per ton exceeding 2,000 tons.
4. If 21 to 30 years: £2 (\$9.73) and £1 (\$4.87) as above.

No steamer exceeding 30 years of age may be registered as a Greek steamer. Moneys to be collected from these fees will be used by the Government for subsidies to passenger steamers less than 10 years of age serving certain Greek or international coast lines.

On February 21, 1928, Consul Edwin A. Plitt, Athens, reported that the Yannoulato Navigation Co. had entered into an agreement with the Ministry of Communications concerning the establishment of a semimonthly steamer service between Greece and Albania for an annual subsidy of 1,700,000 drachmas (\$22,100 at \$0.013 to the drachma). The agreement was signed for one year only.

SUBSIDIES TO PASSENGER VESSELS

In the early part of 1927 the Council of the Merchant Marine approved a decree granting subsidies to new passenger vessels, the principal provisions of which were:

Passenger vessels less than 10 years old, of 1,000 or more gross tons, employed in the services between Piræus and Constantinople, Marseille, Corfu, Brindisi, and Alexandria, are entitled to subsidies fixed by the state.

For vessels from 1 to 5 years old, 20 metallic drachmas (probably old drachma of \$0.193) per gross ton for the first 2,000 tons, and 10 drachmas for each gross ton above 2,000 gross tons. Accordingly a 4,000-ton vessel would be entitled to an annual subsidy of \$7,720 for the first 2,000 gross tons and \$3,860 for the second 2,000 gross tons, or an annual total of \$11,580. Vessels over 5 years old were entitled to one-half of these rates.

The subsidy is payable quarterly, and the vessel is obliged to complete at least 15 sailings a year for the first line and 20 a year for the second line; to carry mail free of charge; to maintain 12 knots speed; and to grant a 50 per cent rebate on the passage charges of military and public officials.

A credit of 2,000,000 drachmas was entered in the budget of the governing board of the merchant marine to cover the subsidy outlay.

PROPOSED SUBSIDY PROGRAM OF 1931

Two factors caused a comprehensive survey of the national commercial fleet of Greece to be made in 1930 and resulted early in 1931 in broad recommendations covering all forms of Greek shipping activity. The first of these factors is the inability of the National Steam Navigation Co., which operates services between Piræus and New York, to continue its trans-Atlantic service without Government support. The second factor is the age of the Greek merchant tonnage, a large proportion of which is in the older age categories, which raises problems of marine insurance.

The situation was studied by a commission presided over by the Minister of Foreign Affairs and composed of representatives of all elements interested in the Greek merchant marine, whose findings as discussed in the following pages were reported on January 13, 1931, by American Vice Consul Albert E. Clattenburg, jr., Athens.

Recommendations concerning trans-Atlantic passenger traffic

The commission found that the trans-Atlantic fleet of the Greek merchant marine would disappear because all its competitors have financial support from their governments which it, itself, lacks. It states that in the interests of national export trade and national defense this part of the Greek merchant fleet should not be allowed to disappear, and makes the following recommendations, the application of which it deems imperatively necessary to keep the Greek flag flying on the Atlantic:

The State will give its guaranty to a bank or a foreign shipbuilding firm for the granting of a credit of £1,500,000 sterling (\$7,300,000 at the par rate of \$4.8665). This loan is to be paid off in installments within 20 years and is to be used for the construction of two motor vessels of 15,000 gross tons and with a speed of 19 knots. With these two vessels and the *Byron*, which is now in service, a direct passage between Piræus and New York, lasting only 11 days, can be offered at 20-day intervals.

The State will pay the interest on the credit for the construction of the above two ships in so far as it exceeds 4 per cent. It will also contribute the sum of £125,000 (\$608,300) each year, for 15 years, toward the liquidation of this credit.

Certain ports will be fixed as ports of emigration, as is done in other countries, in order to make competition by foreign vessels more difficult.

The State will be guaranteed, by representation on the board of directors, a share in directing the company that will receive these benefits.

The State, in return for benefits granted, will be accorded certain privileges and a share in such profits as may result.

Recommendations concerning Mediterranean traffic

Passenger services confined to the Mediterranean were found not to be in so precarious a condition as the New York line. The following recommendations were nevertheless made:

No vessel purchased abroad may be registered as a Greek vessel if it is over 20 years old. An exception is made for vessels of less than 300 tons intended for purely local service. The age of these must not, however, exceed 25 years.

All passenger vessels acquired under the above ruling will be put out of use when they reach the age of 40 years.

Simultaneous sailings of vessels in any service will not be permitted unless need is shown.

Subventions will be granted to companies operating the following necessary international routes: Piræus-Albania; Piræus-Cyprus; Piræus-Dodecanese; Piræus-Alexandria; Piræus-Istanbul; Piræus-Marseille. These subventions are for the purpose of improving the quality and increasing the number of vessels serving these lines.

All vessels now in service will be considered unsuitable and put out of use without any other examination as soon as they are 50 years old.

Owners of vessels eliminated by the terms of the paragraph above will be compensated from funds to be collected from the owners of vessels which remain in service. The possible amount of this indemnity will be reduced every two years, and no indemnity will be granted at all after the present plan has been in force 10 years.

Special and sufficient measures will be taken to care for seamen who are thrown out of work because their vessels are retired on account of age.

There will be at least 31 vessels retired immediately if these proposals are put into effect, as there were 31 passenger vessels over 50 years old in the Greek merchant marine on January 1, 1930. The average Greek passenger vessel—a term that does not include the three Greek trans-Atlantic liners—has an age of 35 years and a gross tonnage of 686 tons. This passenger fleet of 113 vessels comprises 20.96 per cent of the Greek merchant marine by number, and 5.75 per cent by gross tonnage. The Greek cargo fleet of 419 vessels averages 20 years of age and 2,970 gross tons. There is a surplus of vessels on profitable routes.

PROPOSED MARITIME-INSURANCE PLAN

The question of maritime insurance on hulls affects the Greek merchant marine to-day more vitally than almost any other. For this reason the proposals under this head made by the commission referred to above are of great importance.

It is proposed to establish an organization in the form of a corporation. Provision will be made for an extension of capital and field of operation after the scheme is once in working order. It will work in close collaboration with the English insurance companies, assuming risks in no case on more than a fraction of the insurable

value of the hull. It is hoped that by the severity of its examinations of vessels and inquiries into damage claims it will be able to effect a lowering of the present insurance rates charged Greek vessels.

The capital of the projected corporation, which is temporarily fixed at £100,000 sterling (\$486,650), will be raised as follows: Two-fifths by a levy of 1 shilling per gross ton on the fleets of all Greek shipowners; two-fifths by the State; and one-fifth by a Greek bank. The shipowners will have the right to buy out the shares of the Government and the bank, and it is expected that they will exercise this right so that the organization will eventually be entirely owned and controlled by them.

The commission estimates that the expense to the Government of this project, if adopted without change, will never exceed £200,000 (\$973,300) per annum and that this amount will not be required until the close of the first 5-year period.

GREEK MARITIME CREDIT

PROPOSED BANK OF MARITIME CREDIT

The commission whose findings in relation to shipping services and maritime insurance have just been quoted included in its report a recommendation relating to maritime credit.

The commission advises the foundation of an institution in the nature of a bank which will grant long-term credit to shipowners. Loans to be made by this bank must be devoted three-fourths to the acquisition of new vessels and one-fourth to the operation of vessels actually in service. The State will pay, in cases where it sees fit, as much as 2 per cent of the interest on these loans. If the proceeds of the loans are used to purchase vessels not constructed to order, the vessels purchased must be in first-class condition and not over 15 years old when intended for freight service or 20 years old when intended for passenger service.

Vessels which have their repairs done in Greek rather than foreign yards will be able to secure loans for this purpose from the Marine Credit Bank at the most favorable rates.

PREFERENCES AND RESTRICTIONS

RESERVATION OF THE COASTING TRADE

The coasting trade of Greece was formerly reserved to Greek vessels and the vessels of nations which admitted Greek vessels in their coasting trade. This rule was suspended during the war and suspended again in 1922 because virtually all Greek vessels were then employed in the army and refugee movement from Asia Minor. Before the war Austrian vessels were admitted reciprocally to the Greek coasting trade, and until June 15, 1927, the privilege was extended to these vessels after coming under the Italian flag.

In respect of the coasting trade Acting Commercial Attaché Ralph B. Curren, Athens, reported on August 15, 1929:

The right to engage in the coasting trade in Greek waters in the past had been extended to a number of countries as a result of special clauses included in the commercial treaties between Greece and those countries, but on and after June 15, 1927, such coasting trade was restricted to ships of Greek registry only.

When Greece decided to abrogate all commercial agreements with foreign countries and to conclude new agreements to comply with the new import tariff, it was decided that the coasting trade should be restricted to ships of Greek registry. On January 15, 1927, coastwise trade by ships belonging to other nations was prohibited by a circular sent by the Greek Ministry of Marine to all Greek port authorities. However, as a temporary agreement with Italy providing for the mutual extension of coasting-trade rights was still in force, the prohibition was suspended until after the enforcement of the new Greek-Italian commercial agreement, and the restriction of the coasting trade to ships of Greek registry only was definitely enforced by circular of the Ministry of Marine on June 15, 1927.

Foreign ships are accordingly not permitted to take passengers and cargo from one Greek port to another, but are free to discharge passengers and cargo carried from foreign ports or accept passengers and cargo going to ports located out of Greek waters.

The effect of coasting-trade restriction may be observed in the operations of the coastal fleet during 1926 to 1929 as set out in Table 119 (p. 498), showing a 10 per cent increase in the share of Greek shipping after obtaining the monopoly.

Mr. Curren also reported that the shipowners engaged in coasting trade formed a trust in 1929 for the purpose of coordinating the activities of shipping companies and eliminating excessive competition. The statutes of the trust were submitted to the Minister of National Economy, who signed them on May 22, 1929.

PROPOSED PREFERENCES TO CARGO VESSELS

The Government commission appointed in 1930 to study Greek shipping matters included in its report, besides the recommendations already quoted, a recommendation concerning cargo vessels. The commission found the freight-carrying branch of the Greek merchant fleet to be in a very favorable position. It further found that no demand for financial aid to cargo boats had been made upon it. Nevertheless it proposed:

Lightening of taxes and charges made against this type of vessel in a manner to help them, but not to change the rate of taxation on the personal income of the various shipowners.

No direct control of the age of cargo vessels is to be employed, but a similar effect will be produced by the terms of the establishment of the organization to grant maritime credit.

Excessive insurance premiums exacted of Greek vessels, and particularly of freight vessels, will be reduced by the establishment of a national maritime-insurance organization.

Most Greek cargo vessels are owned by their masters, who operate them with the utmost economy, which accounts for the low freight rates they can quote. Reduction of expenses chargeable to these vessels will enable them to charge still lower freight rates.

NEW ZEALAND

ECONOMIC DEVELOPMENT AND SHIPPING

New Zealand, with a population of only 1,500,000 and an area of 104,000 square miles, presents an important and interesting shipping development, as well as one of the many world examples of the effect that modernized land transportation has upon shipping so far as it relates to domestic commerce. As Consul Bernard Gotlieb, Wellington, explained in a report of March 15, 1929:

The Dominion is an island country isolated from the rest of the world by wide stretches of ocean, and its prosperity is bound up in the maintenance of trade with overseas markets. In the past its development has been largely aided by shipping services, which were essential in the absence of adequate land transport facilities. No part of New Zealand is more than 80 miles from the sea—from which it might be inferred that its people would include a large proportion of seamen, and that with the increase of population and commerce more and more of its domestic trade would be water borne.

Actually the reverse is the case, and fewer ships and men are employed in the coasting and intercolonial trades now than 20 years ago. Laid-up ships for which no employment is offering are familiar objects in several New Zealand ports. Since the war quite a number of old ships have been sold to foreign buyers or have been broken up or otherwise disposed of. It is true that they were obsolete and had seen their best days, but except in a very few cases they have not been replaced by new ships.

The value of the exports from New Zealand in 1929 was £55,579,063 (\$270,475,510) and of the imports £48,797,977 (\$237,475,355). The United Kingdom dominates the trade of New Zealand, supplying approximately 49 per cent of the imports and taking 72 per cent of the exports. The United States in 1929 supplied 18.6 per cent of New Zealand's imports and took 6.57 per cent of its exports.

THE NEW ZEALAND COMMERCIAL FLEET

GROWTH OF THE MERCHANT MARINE

The commercial fleet of New Zealand under registry as of December 31, 1929, consisted of:

TABLE 121.—GROWTH OF THE NEW ZEALAND COMMERCIAL FLEET

Year	Total fleet ¹	Steam and motor vessels ¹	Sailing vessels ¹	Year	Total fleet ¹	Steam and motor vessels ¹	Sailing vessels ¹
	<i>Gross tons</i>	<i>Gross tons</i>	<i>Gross tons</i>		<i>Gross tons</i>	<i>Gross tons</i>	<i>Gross tons</i>
1920.....	139,945	116,611	23,334	1925.....	207,764	186,520	21,244
1921.....	147,832	122,371	25,461	1926.....	202,354	189,454	12,900
1922.....	150,589	127,006	23,583	1927.....	204,760	192,106	12,654
1923.....	164,882	143,164	21,718	1928.....	194,304	181,800	12,504
1924.....	190,144	168,847	21,297	1929.....	211,448	201,563	9,885

¹ Includes vessels employed exclusively in the river service—the so-called "mosquito" fleet of Auckland. Tonnage employed in the foreign trade only comprises 38 vessels of 61,395 gross tons.

Source: New Zealand Official Yearbook, 1931.

Several of the larger vessels of the Union Steamship Co. of New Zealand employed in both the coastal and the foreign trade of the Dominion are registered in the United Kingdom and therefore are not included in the table above.

EMPLOYMENT OF THE FLEET

Growth in the foreign trade more than neutralizes the effect of declines in New Zealand's intercolonial trade in respect of tonnage, and goes a long way toward redressing the great decrease in the number of seamen employed in those trades. Table 122 gives the position of the tonnage and personnel of three general groups of vessels classed as coastal, partly coastal and partly foreign or intercolonial, and foreign only.

TABLE 122.—EMPLOYMENT OF THE NEW ZEALAND COMMERCIAL FLEET, 1908-1914 AND 1920-1929

Year	Coastal trade			Partly coastal and partly intercolonial and island			Foreign trade		
	Number of vessels	Gross tons	Men and boys	Number of vessels	Gross tons	Men and boys	Number of vessels	Gross tons	Men and boys
1908.....	388	50,568	2,926	41	60,549	1,771	53	23,922	742
1909.....	366	50,557	2,810	41	62,818	1,770	34	20,377	653
1910.....	351	46,003	2,598	43	65,797	1,986	34	19,930	700
1911.....	352	48,781	2,671	47	64,836	1,850	33	23,274	747
1912.....	326	44,539	2,464	49	73,727	2,040	20	12,523	479
1913.....	358	45,082	2,730	46	68,259	1,845	29	27,015	912
1914.....	357	44,106	2,738	38	56,740	1,437	18	5,178	160
1920.....	333	44,306	2,479	13	11,026	249	28	17,881	542
1921.....	332	46,836	2,593	11	11,782	256	34	21,894	599
1922.....	324	49,437	2,558	14	13,832	318	30	16,994	517
1923.....	331	47,252	2,431	15	13,901	313	29	26,957	879
1924.....	337	43,436	2,442	10	10,632	235	41	45,854	1,182
1925.....	315	38,975	2,352	11	10,798	243	40	54,319	1,395
1926.....	201	29,364	1,743	6	4,211	111	52	66,012	1,691
1927.....	202	30,731	1,816	6	3,878	111	50	65,520	1,666
1928.....	200	32,867	1,876	6	4,427	136	45	62,906	1,600
1929.....	209	34,448	2,015	9	8,141	215	38	61,395	1,575

Commenting on these figures Consul Gotlieb said:

Reasons for the decline in coastal shipping are not hard to find. Just as the linking of Auckland and Wellington by the Main Trunk Railway sounded the knell of the once-popular east coast passenger steamer service, so the completion of the Oira tunnel and the Midland Railway pronounced the doom of the ships that formerly found regular employment in the coal, timber, and general-cargo services between the east and west coasts of South Island. Other factors are the remarkable postwar development of motor transport and of hydroelectric schemes in New Zealand and the increasing use of oil fuel at sea. Use of oil fuel has hit the coal trade hard and accounts for much of the decline in the coastal and intercolonial collier services and for the employment of fewer men in certain ships and trades.

POSTAL CONTRACT SERVICES

CONTRACTS OF 1869-1907

The Government of New Zealand has paid postal subventions since 1869, when a contract was concluded between New Zealand and New South Wales on the one hand and the Union Steamship Co. and the Pacific Steamship Co. on the other. The contract provided for a monthly service between Sydney and San Francisco via Auckland and was made primarily to facilitate the dispatch of the colonial

mails to and from England through use of the newly completed transcontinental railroads in the United States, shortening the time considerably.

The subsidy was £37,000 (\$180,060) a year, of which New South Wales paid £25,750 (\$125,310) and New Zealand £11,250 (\$54,750), and was continued until November, 1890, when a new contract was concluded and the subsidy much reduced, the amount being based upon the weight of mail carried.

Various changes were made in this contract but the last contract between the New Zealand Government and the Oceanic Steamship Co. (an American line) terminated on November 10, 1906. From that time until April 12, 1907, this company carried the mails at Postal Union rates.

In 1907 the New Zealand Government concluded an agreement with the Union Steamship Co., a New Zealand corporation, for a monthly service between Sydney, Wellington, and San Francisco.

· CURRENT OCEAN-MAIL SUBSIDIES

Consul General W. L. Lowrie, Wellington, in February, 1930, summarized the subsidies paid by the New Zealand Government for the contract conveyance of mails at that time between Auckland and Vancouver, Wellington and San Francisco, and Wellington and Melbourne as follows:

The monthly service between New Zealand and Vancouver is subsidized to the extent of £20,000 (\$97,330) and the monthly service between Wellington and San Francisco costs the Government £25,000 (\$121,665). The Australian service during the first five months it was in operation cost the Government £15,000 (\$73,000). The total charges for and incidental to the conveyance of ocean mail represents an expenditure on the part of the New Zealand Government of £104,058 (\$506,400), divided:

TABLE 123.—ANNUAL POSTAL-SUBSIDY PAYMENTS BY NEW ZEALAND

Service	Annual subsidy	
	Sterling	Equiva- lent in U. S. cur- rency ¹
Pacific services:		
North American overland and Atlantic transit—		
Canada.....	£5,000	\$24,332
United States of America.....	9,000	43,800
Resident agency, San Francisco.....	548	2,665
New Zealand-San Francisco service.....	25,000	121,665
Traveling expenses and allowances to officers employed in the marine post-office in the Vancouver and San Francisco services.....	1,100	5,355
New Zealand-Vancouver services.....	20,000	97,330
Canal Zone transit to Central and South America.....	10	48
Great Britain land transit.....	400	1,945
Total, Pacific services.....	61,058	297,140
Eastern services:		
Land and sea transit, including Africa, India, and Australia.....	1,400	6,810
Great Britain.....	300	1,460
Total, eastern services.....	1,700	8,270
Australian services:		
New Zealand-Australian services (5 months).....	15,000	73,000
Gratuities, landing and shipping.....	20,000	126,530
Postal Union transit charges.....	300	1,460
Total annual ocean-mail payments.....	104,058	506,400

¹ Converted at the par rate of \$4.8665.

The mail service between New Zealand and Australia by way of South Island ports was inaugurated late in 1929 following invitation for tenders for this service. This contract was awarded to the Union Steamship Co. As indicated above, the cost of this service may equal the combined amounts paid for the services to Vancouver and to San Francisco.

Above subsidies have been reduced for 1931-32 in the following amounts: New Zealand-San Francisco service, from £25,000 to £22,500; New Zealand-Vancouver service, from £20,000 to £18,000. The New Zealand-Australia service has been discontinued.

PREFERENCES AND RESTRICTIONS

RESERVATION OF THE COASTING TRADE

No statutory enactments restrict the coasting trade of New Zealand to ships of Dominion registry, Assistant Trade Commissioner Charles F. Kunkel reported under date of July 15, 1929. Such trade is therefore open to the shipping of other countries but is subject to the provisions of section 75 of the New Zealand shipping and seaman act of 1908, which require that such ships shall pay current rates of wages ruling in New Zealand even if such seamen have been employed abroad at other wage scales. Vessels also must conform to sections 21 and 54 of the act, which provide that manning shall be in accordance with the New Zealand manning scales laid down in section 21 and the second and fourth schedules of the act.

EXEMPTION FROM FISCAL CHARGES

PORT DUES

In addition to direct payments to subsidized steamers, an important concession is made by harbor boards by which such vessels are exempted from a large amount of dues collectible under the harbors act. Assistant Trade Commissioner Kunkel on May 31, 1929, reported that an exemption clause is included in the contracts for the Vancouver and San Francisco services—but not to the extension of these services to Sydney. Continuing, the trade commissioner said:

The effect of this exemption is illustrated by its application to the Vancouver service. In the 12 months ended September 30, 1928, the *Aorangi* and the *Niagara* were liable for £9,746 (\$47,425) in respect of port charges, that is, pilotage, berthage, port dues, and the use of tugs. (There is no exemption from light dues, which are paid to the marine department.) They paid £5,166 (\$25,140), the remaining amount being claimed as exemption under the terms of the mail contract. When the vessels are discharging and loading Vancouver mail and cargo at Auckland in the inward and outward trips, the exemption clauses apply; charges are levied when they are doing Sydney business. As it would be impossible to keep an exact tally of the nature of business by minutes or hours, the harbor board has an arrangement with the Union Steamship Co. that one day in port is to be regarded as Vancouver, (and therefore exempted) business and that charges will be levied for the second day.

This exemption clause cost the Auckland Harbor Board £4,580 in 1927-28. The Government pays a subsidy of £20,000 a year for the Vancouver service so that the dues sacrificed by the Auckland board were equivalent to nearly 23 per cent of the subsidy. The payment for the San Francisco service is £25,000 a year, in addition to which the Wellington Harbor Board makes a considerable contribution by the waiving of dues.

PORTUGAL

ECONOMIC DEVELOPMENT AND SHIPPING

Many factors which ordinarily stimulate maritime enterprise are present in Portugal, despite which the development of Portuguese shipping has been slow. Portugal and the Azores and Cape Verde groups, with a population of 6,080,000, are on the principal world trade routes between Europe and Africa, between the Panama Canal and South America, and between North America and the Mediterranean. Portuguese Timor off the north coast of Australia, Macao in the mouth of the Canton River, Portuguese India, Mozambique (Portuguese East Africa), Angola (Portuguese West Africa), and Portuguese Guinea give Portugal a wide spread of possessions and colonial interests separated from the mother country and from each other by long sea routes.

Portugal is a relatively narrow strip of land, with an extensive seacoast and well-known fisheries. Historically the nation was a world power through maritime enterprise before the domination of the sea by Spain.

THE PORTUGUESE COMMERCIAL FLEET

GROWTH OF THE MERCHANT MARINE

In 1900 Portugal had a merchant fleet of 109,000 gross tons, in 1905 there were 101,000 gross tons, and in 1910 this had increased to 114,000 gross tons. At the beginning of the World War a considerable amount of German tonnage was already in Portuguese ports or arrived shortly thereafter. Portugal entered the war and seized these vessels, thereby acquiring 72 steamers of 243,000 gross tons, twice the tonnage of the entire pre-war Portuguese fleet. The new fleet was employed in commercial work or in the cause of the Allies or for the benefit of the Portuguese Government.

As of July 1, 1931, Portugal had 276,357 gross tons of commercial vessels of 100 tons and upwards. All of the gain over the pre-war fleet is in power-driven tonnage, sail tonnage now being 5,000 tons less than in 1913, as the following table discloses:

TABLE 124.—GROWTH OF THE PORTUGUESE COMMERCIAL FLEET

July 1—	Total fleet †	Power-driven vessels †	Sailing vessels †	July 1—	Total fleet †	Power-driven vessels †	Sailing vessels †
	<i>Gross tons</i>	<i>Gross tons</i>	<i>Gross tons</i>		<i>Gross tons</i>	<i>Gross tons</i>	<i>Gross tons</i>
1913.....	120, 579	92, 636	27, 943	1924.....	301, 308	263, 839	37, 469
1914.....	120, 931	92, 429	28, 502	1925.....	299, 921	267, 310	32, 611
1915.....	122, 726	92, 425	30, 301	1926.....	280, 116	251, 037	29, 079
1916.....	334, 491	303, 706	30, 785	1927.....	258, 448	229, 523	28, 925
1919.....	261, 212	230, 226	30, 986	1928.....	246, 126	219, 337	26, 789
1920.....	275, 665	235, 698	39, 967	1929.....	246, 368	219, 379	26, 989
1921.....	296, 847	250, 121	46, 726	1930.....	265, 265	238, 669	26, 596
1922.....	285, 878	237, 339	48, 539	1931.....	276, 337	254, 258	22, 079
1923.....	301, 607	261, 317	40, 290				

† Vessels of 100 gross tons and upwards.

Source: Lloyd's Register of Shipping.

SALE OF GOVERNMENT VESSELS

The 72 seized German vessels were placed under the management of the Transportes Marítimos do Estado (State Marine Transport) and assigned to various routes, but were withdrawn by 1922. Certain of the ships were offered for charter under sealed proposals, but no tenders were received. The Government then appointed a liquidation commission, which was charged with the legal transfer or sale of the vessels, the liquidation of former agencies and material, and the closing of all accounts of the State shipping board.

During the period of liquidation the commission was authorized to charter the vessels but without prejudice to possible sale to private interests. The vessels were authorized to be sold to a Portuguese corporation which should obligate itself to maintain the vessels in services of national interest. For purposes of the sale, "national interest" was defined as (a) colonial service, (b) service to Brazil, and (c) coastwise service. The colonial services included lines to the Cape Verde Islands, to Angola and Mozambique in Africa, and to India, Macao, and Timor. Brazilian services were directed to Para and Rio de Janeiro, and the coastwise services included continental Portugal and the Azores and Madeira Islands.

Late in 1923 a bill was introduced authorizing the sale by auction of all the remaining German vessels.

DISCRIMINATING DUTY LAW OF 1922

Having acquired a relatively important fleet, Portugal sought to establish this fleet in the world trades, and in an attempt to find essential employment following the post-war slump granted to cargo entering Portugal a refund of 10 per cent of the import duty if arriving in vessels of Portuguese nationality. The policy outlined in the preamble of the law was that the country must join in the world's movement for economic defense; that its traditions justified encouragement to shipping; and that the country already had at its disposal an important and efficient merchant fleet which would contribute to improvement of the general economic condition of Portugal.

PROVISIONS IN FAVOR OF PORTUGUESE VESSELS

The methods by which Portuguese vessels were favored by the provisions of the law of January 1, 1922, comprised:

- (1) Goods shipped in Portuguese vessels—
 - (a) Reduction of 10 per cent on all customs duties and surtaxes on imports;
 - (b) Reduction of 10 per cent on all customs duties and surtaxes on exports shipped by Portuguese vessels to Portuguese colonies; 20 per cent reduction in the same charges on goods shipped to foreign countries in Portuguese vessels.
- (2) To Portuguese shipowners: Reduction of 10 per cent in rentals of offices and warehouses, and preferential treatment in the use of quays and wharves and in the dispatch of ships, and new shipyards were to be entitled to tax exemptions.
- (3) To Portuguese officers and seamen: Subsistence in case of illness; pension in case of disability and pensions for widows and minor orphans.

Aid to the shipbuilding industry was provided through construction bounties based upon the tonnage, power, and mechanical equipment, the concession of certain fiscal facilities, and financial assistance in the form of loans.

To these advantages to Portuguese shipping interests was added the provision (art. 3) by which all duties, taxes, and licenses were to be paid by the Portuguese ships in escudos, and by foreign vessels in sterling at par.

SHIPPING AID FUND

In addition to the fund resulting from collecting official charges against foreign vessels on a sterling basis, the Portuguese Government was authorized by this law to provide a special fund in aid of shipping from the following sources:

- (a) Twenty per cent of the price of passages in foreign ships to the Portuguese colonies, provided Portuguese lines exist in the same service;
- (b) A passenger tax of 20, 15, 10, and 5 per cent of the price of passages sold in the territory of the Republic for de luxe, first, second, and third class passages, respectively. This tax was not collected on tickets for passage on Portuguese vessels nor for tickets to Portuguese ports;
- (c) One per cent ad valorem on fish caught or imported, except codfish caught by Portuguese vessels;
- (d) One centavo (\$0.0108) per kilo of fish exported.

Other provisions cover the amount of fines and penalties collected for infractions of the law.

The funds thus accruing were to be distributed:

- (a) Twenty per cent to the general expenses of the Government;
- (b) Twenty per cent for payment of construction bounties and loans to shipbuilders;
- (c) Five per cent to seamen's disability fund;
- (d) Fifty-five per cent to port works and the support of a school for navigation and shipbuilding as established by the law of January 1, 1922.

MODIFICATIONS OF 1928 AND 1929

On November 19, 1928, the rebates on Portuguese customs duties were modified so that foreign merchandise in order to obtain the 10 per cent rebate must be transported for at least half of its distance from abroad in Portuguese vessels.¹ This meant that United States merchandise transshipped at London or Hamburg could no longer obtain the 10 per cent discount in customs duties even if carried in Portuguese vessels from the transshipment points, the distance from such points to Lisbon or the Azores being less than half the distance covered by the goods from the point of origin, the United States.

These regulations were again modified under date of July 19, 1929, by a decision of the Minister of Finance, by which it was determined that the 10 per cent reduction in customs duties should be given to merchandise loaded on Portuguese vessels at the ports of origin and to merchandise transshipped by Portuguese vessels to Portuguese ports from the following European ports: London, Amsterdam, Rotterdam, Antwerp, Hamburg, Havre, Bordeaux, Marseille, and Genoa. To these the port of Bremen was added by customs order of July 8, 1930.

The Portuguese Government has issued a number of decrees modifying the conditions imposed upon foreign vessels entering Portuguese ports. Decree No. 17062, published in the *Diario do Governo* of July 3, 1929, abolished the 10 per cent import duty reduction on tobacco imported into Portugal in Portuguese vessels. The same decree established a bounty of 10 centavos (\$0.0044 at 1929 average exchange) per kilo (2.2046 pounds) of tobacco which in each year, and which, in comparison with the shipments effected in 1928, the vessels of Portuguese companies should fail to transport to the continental republic. This negative provision means that Portuguese shipping companies will be paid this amount for each kilo of tobacco delivered to Portugal by foreign vessels not to exceed the total amount carried by foreign vessels in 1928.²

NAVIGATION BOUNTIES

COLONIAL AND FOREIGN SERVICES

No detailed information is at hand in respect of Portuguese operating subsidies. The British Department of Overseas Trade report on economic conditions in Portugal dated March, 1928, states that in October, 1926, the *Companhia Nacional de Navegação* was granted subsidies of 200,000 escudos (\$10,240 at 1926 average exchange) for each voyage, beginning December, 1922, to reestablish regular services to Portuguese African colonies; and continues:

If seems to be the policy of the Portuguese Government to endeavor to offset the advantages to foreign shipping, as compared with national, of any reductions which may be made in port charges by introducing compensatory legislation in favor of the latter. An extract from the preamble to a recent decree, au-

¹ Circular Note No. 5413, Book 28, p. 363.

² In a radiogram of Sept. 14, 1931, Commercial Attaché R. C. Long, Lisbon, reported the publication of a decree of that date providing for the progressive abolishment of the preferential customs rebate favoring imports into Portugal and the adjacent islands when transported in national bottoms. The preferential rebate of 10 per cent of the duties on imports (except tobacco) will be reduced successively until abolished. On merchandise loaded after Oct. 16, the rebate is reduced to 8 per cent for the current fiscal year.

thorizing the payment to national shipowners of a bonus of 150 escudos per ton discharged on cargoes of coal, sulphur, and manures when imported in Portuguese bottoms, may be cited:

"It is not fair that, while steps are taken to attract shipping to our ports, national shipping interests should be prejudiced, and it is for that reason indispensable that these latter should be granted compensation which may equitably indemnify them."

Information is not at hand concerning earlier attempts to aid the Portuguese merchant fleet. A law became effective January 1, 1891, which provided navigation bounties for long-voyage trades through annual appropriations, which for the first year of operation of the law was set at 25,000 milreis. The bounties were earned on a mileage and tonnage basis.³

This law excludes vessels employed in subsidized services from participation in the navigation-bounty provisions, which action indicates that subsidized contract services were in effect at that time.

COASTAL SERVICES

Vice Consul W. Quincy Stanton, Lourenço Marques, reported in March of 1930 in respect of Mozambique laws favoring Portuguese shipping:

The Mozambique laws restricting coastwise shipping in this colony to ships of Portuguese registry have been again suspended, but the Government does pay an annual subsidy of 1,000,000 Mozambique paper escudos (say \$50,000) to the Companhia Nacional de Navegação (a Portuguese shipping corporation) for the maintenance of a coastal service in Mozambique, and an additional yearly grant of 800,000 escudos (\$40,000) for a direct monthly service between Lisbon and Mozambique.

CONTRACT OF JULY 18, 1930

The services referred to by Vice Consul Stanton are covered by a contract concluded June 30, 1930, approved July 18, 1930, and made effective retroactively from April 8, 1929, for two years, continuing thereafter until either party demands revision two months before the expiration of the term.⁴ Under this contract the Companhia Nacional de Navegação undertakes services twice a month between Lourenço Marques and Mocimboa da Praia, calling at Inhambane, Beira, Chinde, Quelimane, Pebane, Angoche, Mozambique, Porto Amelia, and Ibo, with two steamers, the *Chinde* (1,470 gross tons, built in 1911) and the *Luabo* (1,435 gross tons, built in 1909).

The contracting company undertakes to transport free of charge equipment for the lighthouse service, to reduce its rates 3 per cent on freight and passengers carried for Government account, to reduce its fares by 25 per cent for the carriage of native workers under contract to serve the provincial government, and to reduce by 25 per cent the rate on freight transported for agricultural associations. The company may not increase its rates without consent of the Government, and the Government becomes beneficiary in any reduction of rates. The company obligates itself to place its vessels at the disposal of the Government for service as troop carriers upon demand.

Compensation to the Companhia Nacional de Navegação for this service comprises a subsidy of 1,875 gold escudos (\$2,025 at par of

³ United States Consular Reports, September-December, 1890, vol. 34, p. 416.

⁴ Boletim Oficial, July 19, 1930, pp. 237-238.

\$1.08) for each trip, a total of 45,000 gold escudos (\$48,600) annually. The colonial Government likewise agrees not to increase fees, taxes, or other charges current when the contract was concluded, and grants to the coastal vessels privileges enjoyed by the long-voyage vessels, 50 per cent reduction in towing fees in the port of Lourenco Marques, and the use of the dry dock of said port by merely paying the cost of labor and equipment, without profit to the Government.

PORTUGUESE MARITIME CREDIT

GOVERNMENT LOANS

In November, 1926, two loans were granted to the Companhia Nacional de Navegação. The first, of 10,200 contos⁵ (\$522,220, at exchange of \$0.0512, the average for the year), was for liquidating the obligations of the company to the defunct State shipping organization. The second loan, for 27,600 contos (\$1,413,120), was for financial reorganization, payable in 12 monthly installments of 2,300 contos (\$117,760) each, beginning November 1, 1926. Both loans bear interest at 6 per cent and are repayable in 40 semiannual payments beginning April 1, 1928.

In January, 1927, a 6 per cent loan amounting to 15,800 contos (\$950,000) and repayable in 40 semiannual payments was granted the Companhia Colonial de Navegação for liquidation of its indebtedness to the State shipping enterprise and for reorganization and development.

In November, 1927, a loan on similar terms and for a like purpose was granted the Companhia de Navegação Carregadores Acorianos in the amount of 6,000 contos (\$301,800 at exchange of \$0.0503).

PREFERENCES AND RESTRICTIONS

RESERVATION OF THE COASTING TRADE

In respect of the Portuguese coasting trade, Consul General Samuel T. Lee, Lisbon, reported on May 5, 1930:

Portuguese legislation governing the maritime carrying trade (freight only) is based upon the classification of this movement as (a) "longo curso" (ocean trade) or "grande cabotagem" (long-distance traffic) or (b) "pequena cabotagem" (short-distance traffic).

There are no restrictions regarding the carrying of passengers and the personal baggage accompanying them. Article 16 of decree No. 8383 of September 25, 1922, reads:

"Maritime traffic between continental Portugal, the adjacent islands (Azores and Madeira), and Portuguese colonies is reserved to the Portuguese flag, as is reserved likewise the maritime traffic between the ports of each colony or between the colonies themselves, as long as the trade is served regularly by Portuguese vessels.

"From the foregoing are excepted those ports regarding which there exist between Portugal and other powers agreements regulating the trade."

Portuguese ports on the Atlantic coast of Africa between latitude 2° 30' south and the mouth of the River Loge in Angola, including the estuary of the Zaire (also known as the Congo), are open to all nations for coasting trade. (Angola decree of March 18, 1925, art. 150.)

No Portuguese vessels serve regularly the colonies of Goa, Damao, and Diu in India, Timor in the East Indies, nor Macao in China, ocean trade being consequently open to all nations. Their intracolonial trade is likewise open to all nations.

⁵ A conto is 1,000 escudos.

TEMPORARY PARTICIPATION OF FOREIGN SHIPS

Just recently this exclusion of foreign ships from the traffic between continental Portugal and its colonies was temporarily relaxed, order No. 7155 of the Department of the Merchant Marine providing:⁶

That the passenger traffic between continental Portugal and the adjacent islands or the ports of St. Vincent of Cape Verde, Lobito, in Angola (when the passengers are destined for the Belgian Congo), Lourenco Marques and Beira, in Mozambique, may be temporarily discharged by foreign shipping during such time as the present circumstances exist and until the contrary is determined.

EXEMPTION FROM FISCAL CHARGES

PREFERENTIAL PORT DUES

Inclusion in this study of a general discussion of vessel charges has not been attempted because of the voluminous nature of such charge schedules and the frequent changes made in them. In the case of Portugal, however, certain examples may be cited.

Decree No. 7679 of August 31, 1921, established sundry vessel charges for the port of Lisbon, the principal Portuguese port, under which all Portuguese vessels entering the port were charged 6 centavos per 10 gross tons for each 30 days, and foreign vessels were charged on a sterling basis of 8¼ pence per 10 gross tons for each 10 days. At par this would work out at about \$0.06 and \$0.51 for 30-day periods, but inasmuch as Portuguese vessels paid on a paper escudo basis and the escudo at that time was worth only \$0.07 instead of \$1.08 the result was an infinitesimal charge for the Portuguese vessel.⁷

Docking costs were 8 centavos and 11 pence for each 10 gross tons for the initial period, fresh water was 36 centavos and 1s. 7¼d., respectively, per cubic meter at the dock, and other taxes and light dues were payable on the sterling basis for foreign vessels and on the escudo basis at reduced rates for Portuguese vessels.

MODIFICATION OF VESSEL CHARGES

In 1927 several modifications in the various vessel charges were made. Decree No. 14647 of December 3, 1927, reduced cargo taxes, loading and discharging; but section 2 provides for gold-basis payments by foreign vessels, while the rates are reduced by 50 per cent for Portuguese vessels and are payable in escudos.

Light dues were reduced by decree No. 14664, with special modifications for national vessels and gold-basis payments for foreign vessels. Revenues from light dues were apportioned 10 per cent to the general revenues of the Government, 50 per cent for light-house service, and the remainder to the merchant-marine funds.

Decrees Nos. 14665 and 14666 reduced consular fees, and decree No. 14646 reduced passenger taxes.

Despite the policy comprised within the scope of the various laws and decrees the effect has not been far-reaching. The proportion of

⁶ Report of Consul General Carl F. Deichman, Lisbon, July 22, 1931.

⁷ Report of American Minister J. G. South, Lisbon, Aug. 31, 1931.

Portuguese vessels entering and clearing Lisbon during 1928 and 1929 ranged from 11 to 14 per cent of the total number of all vessels.

EQUALIZATION OF SHIPPING AND PORT CHARGES

Decree No. 19306, published in the *Diario do Governo* of February 3, 1931, relative to shipping and port charges, contains the following provisions:

Art. 1. Commercial vessels, national or foreign, shall, in a general manner, be subject to the same shipping and port charges in the ports of continental Portugal and the adjacent islands (Azores and Madeira).

Art. 2. Vessels of the Portuguese merchant marine shall receive all the privileges or benefits now given, or that may be given, directly or indirectly, to any foreign vessel.

Art. 3. The Government will publish the regulations indispensable for the convenient execution of this decree prior to June 30, 1931.

Art. 4. All legislation to the contrary is hereby revoked.

RUSSIA

IMPERIAL RUSSIA

RUSSIAN VOLUNTEER FLEET

Two years before the World War, on July 5, 1912, while on board the yacht *Standard*, the Czar of the Russias signed a new charter and by-laws for the Russian Volunteer Fleet. This was one of the last official acts of the Russian Government in the culmination of a long official relationship with Russian commercial shipping. The document itself bespoke concisely that relationship.¹

Section 1 of the charter defined the Russian Volunteer Fleet as "an enterprise founded upon contributions" which had for its purpose "the maintenance of maritime steamship communications, for the transportation of passengers and freight in order to help the development of Russian commerce and merchant fleet." Section 2 placed the enterprise "under the supervision of the Minister of Commerce and Manufactures."

Subsidies were provided by section 4: "In proportion to the obligations imposed upon the Volunteer Fleet by the Government, the fleet may receive subventions from the State treasury, such subventions to be applied for and appropriated by legislative procedure for a definite period in a definite amount."

The military possibilities of the Volunteer Fleet lay in section 7, which stated:

In case of a partial or general mobilization, as well as in other emergency, every vessel and any property on shore belonging to the Volunteer Fleet shall be transferred, by the order of the Minister of Commerce and Manufactures, for the temporary use or into the full possession of the War and Navy Departments. The conditions of transfer of the vessels and of the property on shore shall be determined by the Minister of Commerce and Manufactures with the concurrence of the Ministers of War and of the Navy, and also of the Minister of Finance and the State auditor.

ADMINISTRATIVE PROVISIONS OF CHARTER OF 1912

Management.—Management of the Volunteer Fleet was vested in a council, a board of directors, and a managing director. The manner of appointing the membership of this management throws further light on the relationship of the Government with the enterprise. The council was to have a chairman appointed by the Minister of Commerce, and 13 members, of whom five were to be appointed by five Government department heads, namely, Commerce and Manufactures, War, Navy, Finance, and the State auditor's office. Eight members were to be appointed by various commercial, industrial, and agricultural organizations, headed by the Imperial Society for the Aid of the Russian Merchant Marine.

¹ *Sobranie Usakonenii*, pt. 1, No. 152, p. 2845, July 18, 1912.

The board of directors included a chairman and four members, three of whom represented the war, navy, and State auditor's office, appointed with the approval of the cabinet. The managing director was nominated by the board of directors and appointed by the Minister of Commerce and Manufactures. The seagoing and shore staffs were drawn preferably from army and navy reserves or active members of the navy.

Distribution of accounts.—Accounting was under the supervision of the State auditor's office. After deducting operating costs from operating revenues the remainder was distributed to a sinking fund, a marine-insurance fund, and a reserve fund. The sinking fund was made up from 5 per cent depreciation of the initial cost of the steel ships, 3 per cent of the initial cost of stone and brick buildings owned, and 10 per cent of the initial cost of wooden vessels, also of machinery and movable property. The insurance fund was made up from 2 per cent of the balance value of the vessel property. The reserve fund included the remainder of any profits and certain bonus funds for employees.

Cargo financing.—The charter provided authority for an operative procedure which was unique in the business of companies so closely allied with the National Government as the Volunteer Fleet. This consisted in the provision for loans upon cargo carried, and authorized the issuance of short-time loans on goods not easily damaged, which were insured, during the period while such cargo was in transit or in the warehouses of the Volunteer Fleet, up to an amount not exceeding 60 per cent of their value. Such loans were authorized on goods of both Russian and foreign origin.

ORIGIN AND DEVELOPMENT OF THE COMPANY

In 1878, following the Russo-Turkish War, when war with England threatened, a fund was established by public subscription from which four vessels were purchased at a cost of 4,000,000 rubles (\$2,060,000 at the pre-war par of \$0.515). These vessels were of approximately 3,200 tons each and of a speed of 13 or 14 knots, and were equipped primarily as cruisers. The public committee on donations, under whose auspices the funds had been raised, had charge of the vessels, and when danger of war with England was past the vessels were used as troop transports on the Black Sea, after which they were used for commercial service between European Russia and the Pacific, becoming primarily a Pacific operation.

In 1879 the vessels were organized into a commercial service under the title "Volunteer Fleet Co.," due partially to the voluntary and public character of the original fund from which the vessels were purchased and partially to the national-defense purpose for which the fleet was acquired.

In 1883 the company was abolished and the fleet was placed under the general supervision of the Ministry of the Marine and under the immediate control of a committee consisting of representatives of the Ministries of Marine and Finance and the State auditor's office.

RUSSIA'S PRE-WAR TONNAGE

The Russian Volunteer Fleet was not the leading Russian shipping company in seniority of organization or in size of fleet, but may be

considered the most important from its official relationship and from the public character of its origin. On January 1, 1914, its fleet comprised 32 steamers of 116,422 gross tons.

On the same date the entire Russian commercial fleet numbered 3,700 vessels of 783,000 net register tons, according to the Russian Yearbook for 1915. The same authority classifies the steam-driven fleet at 1,044 vessels of 513,000 net register tons. According to Lloyd's Register the Russian steamer fleet on July 1, 1914, comprised 716 vessels of 790,075 gross tons, in vessels of 100 gross tons and upwards.

Nearly one-half of the steam fleet was employed in the Black Sea and the remainder was divided almost equally between the Baltic and Caspian Seas, with less than 8 per cent in the White Sea and the Pacific Ocean. The Caspian fleet consisted principally of tankers.

The power-driven fleet employed nearly 19,000 persons, including 4,000 officers, and the sailing fleet employed 12,700.²

CONTRACT SERVICES

RUSSIAN STEAM NAVIGATION & TRADING CO.

The Russian Steam Navigation & Trading Co. was the oldest and most important of the subsidized Russian lines before the World War. It was organized in 1856 under the auspices of the Russian Government, which subscribed a portion of the capital stock. The company's operations were confined principally to the Black Sea and Mediterranean trades, with extensions to the Persian Gulf.

Its entire career was one of subsidized service under contract with the Government. By the time the World War broke out the subsidies had been reduced, due to the company's successful commercial operation. These operations resulted in 6 per cent dividends being paid on its capital stock of 10,000,000 rubles (\$5,150,000).

The final subsidy contract of this company was authorized by law for a period of 16½ years from July 1, 1911. The services were confined to the Black Sea and the Mediterranean; subsidies were on a mileage basis and were not to exceed in any year 900,000 rubles (\$463,500). The company was required under the terms of the 1911 agreement to purchase six new steamers, on which the Government authorized construction bounties of 90 rubles (\$46.35) per gross ton on the hulls and 35 rubles (\$18.03) per indicated horsepower for the engines, if constructed in Russian shipyards.

ARCHANGEL-MURMAN STEAMSHIP CO.

The Archangel-Murman Steamship Co. was the successor of the White Sea Murman Steam Navigation Co., which was organized in 1870 with an annual subsidy of 30,000 rubles (\$15,450) for services between Archangel and the Murman shore. Upon the failure of the original company in 1875 the Archangel-Murman Co. was established with an annual grant of 50,000 rubles (\$25,750). In 1880 the grant was increased to 55,000 rubles (\$28,325) a year, effective until 1895. On May 15, 1895, a new 20-year agreement was concluded for an

² Russian Yearbook, 1915, p. 287.

increase in the number of services and vessels at a subsidy of 80,000 rubles (\$41,200). The dividend rates were fixed at 5 per cent, with an additional 1 per cent if available, above which any remainder was to be divided 25 per cent as a bonus fund to employees and management and 75 per cent equally between an insurance fund and a subsidy diminution fund.

The Government subscribed for about 56 per cent of the total capital, or 620,000 rubles (\$319,300) out of a total of 1,112,800 rubles (\$573,100).

On January 1, 1914, the fleet of this company comprised 16 vessels of 11,187 gross tons.

RUSSIAN VOLUNTEER FLEET

A special subsidy was granted the Volunteer Fleet by the law of February 24, 1886. The company agreed to specified sailings between Odessa and Vladivostok with calls at specified way ports. The total annual mileage to be covered was 140,000; the rate per mile was 4.25 rubles (\$2.189); and the total annual amount authorized was 595,000 rubles (\$306,425). The contract was for six years.

The 6-year contract was renewed for a period of 10 years by a decree of January 6, 1892; and for a further period of 10 years by the law of February 4, 1902, which placed the Volunteer Fleet completely under State control.

Additional subsidies and additional services were called for by the law of June 15, 1908, which provided for eastern services in the Vladivostok-Tsuruga and Vladivostok-Shanghai-Nagasaki trades and also for a 1-year service between Vladivostok and Nikolaiefsk. The first two services were for 11 years with 14-knot vessels, covering about 220,000 miles annually for an annual average subsidy of 628,000 rubles (\$323,000), the total for the 11 years being 6,905,000 rubles (\$3,556,000). The 1-year service called for 33,000 miles for a grant of 75,000 rubles (\$38,625).

Further subsidies were granted under the law of March 29, 1909, for services between Vladivostok and the Bering and Okhotsk Seas for about 55,000 miles annually.

Two years later, on March 29, 1911, a law was passed which provided that vessels in the Far East services were to be of not less than 10 knots, and the subvention for 1912 was fixed at 331,000 rubles (\$170,465). Under this law the Volunteer Fleet Co. was required to build six new vessels in Russian shipyards, having accommodations for a limited number of passengers. For this purpose the Government agreed to advance 3,000,000 rubles (\$1,545,000), to be repaid in 20 annual installments without interest. Construction bounties to the shipyards building the required vessels were provided for in the amount of 900,000 rubles (\$463,500) each year for 1911 and 1912.

KAVKAZ & MERCURIUM STEAMSHIP CO.

The Kavkaz & Mercurii Steamship Co. was a subsidized company maintaining services on the Caspian Sea for which the Government authorized an annual grant of 287,000 rubles (\$147,800) from 1901 to 1914, the contract expiring on January 1, 1914. The company

refused to renew the old contract under the same terms and demanded an annual grant of 639,000 rubles (\$329,100), whereupon the Government called for bids for the services. No information is at hand in respect of the results of the bidding.

RUSSO-DANUBE STEAMSHIP CO.

In 1903 the Russo-Danube Steamship Co. went into liquidation and under the law of June 10, 1903, was reestablished by the Russian Government, which purchased the property and took over the operations of the company, thus making it more nearly a Government enterprise than the Volunteer Fleet. Generally the affairs of the company were under the same Government supervision as the Volunteer Fleet. The company's activities were confined principally to Black Sea traffic.

For tug and freight services between Odessa and the Danube delta the operations of the company were provided for by annual grants of 313,000 rubles (\$161,200) from 1901 to 1914-15. For the period 1915-1925 it was proposed to increase the annual grant to 357,000 rubles (\$183,850).

OTHER SUBSIDIZED SERVICES

In addition to a subsidy of 75,000 rubles (\$38,600) paid to Count Keiserling for services between Vladivostok and St. Vladimir Bay and Imperial Harbor, other services were proposed immediately before the World War, regarding which the Russian Yearbook for 1915 stated:

The Bulletin of Laws of March 17, 1914, publishes a law authorizing the Minister for Commerce to conclude a contract with a Russian shipping company for a term of three years from January 14, 1915, for a regular service along the Caucasus littoral of the Black Sea between Anapa and Sukhum, calling at various intermediate ports. The company undertaking the contract will receive an annual State subsidy of 60,000 rubles (\$30,900), and must carry out not less than 94 sailings per annum, with a total mileage of about 43,000.

A new line of passenger and cargo steamers is to be started shortly between Novorossisk and Batum, calling at all the intermediate ports on the Caucasian coast of the Black Sea. The Russian Steam Navigation & Trading Co. is said to be running the service.

Subsidies were granted for services on the Shilka, Amur, Lena, Yenisei, Ob, and Irtys Rivers in Siberia and on Lake Baikal. For the 7-year period 1906-1912 3,344,775 rubles (\$1,722,560 in all, or \$246,000 per year) was authorized for these services.

NAVIGATION BOUNTIES

In 1914 the Russian Government instituted a system of general navigation bounties for the purpose of developing the coasting trade in the Far East. This was intended as a temporary policy, under the provisions of which Russian vessels of at least 20 gross tons were to receive bounties of 5 kopecks (2.6 cents) per ton per mile. Vessels engaged in the coasting trade between points of the Priamur Government north of latitude 50° were to be paid 75 kopecks (38.6 cents) per ton per mile, provided they were not receiving other subsidies.*

* The Russian Yearbook, 1915, p. 289.

CONSTRUCTION AND REPAIR BOUNTIES

In addition to the special construction bounties granted under certain subsidy contracts previously mentioned, a system of general construction bounties was inaugurated by law in June, 1912. This law granted bounties on construction in Russian shipyards in the Russian Empire, excepting Finland or any area in which there was duty-free importation of shipbuilding materials.

Construction bounties, to be paid on vessels whose construction was begun following the enactment of the law, were based upon gross tonnage and power development, ranging from 105 rubles (\$54.08) per ton on small vessels to 65 rubles (\$33.48) per ton on vessels of 3,000 gross tons and upwards. Power-plant bounties were paid at the rate of 35 rubles (\$18.03) per indicated horsepower.

Repair bounties were granted at the rate of 1.50 rubles per pood (\$0.773 per 36.1 pounds) of metal used in the construction of boilers, and 5.50 rubles (\$2.83) per pood for new main or auxiliary machinery.

Construction and repair bounties were conditioned upon the use of material of Russian origin. Foreign materials were allowed only if they were named in a separate list published annually by the Ministry of Commerce and Industry.

Russia's total shipping subsidies as provided by the budget estimates, including ocean and river navigation and construction bounties, amounted to 4,698,500 rubles (\$2,419,700) for 1910, 5,000,000 rubles (\$2,575,000) for 1911, 7,487,000 rubles (\$3,855,800) for 1912, 5,337,500 rubles (\$2,748,800) for 1913, and to 4,279,000 rubles (\$2,203,700) for 1914.⁴

RUSSIAN MARITIME CREDIT

The Russian Government after 1904 made loans to persons constructing ships in Russian yards. These loans did not exceed two-thirds of the value of the Russian materials used. They were made at interest rates of 3.8 per cent and were repayable in 20 years. Comparatively little advantage was taken of this privilege; in the first two years of the law's operation loans amounted to only 70,000 rubles (\$36,050).⁵

Other loans in greater amounts and in accordance with contract provisions of subsidized services have been discussed under the contract provisions of the various companies.

PREFERENCES AND RESTRICTIONS

RESERVATION OF THE COASTING TRADE

The privilege of operating in the coasting trade of Russia between ports situated in the same sea has long been reserved for vessels operating under the Russian flag. This reservation was greatly extended by the decision of the Council of the Empire, sanctioned by imperial decree of May 29 (June 10), 1897, which took effect January

⁴ Russian Yearbook, 1915, p. 289.

⁵ Huldemann: Die Subventionen der Ausländischen Handelsflotten und ihre Bedeutung für die Entwicklung der Seeschifffahrt, p. 32.

1 (14), 1900. This decree provided that the entire coasting trade of Russia—that is to say, the carrying of freight and passengers between Russian ports situated upon different seas as well as between Russian ports situated upon the same sea—should be the exclusive privilege of Russian subjects and of vessels navigating under the Russian flag.

EXEMPTION FROM FISCAL CHARGES

IMPORT DUTIES

In 1898 Russian shipowners were granted the privilege of importing free of charge ships purchased abroad. This applied to ocean-going vessels of iron or steel and to steam yachts, dredging and similar machines for deepening harbors and rivers, ice breakers, floating docks, and vessels acquired for the navigation of the Danube under the Russian flag. At the same time admission free of customs duty was granted in the case of anchors, chains, and wire hawsers imported for the fitting out or rigging of seagoing sailing vessels. This system of exemptions was continued from time to time under various laws until the end of 1912, when it was intended to discontinue the privilege, but later this practice was extended to January 1 (14), 1928.⁶

REIMBURSEMENT OF CANAL DUES

The practice of reimbursing Russian steamship companies for Suez Canal dues was instituted as early as 1879 and was extended by imperial decree of June 2 (14), 1899, to include the Russian steamers sailing from a Russian port to a port on the Indian or Pacific Oceans via the Suez Canal or vice versa. This decree provided for a reimbursement of the full amount of the canal dues in the case of Russian steamers bound for or sailing from any Russian port in the Far East, and for a reimbursement of two-thirds of the full dues for Russian steamships bound for or sailing from ports on the Indian Ocean and non-Russian ports on the Pacific Ocean. It is estimated that in the years 1879 to 1906 the Russian Government expended some 8,600,000 rubles (\$4,429,000) in reimbursement of Suez Canal dues.

The system of reimbursement of canal dues was materially altered by new conditions introduced by a law of 1910, which continued the system until January 1, 1912, when it was further prolonged to 1917.

⁶ Law of June 5 (18), 1912, referred to in British Board of Trade Journal, Vol. LXXVIII, 1912, p. 100.

SOVIET RUSSIA

The sea frontiers of Russia are now greatly changed. With the loss of Finland, Poland, and the Baltic States of Estonia, Latvia, and Lithuania went the entire Baltic seacoast except the south-eastern shore of the Gulf of Finland. From Transcaucasia went territory to Turkey, and on the west of the Black Sea Bessarabia became part of Rumania.

While a considerably larger amount of pre-war national tonnage was registered in the Black Sea and Sea of Azov than in the Baltic Sea, the latter was the more important to commercial shipping because the proximity of the maritime races of the Baltic and the nearness of the north European shipyards and shipping operations provided a natural stimulus to the industry. Control of Black Sea operations and of the Dardanelles was essential to the development of Asiatic Russia and the controlled movement of wheat and agricultural products by water to Europe.

CHANGES IN RUSSIAN SHIPPING SINCE 1914

When compared with the commercial fleets of other maritime nations the Russian commercial fleet had grown slowly and occupied a relatively unimportant place among European fleets despite the active aid toward its development given by the Government. Measured in terms of national tonnage, Russia's direct public expenditures on commercial shipping exceeded those of any other country.

The World War and subsequent events had a profound effect upon Russian shipping. The following discussion of the postwar situation is based upon information published in the Soviet Union Yearbook and upon statements appearing from time to time in the Scandinavian Shipping Gazette, of Copenhagen, dealing particularly with shipping in the Baltic, as well as other sources of information dealing with the subject of postwar development of shipping and commerce in the Soviet Union.

REDUCTION OF THE FLEET

Through military losses in the World War, approximately 183,000 gross tons, or 23 per cent of the Russian commercial fleet of 1914, were destroyed. The losses due to the general confusion of the revolution were more severe, for the military operations of the White Armies were centered on the coast, and upon their defeat these armies returned to the ships and sought refuge in foreign countries, taking the ships with them. Thus the largest and best Russian vessels were lost to the incoming Government, which was left with small vessels and a good deal of tonnage that had been laid up and was out of condition, besides some captured German tonnage, the restitution of which Germany had renounced in the treaty of Rapallo. Russian yards were not equipped for the repair of the German ships, except provisionally. Temporary repairs were made, after which they were taken to Germany for overhaul. After this the vessels which could classify for British or German Lloyd were so classed.

In August, 1923, the Soviet merchant fleet contained 1,137 vessels of all classes and a total of 513,394 register tons, including the Caspian fleet, which comprised mostly tankers. This was not all seaworthy tonnage, but included obsolete vessels and others which could not be classified. The Scandinavian Shipping Review stated early in 1924 that, excepting the Caspian fleet, the Russian fleet was practically destroyed during the world and civil wars; that at that time there did not exist more than 100,000 gross tons of seaworthy Russian tonnage; that while the Soviet Government was making efforts to recondition this tonnage no considerable improvement could be expected until foreign tonnage could be purchased.

NATIONALIZATION OF MARITIME SERVICES

In the change in principle of administration of national affairs introduced by the establishment of the Union of Soviet Socialist Republics the central Government, representing the peoples within the Union, exercises complete authority in all matters relating to the central administration of the Union, such as armed defense, foreign relations, transport and communications, and political security. All forms of transport are under the supervision of the People's Commissariat for Transport, of which the Central Administration for Marine Transport has charge of the sea services to foreign countries.

By decree of January 26, 1918, the Government of the Soviet Union nationalized both the former Russian Navy and the commercial fleet, which by this act became State property.

ESTABLISHMENT OF STATE MERCANTILE FLEET

After the nationalization of shipping, the State Mercantile Fleet was created, existing at first as four separate shipping agencies, namely, the northern, the Baltic, the Black Sea and Sea of Azov, and the Caspian shipping agencies, the last named of which was absorbed by the oil industry in 1923, 90 per cent of its work being concerned with oil transport. The State Mercantile Fleet has not a complete monopoly in the control of trading vessels, since State organizations, cooperatives, and some private owners also operate shipping services.

In 1920 the northern operations were restored by sailings in the sea routes between the Ob and Yenisei Rivers and England. By 1922 lists of the ships and their classification were issued and in August, 1922, the State Mercantile Fleet was organized, comprising the remaining vessels of a number of companies including the Volunteer Fleet. By decree of January 11, 1922, the Volunteer Fleet was called upon to resume its activities with available equipment.

DECREE OF JANUARY 26, 1930

On January 26, 1930, the Central Executive Committee and the Council of People's Commissaries of the Union of Soviet Socialist Republics issued the following decree:†

† Soviet Union Yearbook, 1930, pp. 236-237.

(1) That All-Union marine and river transport companies, working on commercial principles, be formed by the People's Commissariat for Transport.

(2) That to the All-Union marine transport companies be transferred: (a) All the mercantile seaports, including Leningrad, with all the properties belonging to them; (b) the entire assets and liabilities of the joint-stock companies "Sovtorgflot" and "Goskaspar," as per statement of accounts for January 1, 1930.

(3) That to the All-Union river transport companies be transferred: (a) All the river shipping which is within the authority of the People's Commissariat for Transport; (b) all the property which is within the administrative authority of the internal waterways.

(4) That the All-Union marine and river transport companies be entrusted with: (a) The direction and utilization of all the property, shipping and other enterprises, under their control, the organization of new shipping and other enterprises; supervision over capital construction in the respective branches of transport; (b) the realization of the administrative functions of the People's Commissariat for Transport in respect of marine and river transport, among them the functions of superintendence and regulation.

(5) That the All-Union marine and river transport companies operate in accordance with statutes which have been ratified by the People's Commissariat for Transport in agreement with the People's Commissariat of Workers' and Peasants' Inspection of the Union of Soviet Socialist Republics.

(6) That the People's Commissary for Transport be authorized to entrust the general direction of marine and river transport to one of his deputies.

(7) That the People's Commissary for Transport be authorized to submit, within the period of one month, the changes of the law in operation, arising from the present decree, for ratification by the Council of People's Commissaries of the Union of Soviet Socialist Republics.

PRESENT-DAY COMMERCIAL FLEET

In 1924 a commission was set up to study the rebuilding of the merchant fleet. A result was the laying down of four lumber carriers and two fast freighters for perishable cargo and the conversion of three cruisers into oil tankers.

In 1925, 29,446 gross tons of new ships were laid down in Russian shipyards; in 1926, 4 vessels; in 1927, 20 vessels; in 1928, 15 vessels; and by January, 1929, 30 vessels were under construction. Additional construction in German yards and purchase of foreign tonnage brought the total up to the proposed 5-year program, by which it is planned to build 156 vessels of 554,100 gross tons between 1928-29 and 1932-33 for the Sovtorgflot; 71 vessels of 184,800 gross tons for the Caspian Steamship Co., and 9 vessels of 66,000 gross tons for the Naphtha Syndicate.

As of July 1, 1931, Lloyd's Register credits the Union of Soviet Socialist Republics with a commercial fleet of 386 vessels of 603,836 gross tons in vessels of 100 gross tons and upwards. Of this fleet, 383 vessels of 600,835 gross tons are power-driven steel vessels. The total gross tonnage of 1931 was therefore equal to 76 per cent of the 1914 tonnage according to the same authority.

This tonnage included 11 vessels of 5,000 gross tons or over, 26 vessels between 4,000 and 5,000 gross tons, 29 vessels between 3,000 and 4,000 gross tons, and 53 vessels between 2,000 and 3,000 gross tons.

During 1929 there were launched in the Union of Soviet Socialist Republics 16 vessels of 33,614 gross tons.⁸

⁸ Since 1914, complete launching returns from Russia have been available only for the years 1926-1929. (Lloyd's Annual Summary, 1930.)

While all national tonnage of the Soviet Union is not operated by the Government, the Sovtorgflot, or State fleet, is the principal unit. According to Lloyd's Register, the Sovtorgflot on July 1, 1931, comprised 452,242 gross tons, or 74 per cent of the national tonnage. Included in this fleet are 17 vessels of 46,052 gross tons built in 1928, 20 vessels of 42,559 gross tons built in 1929, 27 vessels of 48,908 gross tons built in 1930, and 4 vessels of 9,448 gross tons built in 1931. Only 1 of the last group is of more than 1,500 gross tons.

RECOVERY OF SEA TRADE

Before the World War the foreign trade indicated an increase of about 50 per cent every five years. The division of traffic between land and sea traffic is shown in Table 125.

TABLE 125.—RUSSIA'S FOREIGN TRADE, BY METHOD OF CARRIAGE, 1913

Moving—	Volume of foreign trade		Value of foreign trade		
	Tons	Per cent of total	Rubles	Equivalent in United States currency ¹	Per cent of total
By sea.....	27,700,000	71.5	1,789,000,000	\$921,000,000	61.6
By land.....	11,060,000	28.5	1,105,000,000	569,000,000	38.4
Total.....	38,760,000	100.0	2,894,000,000	1,490,000,000	100.0

¹ Converted at the pre-war par rate of \$0.515 to the ruble.

The development of water-borne commerce since 1920 as compared with the pre-war movement is shown in Table 126.

TABLE 126.—WATER-BORNE-COMMERCE OF SOVIET RUSSIA

Year	Foreign trade by sea			Coasting trade	
	Cargo tons (metric)	Per cent of 1913 total	Per cent carried in Russian vessels	Cargo tons	Per cent of 1913 total
1913.....	27,700,000	—	—	11,684,000	—
1921.....	746,000	2.6	4.9	3,380,000	28.9
1922.....	2,357,000	8.5	8.6	3,548,000	30.4
1923-24.....	4,875,000	21.2	9.1	4,955,000	42.4
1924-25.....	7,604,000	27.4	7.8	4,909,000	42.0
1925-26.....	9,029,000	32.6	7.0	5,784,000	49.5
1926-27.....	10,535,000	38.0	8.0	6,500,000	55.6

Source: Soviet Union Yearbook.

PREFERENCES AND RESTRICTIONS

RESERVATION OF THE COASTING TRADE

Foreign vessels are not allowed to engage in coasting trade between the ports of the Union of Soviet Socialist Republics, although they may be allowed to engage in the coasting trade by way of con-

cession for single voyages where the Government is interested in the voyage.⁹ According to article 22 of the commercial treaty with Italy, Italian vessels have the right to carry on coasting trade between distant ports and small coasting trade en route for two years.

Foreign firms and individuals are not allowed to own or to be part owners of vessels navigating under Russian registry nor to be members of joint-stock companies possessing such vessels. Exception is made with regard to mixed companies if such rights have been conceded in their statutes or by special decrees.

⁹ Soviet Union Yearbook, 1925, p. 44.

SPAIN¹

ECONOMIC DEVELOPMENT AND SHIPPING

During a cycle of 400 years Spain became a dominant force of the world by right of discovery and penetration into unknown regions by means of ships, transmuted a flat world into a sphere, expanded its territories in every direction, and remained the supreme sea power for two centuries; then gradually lost territory and maritime status. Within this 400-year period there has been a continuous recognition of the importance of Spanish sea power, which has been kept alive even after many of the influencing factors have ceased to exist. Despite native supplies of iron ores and coal with which to build steel ships, a comprehensive program of construction bounties is in force; despite a native seafaring tradition and proximity to the trade lanes of the world, general navigation bounties are paid; despite the lack of colonies in far regions, a comprehensive system of contract services still exists.

GENERAL SHIPPING SITUATION

Spanish shipping during the twentieth century has not kept pace with the rest of Europe, where agricultural and commercial development has given rise to increased maritime enterprise. A population of only 22,000,000 occupies a territory as large as France; a great part of the productive land is not irrigated; mining lacks modern equipment and capital for development; national capital is not sufficient to develop national industries, and natural resources must to a large part depend upon foreign capital for exploitation. There are less than 10,000 miles of railway in Spain, and of inland waterways there are none of importance. Added to these conditions is the loss of overseas colonies.

The Spanish shipping industry did not take advantage of its position during the war except to expand its activities and profit greatly through war operations. It distributed huge dividends to stockholders and upon meeting the slump of 1921 found itself without both new equipment and the funds with which this equipment could be obtained.

SPAIN'S POLICY OF SHIPPING ENCOURAGEMENT

The Spanish budget for 1930 provided 68,158,575 pesetas (\$10,000,000 at 1929 average value of the peseta) for construction and navigation bounties and for contract services, and under the provi-

¹ The manuscript for this section was completed before the events of April, 1931, took place. So far as can be ascertained, the new Spanish administration has made no announcement of its future maritime policy. No new enactments affecting commercial shipping had been received in the Bureau of Foreign and Domestic Commerce up to September 1, 1931.

sions of the law of August 21, 1925, a similar amount is called for annually for 20 more years. The Spanish maritime-protection system entered upon a period of general readjustment during the latter part of 1929 and the early part of 1930, but available information on the subject does not indicate any contemplation of the increase of budget provisions during the life of the basic law of 1925. A maritime-credit system is under consideration; but indications are that any credit scheme which may be established will call for no State expenditures, but will take the form of the lending of Government credit against mortgages on high-class vessel property.

Spanish policy in dealing with aid to shipping is unique in its determination to maintain communication between Spain and Spanish-speaking peoples of common faith and customs, inasmuch as political reasons lying in a far-flung colonial empire no longer exist. Among official utterances which clarify Spanish national policy in respect of its shipping is the following announcement made to the North American Newspaper Alliance in 1929 by the then head of the Spanish Government, General Primo de Rivera:

We aspire to the intensification and modernization of our merchant fleet. For this end we possess a naval shipbuilding industry the technical efficiency of which is recognized everywhere, and if this does not suffice to produce the necessary units with sufficient urgency we shall resort to the acquisition of ships abroad. At any cost we aspire to possessing lines which are direct, frequent and rapid, with ships of moderate capacity yet rapid and comfortable, which will transport our products and will be a powerful inducement for "tourism" in Spain. A network of lines served by subsidized companies will link us with Brazil, with the countries of the Plate, with the American coast of the Pacific through Panama, with New York and the Antilles, and finally with Central America. Another group of units will be engaged in traffic with our central African colonies, and an efficiently served line will maintain the powerful and vigorous Spanish tradition in the Philippines with the possibility of extending itself to China and Japan, for in those remote countries also do our national products find a reception.

FORMS OF AID UNDER CURRENT LAW

Government aid to shipping and shipbuilding in Spain had been in force before the adoption of the navigation and construction bounty law of June 14, 1909. Prior to this the postal-subsvention principle constituted the first direct aid by the Spanish Government to modern shipping. The shipbuilding industry first received protection in 1889 when both higher import duties on foreign vessels and construction bounties were made effective.

The law of 1925 differs from preceding legislation in the application of the navigation-bounty principle. The earlier provisions for navigation bounties were based upon the gross tonnage of the vessel and the mileage sailed, whereas by the new law bounties are based upon the amount of cargo carried and the distance sailed, establishing thus a working coefficient, which is increased proportionally according to the age, speed, nationality of construction, and the employment of the vessel.

In addition to this change the new law includes four general principles of Government protection within its scope—(a) import duties on foreign vessels imported into Spanish registry, (b) restriction of coastwise trade to vessels of Spanish nationality, (c) navigation bounties, and (d) construction bounties.

THE SPANISH COMMERCIAL FLEET

GROWTH OF THE MERCHANT MARINE

Due to Spain's geographic position and to its neutral status, the Spanish merchant marine experienced extraordinary activity during the World War and profited greatly in the international trade. During the postwar period, however, Spanish shipping has gradually been losing the ground gained, and the recent changes in the Government-aid program and frequent adjustment of existing laws to fit current conditions are indicative of the public desire to strengthen the position of the industry against further decline. The national tonnage of Spain has developed as shown in Table 127.

TABLE 127.—GROWTH OF THE SPANISH COMMERCIAL FLEET

July 1—	Total fleet ¹	Power-driven vessels ¹	Sailing vessels ¹	July 1—	Total fleet ¹	Power-driven vessels ¹	Sailing vessels ¹
	Gross tons	Gross tons	Gross tons		Gross tons	Gross tons	Gross tons
1895.....	654, 238	459, 945	94, 293	1926.....	1, 163, 008	1, 126, 284	36, 724
1900.....	694, 780	642, 231	52, 549	1927.....	1, 161, 369	1, 135, 725	25, 644
1905.....	731, 681	693, 265	38, 316	1928.....	1, 164, 272	1, 137, 813	26, 459
1910.....	765, 460	746, 748	18, 712	1929.....	1, 161, 591	1, 136, 326	25, 265
1915.....	899, 204	885, 755	13, 449	1930.....	1, 231, 737	1, 207, 093	24, 644
1920.....	997, 030	937, 280	59, 750	1931.....	1, 227, 370	1, 211, 817	15, 553
1925.....	1, 184, 721	1, 142, 924	41, 797				

¹ Vessels of 100 gross tons and upwards.

Source: Lloyd's Register of Shipping.

About 36 per cent of this tonnage is over 25 years old; more than 15 per cent is under 5 years old. The age groups are as follows: 73 vessels of 192,398 gross tons under 5 years old; 47 vessels of 111,528 tons 5 and under 10 years old; 220 vessels of 341,942 tons 10 and under 15 years old; 48 vessels of 73,847 tons 15 and under 20 years old; 46 vessels of 50,708 tons 20 and under 25 years old; and 337 vessels of 441,394 tons 25 years and over.

PRINCIPAL SPANISH SHIPPING COMPANIES

Because of the character of its services and the responsibilities placed upon it by the Spanish Government through contract services, the Compañía Trasatlantica has ranked as the most important Spanish shipping company. It has operated all the long-voyage subsidized services required by the Government, and its fleet now includes 14 vessels of a total gross tonnage of 96,354.

The Compañía Trasmediterranea was founded in 1916 and comprises a combination of various tramp owners which was formed for the purpose of handling the coasting traffic and the trade with the United Kingdom. The capital of the company was 100,000,000 pesetas (\$19,300,000 at pre-war par) and the consolidation included the Ferrer & Peset Freres, Compañía Valencia de Vapores, and Linea de Vapores Tintore. The Trasmediterranea owns 11 vessels of 32,321 gross tons less than 5 years old; 3 vessels of 12,903 gross tons between 5 and 10 years old; 5 vessels of 15,005 gross tons between 10 and 15 years old; 6 vessels of 13,140 gross tons between 15 and 20

years old; 7 vessels of 11,836 gross tons between 20 and 25 years old; 34 vessels of 47,865 gross tons over 25 years old; a total of 66 vessels of 133,070 gross tons.

DEVELOPMENT OF SPANISH SHIPBUILDING

As already said, current Spanish maritime legislation—that is, the law of August 21, 1925—grants, among other forms of aid, construction bounties for Spanish-built vessels. In its first year of operation the law brought construction bounties to Spanish shipbuilding companies in the amount of 7,915,773 pesetas (\$1,135,000 at average 1925 exchange). Of this total 3,168,088 pesetas (\$454,300) was earned by the principal Spanish shipbuilding company, the Sociedad Española de Construcción Naval, of Madrid, and 3,842,366 pesetas (\$551,000) by the Compañía Euskalduna of Bilbao.²

The Sociedad de Construcción Naval bears a unique relation to the Government in that it has charge of all the construction for the Spanish Navy, and is exceptional in the amount of foreign capital that was interested in its organization. It operates through several shipbuilding plants in various parts of Spain something after the plan of the American Shipbuilding Co. on the Great Lakes. Besides naval construction it builds commercial tonnage for its own or private account.

HISTORY OF SOCIEDAD DE CONSTRUCCION NAVAL

The company was organized under a contract authorized by a law of January 7, 1908.³ It was recognized that foreign technical assistance was advisable, and British and French shipbuilding firms which offered financial and technical assistance were granted the right to subscribe to 40 per cent of the capital, the limit which could be held by foreigners. On June 21, 1918, the capital was increased from 20,000,000 pesetas to 50,000,000 pesetas, of which 68 per cent was to be owned by Spanish nationals.

The British and French firms included among the founders were Vickers Sons & Maxim (Ltd.), Sheffield; John Brown & Co. (Ltd.), Sir W. G. Armstrong Whitworth & Co., and Sir John Jackson, London; and the Chantiers et Ateliers Augustin Norman of Havre, France. The Spanish founders included approximately 10 principal banks, 2 leading steel companies, several steamship companies, and more than 30 influential individuals.

As organized the company became operative on condition that it receive one or both of the proposed contracts for naval construction to be carried out for the Government at Ferrol and Cartagena. These contracts were secured by an agreement with the Government on June 16, 1909, which was extended on February 24, 1916.⁴ Under

² Report of Consul Curtis C. Jordan, Barcelona, Aug. 17, 1927.

³ The organic act of the company is published in Primera copia de la Escritura de contrata de las obras navales, civiles, e hidraulicas autorizadas por la ley de 7 de enero de 1908, Madrid, 1911. On June 21, 1918, the powers of the company were modified, as appears in Estatutos de la Sociedad Española de Construcción Naval, etc., Madrid, 1918.

⁴ Royal Order in Diario Oficial No. 80, Apr. 15, 1909. The work planned by the Spanish Government authorized by law of Jan. 7, 1908, and covered by these contracts is described in detail at pp. 88-144 in Primera copia de la Escritura de contrata de las obras navales, civiles, e hidraulicas autorizadas por la ley de 7 de enero de 1908, Madrid, 1911, and the proposals by the company at pp. 145-277. The annexes contain the technical guarantees given by the British firms for the character of the work done by their respective firms in carrying out the various branches of construction to be undertaken.

the contracts the company took over the operation of the industrial zones of the arsenals and shipyards of Ferrol and Cartagena and became the general agent of the Government for naval construction. When using these public facilities for private construction a sum equal to 5 per cent of the total value of materials and wages going into the private work was to be paid into the public treasury unless the Government decided that the work was of sufficient public benefit to warrant the remission of part or all of the amount due.

The company engaged in other engineering undertakings, such as artillery and machinery plants, and acquired dockyards and other shipbuilding plants of a private nature.

INDIRECT ASSISTANCE TO INDUSTRY

15 PER CENT PROTECTIVE MARGIN

Royal decree of April 30, 1924, and subsequent supplements provide for protection of Spanish national industries by nationalizing control and management, working personnel, and capital. Under this decree foreign capital and personnel are not excluded from national industries but they are placed under the control of Spaniards if the industry is to receive the benefits of the law. Corporations must be organized under Spanish law and not more than one-third of the directors may be foreigners and no foreigner may be chairman of the board of directors or president of the corporation. Seventy-five per cent of the capital stock must be owned by Spanish citizens, while at least 80 per cent of the office and factory staffs must be Spaniards.

Fuel installations and articles used in the protected industries must be of national production unless, for technical reasons, it is indispensable that they be procured abroad, or the difference in cost exceeds 15 per cent, or there does not exist in Spain a quantity sufficient for consumption.

The Government may exempt nationalized industries from payment of tariff duties upon materials needed in manufacturing if such materials are not available in Spain. With regard to shipbuilding, however, the law of August 21, 1925, specifically provides that shipbuilders must pay import duties on foreign materials, they receiving a bounty instead of a drawback.

The national character of industrial material and the 15 per cent protective margin places the shipowner who is obliged to build vessels under his contracts with the Government in a position where the national shipbuilding industry can not quote him prices on vessels more than 15 per cent above comparable foreign tonnage.

The 1924 decree further provides for industrial credit and loans, export subsidies for certain products, exemption from taxes upon real property, reduction in direct taxes and other flexible protective measures in favor of Spanish industries. The aids were to be in force eight years.

DUTIES ON IMPORTED SHIPS

Further protection for the Spanish shipbuilding industry is found in the import duty assessed on completed ships of foreign construction included in the law of August 21, 1925. Under article 1 of that

law vessels transferred from foreign to Spanish registry will continue to be subject to the customs duties in force at the time the change of registry is recorded. The minimum customs duties in effect under the customs law of 1927, covering foreign vessels imported into Spanish registry, were:

	Pesetas per gross ton
Power-driven iron and steel vessels:	
Cargo vessels	15
Combination cargo and passenger vessels.....	20
Passenger vessels.....	25
Sailing vessels.....	10
Wooden vessels:	
Power driven.....	20
Sail.....	18
Other classes:	
Concrete hulls.....	5
Fishing smacks and small craft.....	22
Barges and lighters.....	20
To be used for floating hulks.....	5
To be broken up.....	1

Under the original provisions of the law the basic import duties were increased by certain percentages depending upon the age of the vessel, except that new vessels purchased directly from the foreign builders will be subject only to the basic import duty. These percentages, however, could be revised by the Government in determined cases, always in the interest of the national shipbuilding industry. The percentage increases originally established were:

- 5 per cent for vessels less than 2 years old;
- 15 per cent for vessels more than 2 and less than 5 years old;
- 30 per cent for vessels more than 5 and less than 8 years old;
- 50 per cent for vessels more than 8 and less than 10 years old.

Importation of vessels more than 10 years old was forbidden. All vessels must bear highest classification in recognized classification societies.

LAUNCHINGS IN RECENT YEARS

The following table, showing launchings in Spanish shipyards for certain of the years since 1895, indicates the trend of Spanish shipbuilding and the possible effect of the provisions of the law of August 21, 1925. The figures for 1926-1929 indicate also the probable basis of the statement that the law provided for 20,000 gross tons annually.

TABLE 128.—LAUNCHINGS IN SPANISH SHIPYARDS

Year	Number of vessels	Gross tons	Year	Number of vessels	Gross tons
1895.....	1	949	1923.....	7	4,488
1900.....	2	2,572	1924.....	2	3,859
1905.....	2	2,885	1925.....	1	127
1910.....	1	3,234	1926.....	6	25,671
1915.....	5	12,765	1927.....	5	22,899
1920.....	13	45,950	1928.....	7	11,852
1921.....	11	47,256	1929.....	8	37,023
1922.....	2	7,776	1930.....	13	25,213

Source: Lloyd's Annual Summary.

POSTAL CONTRACT SERVICES

BEGINNING OF CONTRACT SYSTEM*

The first Spanish steamship line operating on a regular schedule furnished communication between the mainland and the Antilles. This line, started in 1850, was at the expense of the State. Vessels were acquired especially for the purpose, were under the command of naval officers, and for some time made periodical trips. As the results were not such as were expected, contracts were later made with different commercial houses. The service was performed, however, in an irregular way, and not until 1868 was a definite service established by a contract with A. Lopez & Co. for a subsidy of 60,500 crowns (\$30,250) for the round trip. The contract was for 10 years. Twelve vessels were required to make three monthly voyages from Spain and three others from Habana. The service was performed by the *Compañía Trasatlantica* under a cession from Lopez & Co.

To establish communication between Spain and the ports on the Gulf of Mexico through a line connecting with the above service to the Antilles, bids were invited for a steamship line between Habana and Vera Cruz, touching at Sisal, but without result, for lack of bidders, until in 1865 a contract was made for three years, renewable for two more, with Lopez & Co., for a subsidy of 10,000 crowns (\$5,000) for the round trip. Five vessels were required. This firm in the same year transferred the service to the company bearing the name, *Linea de Vapores Correos Espanoles de los Antilles y Seno Mejicano* (Line of Spanish Steamships of the Antilles and Gulf of Mexico).

A contract was made in 1875 with the firm of Herrera for the service from Habana to Porto Rico, with a subsidy of 15,000 pesetas (\$3,000) for the round trip. In 1878 another line was added, touching at the capital of the Dominican Republic, the sum of 15,000 pesetas (\$3,000) being paid for each of the round trips. From October 12, 1880, stops were made in addition at Port-au-Prince and Puerto Plata, 750 pesetas (\$150) being assigned for each.

In 1881 a contract was made with the Marquis de Campo for the service between Habana and Porto Rico, Habana and Vera Cruz, Habana and Colon, and Habana and La Guaira, for a subsidy of 42,500 pesetas (\$8,500) monthly. The contract was for 10 years; but this line lived only until December, 1883, when the contract was rescinded. The service was continued provisionally, however, by means of a special contract with the firm of Herrera, of Habana, although limited to Cuba, Porto Rico, and San Domingo, with six vessels and a subsidy of 42,500 pesos (\$8,500) for three voyages.

CONTRACT OF NOVEMBER 17, 1886

The contract with the *Compañía Trasatlantica Espanola*, which superseded all others, was a great advance in the development of steam communication between Spain and its colonies and foreign ports. The contract, approved by the Council of Ministers on

* This review of the early development of the Spanish subsidy system is based upon a report submitted by American Minister T. W. Palmer, Madrid, in United States Consular Reports Nos. 112-115, January-April, 1890, vol. 32, pp. 54-58.

November 17, 1886, ratified by the Cortes, and published on June 26, 1887, called for services as follows:

1. From Cadiz and Santander to the Antilles, 36 voyages; the vessels from Santander to connect with some ports of northern Europe, and those from Cadiz to make one stop per month in the Canaries. All trips to be extended to New York and Vera Cruz, and one each month to La Guaira, Puerto Cabello, Sabanilla, Cartagena, and Colon. On the opening of the canal at Panama, one monthly trip to Guayaquil. Monthly connections also to be made on the Pacific (using the Panama Railway) from Valparaiso to San Francisco; and on the Atlantic from New York to New Orleans, from Habana to New Orleans, from Habana to Savannah, Charleston, Georgetown, Baltimore, and Philadelphia, and from New York to Boston and Quebec. Average annual rate of speed 11.50 knots from the date of the taking effect of the contract, 12 knots from October 1, 1888, and 12.50 knots from January 1, 1893. For prolongation of the line, 10 knots an hour. Rate of subsidy, 10.18 pesetas (\$2.035) per mile. The opening of the Panama Canal to entail no further expense on the Government than the payment of tolls.

2. Thirteen round trips a year from an English port and touching at Spanish ports, to be decided upon by the Government; leaving the peninsula from the port of Barcelona for Manila via the Suez Canal, and thereby bringing Spain and the Philippines into connection with Havre, London, Antwerp, Hamburg, Marseille, Genoa, and Naples; with Karachi on the Arabian Sea and Bushire on the Persian Gulf; Zanzibar and Mozambique on the east coast of Africa; Bombay, Calcutta, Sydney, Batavia, Hong Kong, Shanghai, and Yokohama. Average annual rate of speed, 10.15 knots from the date of taking effect of the contract, 11.15 knots from June 1, 1890, and 12.50 knots from January 1, 1895. Rate of subsidy, 7.15 pesetas (\$1.43) per mile.

3. Six round trips a year from some French Mediterranean port or some port on the Bay of Biscay, touching at Spanish ports to be determined by the Government and leaving the port of Cadiz for Buenos Aires, with stops at the Canaries, Rio de Janeiro, Montevideo, and such other points as were designated by the Government. These voyages must establish connection between Cadiz and the principal ports of the Mediterranean when the port of departure is in the Bay of Biscay, and with the principal ports of the Bay of Biscay when the port of departure is in the Mediterranean. Average annual rate of speed, 11 knots. Subsidy per mile, 5.93 pesetas (\$1.085).

4. Four round trips a year from Cadiz, connecting with Barcelona, for Fernando Po, touching at Laraiche, Mazagan, Mogador, La Palmas (Canary Islands), Rio de Oro, Cape Verde, and Monrovia. Rate of speed, 8 knots. Rate of subsidy, 5.93 pesetas (\$1.085) per mile.

5. Twenty-four voyages a year between Malaga and Ceuta, Algeciras, Tangier, and Cadiz, with prolongation to Laraiche, Rabat, Mazagan, and Mogador eight times a year, thus completing, with the four voyages from Fernando Po, 12 annual voyages between these

ports and those mentioned above. In addition 104 voyages were carried on between Cadiz and Tangier and return. Average rate of speed, 8.50 knots. Rate of subsidy, 5.93 pesetas (\$1.085) per mile.

ANNUAL APPROPRIATION FOR SUBSIDIES

For meeting the subsidies required for the execution of the contract the Government was authorized to appropriate an annual maximum sum of 8,444,122 pesetas (\$1,689,044), to be distributed in the respective budgets in the following proportions: To Spain, 4,615,782 pesetas (\$923,156); to Cuba, 2,359,083 pesetas (\$471,836); to Porto Rico, 236,026 pesetas (\$67,405); to the Philippine Islands, 1,133,231 pesetas (\$226,646). The subsidy was paid the company in monthly installments.

The duty of carrying the mails was assumed by the company on its own responsibility without further pay than the general subsidy fixed by the contract for each line.

CONTRACT OF JUNE 14, 1909

As Spain recovered from the effects of the war of 1898, the general policy, as was natural, was to try to reestablish its prestige among Spanish peoples and to find in closer relations with them a substitute for the loss of oversea territories. The Spanish subsidy and navigation act of 1909 was a plain expression of that purpose. The subsidy act of 1909 was, in effect, a consolidation of the policy of maintaining communication by subsidized steamship lines between Spain and its colonies in America, Asia, and Africa which Spain had followed since 1861, and of the policy of shipbuilding and navigation bounties which Spain had adopted in 1899.

The 1909 law contained detailed stipulations for routes and services, with bounties paid on a tonnage-mileage basis. The *Compañía Trasatlantica* was the contractor.

The following summary of the special navigation-bounty and contract-service provisions of the law of 1909 is extracted from the 1916 edition of *Government Aid to Merchant Shipping*:

ROUTES WITH SPECIFIED PORTS OF CALL

Bounty rates

The special navigation bounties provided for in the law of June 14, 1909, are of two kinds, one for specified routes with specified ports of call and the other for specified routes without any requirement as to ports of call.

In regard to the special routes with specified ports of call, the requirements of the law may best be given in a tabular statement which shows the routes, the number, displacement tonnage, and speed of ships, and the bounty per mile for each service provided in the law:

TABLE 129.—CONTRACT REQUIREMENTS AND SUBSIDIES FOR ROUTES WITH SPECIFIED PORTS OF CALL

Monthly sailings to—	Vessels				Annual bounty			
	Num-ber	Displace-ment, tons	Speed		Total		Per mile	
			First three years, knots	Balance con-tract, knots	Pesetas	Equiva-lent in United States cur-rency ¹	Pese-tas	Equiva-lent in United States cur-rency ¹
1. Habana and Vera Cruz ² -----	5	{ 9,000 7,500 6,000	13.5	15.0	1,459,093	\$281,605	11.97	\$2.31
2. Cadiz, New York, Habana, and Vera Cruz ³ -----	6	{ 9,000 6,000	12.5	13.0	1,423,363	274,709	9.90	1.91
3. Cadiz, Canaries, Montevideo, and Buenos Aires ⁴ -----	5	{ 9,000 7,500	13.5	15.0	1,736,440	335,133	11.97	2.31
4. Cadiz, Canaries, Habana, Colon, and return via Porto Rico ⁵ -----	6	{ 9,000 6,000	12.5	13.0	1,559,083	300,903	9.90	1.91
5. Port Said, Suez, Singapore, and Manila ⁶ -----	5	4,500	12.5	12.5	2,593,203	500,488	8.80	1.70
6. Cadiz, Moroccan ports, Canaries, Rio de Oro, Sierra Leone, Monrovia, Santa Isabel, and San Carlos ⁶ -----	3	{ 4,000 2,400	10.0	12.0	856,425	165,290	6.17	1.19

¹ Converted at the pre-war par rate of \$0.193.

² From any port on the north coast of Spain.

³ Average.

⁴ Minimum.

⁵ From any port on the east coast of Spain.

⁶ From one eastern and one northern Spanish port.

The law provided also for the maintenance of connecting services between Habana and New Orleans; between Habana, Savannah, Charleston, Georgetown, Baltimore, and Philadelphia; and between New York, Boston, Quebec, and Montreal. All of these auxiliary services were to be operated in conjunction with principal route designated No. 2 in the above table, and were to receive a bounty of 0.66 peseta (\$0.127) per mile. The same rate of payment was authorized for the maintenance, in connection with principal route No. 3, of a branch line between Buenos Aires, Punta Arenas, Coronel, and Valparaiso, and, in connection with principal route No. 5, the following branch lines: (1) Liverpool, Christiania, Copenhagen, Malmö, Libau, Riga, Stockholm, Helsingfors, and St. Petersburg (now Leningrad); (2) Port Said or Aden and Sydney; (3) Aden or Colombo and Karachi, Bombay, Bushire; (4) Colombo and Calcutta; (5) Aden or Colombo and Zanzibar and Mozambique; (6) Mozambique and Cape Town.

The Compañía Trasatlántica operates all of the subsidized lines enumerated in the above table except the line to Africa, which is operated by La Roda Hermanos. Other services receiving the special navigation bounties provided for by the law of June 14, 1909, are as follows:

Canary Islands: Sailings every three days between Spain and the islands and weekly between the islands and Rio de Oro; the former service is performed by the Industria y Navegación Line and the latter by the Vapores Correos Interinsulares de Canarias.

Balearic Islands: Six sailings weekly between Barcelona and Palma and three weekly between the several islands; two of the voyages each week between Barcelona and Palma must be run at a minimum speed of 15 knots; service performed by La Islena Maritima.

Spanish African possessions and Morocco: Regular services from Almeria, Malaga, Cartagena, Alicante, and Algeciras; service by La Roda Hermanos.

Other contract provisions

In addition to the conditions specified in the above tabular statement, ships receiving the special navigation bounties provided under this law must comply with the following requirements:

1. Ships must be owned by Spanish citizens and operated under the Spanish flag.

2. Ships must have first-class rating of an approved classification society.
 3. Two-thirds of the vessels for the replacement of those on subsidized service and of additional vessels therefor must be new, with preference to Spanish-built ships if cost is not more than 10 per cent above that of fore-ign-built ships.
 4. Repairs must be made in Spanish yards.
 5. Provisioning of vessels shall be made, by way of preference, in Spain and with Spanish products.
 6. Spanish coal shall be preferred to extent of at least two-thirds of bunker capacity in the case of ships leaving Spanish ports.
 7. Crew under normal conditions shall be Spanish subjects.
- Ships engaged in these special services must grant the following advantages to the Spanish Government :

- (1) Free transportation of Spanish mail, State funds, and bullion for coinage;
- (2) Carriage of Government freight and passengers at reduced rates;
- (3) Assignment of ships to the Government in time of war for use as auxiliary cruisers.

The law of June 14, 1909, imposed a number of conditions regarding passenger and freight rates and service, which may best be presented in the following form:

I. Passenger rates:

1. Rates to and from Spain to be no higher than those charged by foreign lines;
2. Ships in emigrant trade to be on a parity with foreign ships in accommodation;
3. Emigrant ships to give special facilities for transportation of emigrants to Spanish colonies in Morocco and elsewhere in Africa;
4. Thirty per cent reduction to be made in fares to commercial agents and to official commissioners sent abroad to attend expositions;
5. Ten free passages to America to be granted to persons designated by the Minister of Public Instruction and sent on work in the national interest.

II. Freight rates and service:

1. Spanish merchandise to be given preference over foreign merchandise;
2. Freight tariffs to be approved by the Government;
3. Cooperation among subsidized lines enjoined;
4. Exhibits for commercial museums and exhibitions abroad to be carried free.

ROUTES WITHOUT SPECIFIED PORTS OF CALL

Details as to the navigation bounties granted to lines operating on specified routes without any requirement as to ports of call are given in the following statement:

TABLE 130.—CONTRACT REQUIREMENTS AND SUBSIDIES FOR ROUTES WITHOUT SPECIFIED PORTS OF CALL

Routes	Number of trips per year	Minimum speed		Bounty per gross ton per 1,000 miles	
		Yearly average, knots	On trial, knots	Pesetas	Equivalent in United States currency ¹
Group I: To Brazil, Uruguay, and Argentina and return, calling at the Canaries ²	12	10	11	0.60	\$0.116
Group II:					
To the Adriatic and return ³	12	11	12	.80	.154
To the Black Sea and Sea of Azov and return ⁴ ...	12	11	12	.80	.154
To Algeria and return ⁵	52 or 104	11	12	.80	.154
To Argentina or from Argentina ⁶	52	11	12	.80	.154
Group III: To New York and Habana and return ⁶ ..	12	13	14	1.00	.193

¹ Converted at the pre-war par rate of \$0.193.

² One route starting from a port in the north or northeast of Spain and another from a port in the east or south of Spain.

³ From a port in the south or east of Spain.

⁴ From a port in the east of Spain.

⁵ From a port in the south of Spain.

⁶ From a port in the north or northeast of Spain.

The law permits the Government to substitute one or more routes of "equal importance" or of "greater national utility" for any of the above-described routes. It also provides that the bounty shall be increased 20 per cent for lines in Groups II and III upon proof that the lines have operated at an average speed equal to that required of the next higher group, and also for those in Group I if they exceed 14 knots. In the distribution of these bounties vessels of Spanish construction are preferred over foreign-built ships, and the vessels longer in service over those more recently commissioned.

The conditions imposed upon vessels applying for this form of special navigation bounty are the same as for vessels seeking the general navigation bounty except in the requirement as to proportion of freight to be carried. The special-bounty lines in existence more than two years are required to carry, on the average, cargo and passengers to the extent of at least 40 per cent of the vessel's maximum capacity on the outbound voyages and at least 33 per cent on the homeward voyages. For new lines or those in existence less than two years the proportions required are, respectively, 30 per cent and 25 per cent.

SUSPENSION OF BOUNTIES

After the outbreak of the war in Europe many of the subsidized lines renounced their right to the bounties. The New York Journal of Commerce, in its issue of December 24, 1915, made the following statement regarding this action:

As a consequence of the strong position in which the Spanish lines now find themselves, the special correspondent of the Liverpool Journal of Commerce wires that as a result of the heavy subsidy payments already received, as well as the fortunate position in which neutral Spanish shipping is at present situated, growing out of war conditions, the Bilbao Shipowners Association has informed the Government that the 23 companies comprising its membership have decided to renounce their right to receive premiums under the law of 1909. It is further stated that the Spanish Government has readily accepted the decision of the Bilbao shipowners and has approached the shipowners at other ports in Spain with an inquiry as to whether they can not follow the example.

The relinquishment of the right to the bounties may be accounted for by the great earning power of Spanish ships during the period of high freight rates and by the desire to be released from the restrictions that go with the bounties.

The general navigation bounties of the law of June 14, 1909, were suspended by royal decree on January 30, 1916, as indicated by the following report of the United States consul general at Barcelona.⁶

Abolition of the Government navigation subsidies took place by royal decree promulgated on January 30, 1916, suspending temporarily the shipping aid provided in the law of June 14, 1909.

Under that law Spanish shipping companies could claim a national subsidy by means of a navigation tax. Before the law was enacted 80 per cent of the country's exports went out under foreign flags, but during the last five years this has been reduced to between 52 and 53 per cent. Furthermore, owing to the European conflict, circumstances have altered so that the merchant marine of Spain is to-day in a doubly flourishing condition.

In recognition of this state of affairs many shipping companies voluntarily relinquished their right to the subsidy, thinking it unjust to accept from the public treasury aid which they did not require. Several other companies refused, for various reasons, to forego the privilege created in their favor, chiefly owing to contracts entered into before the war which prevented their profiting fully by the general rise in freights. It was claimed, however, that in one way or another all shipping under the Spanish flag had benefited, and it was therefore considered unnecessary to continue to render State aid for the present.

⁶ Commerce Reports, U. S. Department of Commerce, Mar. 23, 1916.

RENEWAL OF 1922

The contract with the Compañía Trasatlántica under the act of 1909 and regulations under the act of 1913 was to have expired on January 1, 1921, but it was in part suspended during the war and during the period of large profits. General depression, however, began early in 1921, and Spanish shipping, with that of other nations, suffered heavy losses.

The subsidies to the Compañía Trasatlántica were accordingly revived by royal decree of February 14, 1922, and made retroactive as from January 1, 1921. The decree took the form of an increase to 28.66 pesetas in the mileage rates of the main subsidies, which had been respectively 11.97, 9.92, and 8.82 pesetas. The increase was based on the great increase in the cost of operating ships over pre-war costs and Spain's need during the reconstruction period to retain the advantages its neutrality during the war had given; doubtless the decrease of about one-fourth in the exchange value of the peseta was also considered.

Beginning with 1921 the contracts were made for 2-year periods until the entire system was revised in 1925.

CONTRACT OF DECEMBER 10, 1920

In 1920 the Spanish Government concluded an agreement with the Compañía Trasmediterranea for mixed postal services for 10 years to the Canary and Balearic Islands and to Morocco. The contract provided for six lines of services as follows:

1. Barcelona and Valencia to Canary Islands;
2. Seville and Cadiz to Canary Islands;
3. Cadiz to Tangier and Algeciras;
4. Malaga to Melilla;
5. Barcelona to Balearic Islands;
6. Almeria to Melilla.

The subsidy for these services was fixed at 10,039,040 pesetas (\$1,600,000 at 1920 average exchange), divided between three general divisions as follows: To the Canary Islands, 1,454,208 pesetas; to the Balearic Islands, 4,064,832 pesetas; to the Morocco colonies, 4,520,000 pesetas.

This agreement became effective on January 1, 1921. On January 3, 1922, a new interisland service was established in the Canary Islands with an additional annual subsidy of 1,903,374 pesetas (\$294,600 at 1922 exchange), thus making a total of 11,942,414 pesetas for the entire service performed by this company. For 1928, these amounts were increased in the budget estimates to 11,279,177 pesetas for the three main groups and to 2,943,600 pesetas for the Canary Islands interisland services, a total of 14,222,777 pesetas, or \$2,360,000 at \$0.1659 to the peseta, the average rate for 1928.

By royal order issued on February 1, 1931, it was announced that the contract for services between Spain and the Balearic Islands, North Africa, the Canary Islands and interisland traffic, and Fernando Po had again been awarded to the Compañía Trasmediterranea, the service to be inaugurated February 11, 1931. No details have been received.

TRASATLÁNTICA CONTRACT OF AUGUST 21, 1925

The most important contract services in the Spanish system were those provided under an agreement with the Compañía Trasatlántica in 1925. The contract was entered into for a period of 25 years, effective from July 1, 1925, to December 31, 1950.

The annual subsidy for the services was fixed at 28,305,177 pesetas (\$4,058,962 at 1925 exchange), and that amount may not be exceeded unless additional lines are established.

VESSEL RENEWAL PROGRAM

The contracting company agreed to maintain 20 vessels in condition for service on the prescribed routes and to renew 16 vessels during the life of the contract in addition to any others which might be constructed during the contract period. Of these, two vessels were required to be built especially for a new line between northern Spain and South America; three 7,500-ton vessels were to be ready for the Panama Canal and Pacific lines and for the New York-Cuba-Mexico line by 1929, and three similar vessels for the same group of services by 1932. Two 5,000-ton vessels were to be furnished by 1934 for the Fernando Po line, and three vessels of 7,000 to 8,000 gross tons were to be constructed or acquired for the Philippine line by 1936. Two 15,000-ton vessels were to be constructed for the Barcelona-Buenos Aires service by 1938. New vessels must be built in Spain except where the construction cost differential is greater than the 15 per cent margin which the law of April 30, 1924, for the protection of national industry, allows for shipbuilders. (See p. 532.) The Government must in all cases pass upon the vessels and whether or not they shall be built abroad.

FINANCIAL ARRANGEMENTS

The company was authorized to float loans guaranteed by the Government for the purpose of constructing vessels, the Government taking a mortgage on the vessel and reserving from the subsidy the amounts sufficient to cover the liability of the Government.

An annual insurance premium of 3 per cent of the value of each vessel was to be written off, and a 4 per cent depreciation was allowed, while a further 3 per cent reserve fund was to be written off on the basis of the value of ship and equipment.

If the annual fixed subsidy was not sufficient to meet operating deficits, the company was authorized to borrow funds with which to reimburse itself for such losses. The interest and amortization of these loans was to be guaranteed by the State under the same conditions as the loans for construction. The total guaranties were not to exceed the total annual subvention.

Annual dividends were not to exceed 6 per cent so long as deficits in operating expenses existed, and any earnings above 6 per cent were to be used for the amortization of past deficits. Eighty per cent of the earnings of the company was to be used to reduce the subsidy until it became half the authorized amount. The remaining 20 per cent was to accrue to the company, and dividends were to be increased to 10 per cent. In case a new line was authorized the rate of payment was to be 28.66 pesetas (\$4.11) per mile.

A special loan to cover the loss for 1923 (15,589,255 pesetas) was authorized.

ABROGATION OF THE 1925 CONTRACT

While the working agreement of 1925 would have resulted in a different status for the company had the earnings been greater and the costs less, the losses were so heavy that the company plunged deeper into indebtedness to the Government. In its annual report for the year ending December 31, 1928 (published in the *Gaceta de Madrid* of January 5, 1930), the *Trasatlantica* lists among its liabilities bond issues and securities amounting to more than 250,000,000 pesetas (\$41,500,000 at 1928 average exchange), exclusive of capital and credit accounts amounting to 100,000,000 pesetas (\$16,590,000). Assets of 112,800,000 pesetas (\$18,700,000) in the form of special securities guaranteed by the Government are set up against these liabilities, plus debit accounts and vessel and harbor equipment. The vessel equipment is carried at a book value of 168,345,307 pesetas (\$27,900,000), in addition to payments of 62,929,366 pesetas (\$10,400,000) disbursed on account of construction of the *Juan Sebastian Elcano*, *Marques de Comillas*, and *Magallanes*.

In 1927 a commission was named to prepare a detailed study of the economic situation of the company and the causes of the unsatisfactory financial condition. This commission recommended a complete change of service requirements.

The Government accordingly canceled the contract by royal decree of October 21, 1929 (published in the *Gaceta de Madrid* of October 23, 1929). The cancellation article reads in part; "Effective from the date of this royal decree, the contract for transoceanic services concluded with the *Compañia Trasatlantica* in 1925 is hereby rescinded, it being continued, however, under provisional conditions until the adjudication of new bids."

In the report preceding the decree the position of the Government is defined. Among other reasons for the action on the part of the Government the report cites the high national interest of the transoceanic service and the difficult financial position of the *Trasatlantica Co.*, despite the contract conditions under which it has operated since 1925 and the great costs which weigh on the State in maintaining these services, and points out that in the proposed reorganization of the services the Government will know definitely the amount in which it may participate in the costs of the operations.

NEW BASIS FOR CONTRACTS

On December 28, 1929, a royal order was signed (and published in the *Gaceta de Madrid* the next day) which outlined the broad basis on which future contract services should rest.

The required services for which tenders will be accepted fall into three groups:

First group: Cantabrian coast to Cuba and New York; Barcelona to Argentina; Mediterranean to Cuba and New York; Mediterranean to Porto Rico and New York.

Second group: Services to the Philippines and Pacific, consisting of freight and low-class passenger service.

Third group: Coastal services, to which the present services to Fernando Po, now operated by the *Trasatlantica*, are to be added, including the intercolonial services between the islands and territories of the Gulf of Guinea.

Further coastal services will be established when the current contract expires and the interisland services of the Canaries will not be included.

CONDITIONS FOR TENDERS

Group I conditions

Bidders will consider the following general conditions in bidding on the first group:*

(a) The State will furnish the following eight vessels of the *Compañía Trasatlantica*, which are to become State property: *Alfonso XIII*, of 10,550 gross tons, built 1923; *Cristobal Colon*, 10,800 gross tons, built 1923; *Infanta Isabel de Borbon*, 10,348 gross tons, built 1913; *Juan Sebastian Elcano*, 9,964 gross tons, built 1928; *Magalanes*, 9,600 gross tons, built 1928; *Manuel Arnus*, 7,578 gross tons, built 1923; *Marques de Comillas*, 9,922 gross tons built 1928; *Reina Victoria Eugenia*, 10,137 gross tons, built 1913. Other vessels will be furnished if essential, and new vessels will be provided if all other plans for renewal of the fleets are found impracticable.

(b) The contractor will provide the capital.

(c) Operating expenses will include insurance and depreciation charges on the Government vessels as well as interest charges up to 5½ per cent on these vessels.

(d) The contractor will receive a subsidy in the form of a commission of 3 per cent of the gross income from passenger and cargo traffic, and interest on his capital investment. Commission and interest, however, are limited to an aggregate of 9 per cent of the paid-up capital which is supplied by the contractor, plus a sum necessary to establish a 1 per cent reserve fund.

(e) Subsidies received are to be entered as revenues for accounting purposes, and the annual subsidy shall not exceed the 28,000,000 peseta annual amount provided through the 1925 contract. The Government will specify the subsidy for each service.

(f) If the operations show net profits, the State will be paid interest and amortization charges on the Government capital invested in the vessels. Profits in excess of this will be divided 25 per cent to the contractor and 75 per cent to the State. For this service group the *Compañía Trasatlantica* will be given preference in bidding in case of equal bids for the service.

Group II conditions

In the Group II service the contractor will have no rights except that of receiving a direct subsidy, which shall not exceed the annual sum of 28,805,177 pesetas (the entire budget allowance). The *Trasatlantica* shall have preference in this group also if equal bids are received.

* Report of Trade Commissioner Julian C. Greenup, Madrid, Jan. 14, 1930.

Group III conditions

In the coastal services characteristics of vessels and itineraries and rates will be determined and fixed.

Other conditions

Bids will be entertained for combining the Mediterranean services to Argentina, Cuba, Porto Rico, and New York, the bidder undertaking to endeavor to acquire some of the vessels now belonging to the *Compañia Trasatlantica*.

Consolidated bids for all service groups will be entertained based upon the requirements for individual services, but a consolidated bid will not have preference as such. In case of an award to a consolidated bidder the above preference clauses to the present operators do not apply.

Further conditions for consideration by the State in making awards will be the importance of the equipment which the bidder offers to supply, acquire, or construct; the financial advantages that may accrue to the State from the proposals; the financial risk offered by the bidder in terms of reserve funds, interest, and amortization; the amount of subsidy solicited. Service improvements and rates also will be considered.

The bidders must be steamship companies of Spanish nationality and Spanish ownership with shares nontransferable to foreigners. Proposed vessels for coastal services must be of Spanish construction, and exceptions provided by the law of June 14, 1909, are repealed.

LIFE OF THE CONTRACT

The duration of the proposed contract is for 20 years or for the unexpired contract period provided for under the stipulations of the 1925 contract.

No change may be made in the contract for two years after it is signed unless there is a change in vessel or service which influences the financial results. If the subsidy is found insufficient to cover the authorized provisions, the contractor will pay the difference, in which case he shall have the right to recover such losses from subsequent profits.⁸

NAVIGATION BOUNTIES

LAW OF JUNE 14, 1909

No direct navigation bounties were paid to Spanish shipping prior to the passage of the law of June 14, 1909, and that law provided for both navigation and construction bounties. The navigation bounty system was divided into "general" bounties and "special" bounties that required the bounty-earning vessels to remain in a line service with or without specific ports of call. This

⁸ On May 23, 1930, Consul Curtis C. Jordan, Barcelona, reported that the date for the opening of public tenders for taking over the services performed by the *Compañia Trasatlantica*, which was set for February, 1930, had been indefinitely postponed by the new Government.

special system was a contract system of services based upon frequency of sailings and distance and has already been considered under "postal-contract services."

By the provisions of the law of June 14, 1909, "general" navigation bounties were authorized to Spanish vessels engaged in overseas or long coasting trades at 40 centimos (\$0.0772) per gross ton per 1,000 miles for the overseas trade and 50 centimos (\$0.0965) per gross ton per 1,000 miles in the long coasting services between Spanish ports and ports of the rest of Europe and the Mediterranean coast of Africa. Thus, a vessel of 4,000 gross tons could earn \$0.30 per mile in the overseas trades and \$0.38 per mile in the long coasting trades. The law limited the total amount of bounties payable during any one year to 2,900,000 pesetas (\$559,700 at pre-war par).

LAW OF AUGUST 21, 1925

The comprehensive law under which postwar aid was extended to the Spanish merchant marine was the royal decree law of August 21, 1925, published in the *Gaceta de Madrid* of August 25, 1925. The provisional regulations covering the execution of the law were approved on September 6, 1925, and published on September 10, 1925. The documents contain more than 100 articles.

Article 24 of the law provides that it shall remain in force at least 10 years; but under articles 72 to 75 of the regulations a revising commission is created which will advise the Government on the revision of import duties, navigation-bounty coefficients, and distance and tonnage tables covered by the law. Navigation and construction bounty rates are subject to semiannual review.

REQUIREMENTS OF 1925 LAW

Power-driven vessels not engaged in the coasting trade or in a subsidized service are eligible for navigation bounties under certain conditions. These are:

Vessels must be of highest classification in national or other designated classification societies.

Under normal navigating conditions the crew must all be of Spanish nationality.

The shipowner must contribute 4 per cent of the subsidy to national pension funds or other benevolent funds established by the Government for seamen.

The vessel must carry cadets, one for a 2,500-gross-ton vessel, two (one for deck duty and one for engine room duty) on vessels from 2,500 to 4,000 gross tons, and three for vessels over 4,000 gross tons.

Mails, except parcel-post and packages of declared value, must be carried free of charge. The carriage of mails, however, in no manner is to interfere with the regular itinerary of the vessel, provided that in case of deviation the mail shall be delivered to Spanish authorities at the first port of call. (Art. 40, regulations.) The vessels must be of Spanish ownership.

CALCULATION OF SUBSIDIES

The navigation bounty is calculated according to the following formula:

$$\frac{\text{Total cargo tons} \times \text{mileage traveled}}{100} \quad \text{subsidy coefficient} = \text{amount in pesetas earned.}$$

Special reports, log books, visas, and certificates are used in the compilation of cargo ton-mileage. The coefficients are fixed according to gross tonnage and mileage as given in Table 131.

TABLE 131.—SUBSIDY COEFFICIENT TABLE EMPLOYED IN CALCULATING NAVIGATION BOUNTIES UNDER LAW OF AUGUST 21, 1925

Mileage	Gross register tons and coefficients						
	Up to 199	200 to 399	400 to 599	600 to 799	800 to 999	1,000 to 1,199	1,200 to 1,399
Up to 199.....	0.100	0.147	0.197	0.219	0.2439		
From 200 to 299.....	.066	.086	.111	.122	.1341		
From 300 to 399.....	.047	.058	.075	.082	.0902		
From 400 to 499.....	.042	.050	.062	.067	.0738	0.0800	0.0850
From 500 to 599.....	.036	.040	.050	.054	.0596	.0630	.0675
From 600 to 799.....					.0338	.0370	.0418
From 800 to 999.....					.0438	.0475	.0505
From 1,000 to 1,199.....					.0379	.0410	.0433
From 1,200 to 1,399.....					.0340	.0365	.0383
From 1,400 to 1,599.....					.0313	.0335	.0353
From 1,600 to 1,799.....					.0293	.0310	.0325
From 1,800 to 1,999.....					.0277	.0295	.0307
From 2,000 to 2,199.....					.0255	.0280	.0293
From 2,200 to 2,399.....					.0246	.0270	.0280
From 2,400 to 2,599.....					.0239	.0260	.0270
From 2,600 to 2,799.....					.0234	.0250	.0260
From 2,800 to 2,999.....					.0229	.0245	.0250
From 3,000 to 3,499.....					.0226	.0240	.0248

Mileage	Gross register tons and coefficients					
	1,400 to 1,649	Additional coefficient for each 250 tons or fraction up to 2,399	2,400 to 2,699	Additional coefficient for each 300 tons or fraction up to 4,499	4,500 to 4,799	Additional coefficient for every further 300 tons or fraction
From 400 to 499.....	0.0900	0.00925	0.1270	0.007600	0.1800	
From 500 to 599.....	.0720	.00700	.1000	.006600	.1460	
From 600 to 799.....	.0665	.00610	.0910	.005150	.1370	0.00450
From 800 to 799.....	.0535	.00450	.0715	.003830	.0990	.00323
From 800 to 999.....	.0455	.00362	.0600	.003430	.0770	.00323
From 1,000 to 1,199.....	.0405	.00275	.0515	.002150	.0665	.00261
From 1,200 to 1,399.....	.0370	.00150	.0430	.002300	.0590	.00230
From 1,600 to 1,799.....	.0340	.00138	.0395	.002000	.0535	.00200
From 1,800 to 1,999.....	.0320	.00125	.0370	.001720	.0490	.00180
From 2,000 to 2,199.....	.0305	.00113	.0350	.001530	.0457	.00160
From 2,200 to 2,399.....	.0290	.00100	.0330	.001430	.0430	.00130
From 2,400 to 2,599.....	.0280	.00090	.0315	.001300	.0405	.00123
From 2,600 to 2,799.....	.0270	.00090	.0305	.001400	.0385	.00111
From 2,800 to 2,999.....	.0260	.00090	.0295	.001400	.0375	.00105
From 3,000 to 3,499.....	.0255	.00080	.0285	.001090	.0360	.00090
From 3,500 to 3,999.....			.0265	.000858	.0325	.00061
From 4,000 to 4,499.....			.0255	.000715	.0305	.00055
From 4,500 to 4,999.....			.0245	.000500	.0280	.00055
From 5,000 to 5,499.....			.0235	.000490	.0265	.00050
From 5,500 to 5,999.....			.0230	.000400	.0257	.00042
From 6,000 to 6,499.....			.0225	.000315	.0247	.00042
From 6,500 to 6,999.....			.0220	.000300	.0240	.00030
From 7,000 and over.....			.0215	.000244	.0232	.00030

Increase of navigation bounties.—The results obtained from calculations of bounties according to this table may be augmented up to 75 per cent of the basic bounty under certain conditions, the following additional amounts being allowed:

	Per cent
For national construction of hull and machinery.....	40
For national construction of hull only.....	20
For vessels regularly engaged in Spanish foreign trade.....	25
For vessels irregularly engaged in foreign trade.....	15
For vessels less than 4 years old.....	10
For vessels less than 8 years old.....	5
For speed from 12 to 15 knots.....	5
For speed from 15 to 18 knots.....	10
For speed 18 knots and over.....	15

Reduction of coefficient.—Beginning with the sixth year of effectiveness of the law (1930) the then effective bounty coefficients will be reduced at the following progressive rates:

	Per cent
For vessels 8 years old but less than 16 years old.....	5
For vessels 16 years old and less than 24 years old.....	10
For vessels 24 years old and less than 28 years old.....	15
For vessels 28 years old but less than 32 years old.....	20
For vessels 32 years old but less than 36 years old.....	50

Vessels 36 years old will not be entitled to bounties after the first five years of effectiveness of the law.

The foregoing reductions will be waived to vessels whose owners contract for the construction of similar vessels subject to the approval of the Director General of Navigation.

Cargo calculations.—For the calculation of cargo tons the tables published for the law of June 14, 1909, will be used, and official French distance tables. Passenger space is calculated at 4 measurement tons for each passenger, regardless of class; hold space for large live animals at 2 tons, and for small animals at half a ton each.

EXAMPLE OF APPLICATION OF THE LAW

As an example of the effect of the navigation bounty system under the law of August 21, 1925, the British shipping journal, *Fairplay*, compiled the results of a typical voyage of an eligible vessel. A Spanish vessel of 2,699 gross tons carrying coal from Cardiff to Barcelona and returning with a cargo of iron ore from Cartagena to Middlesborough was chosen. The distance from Cardiff to Barcelona, 1,652 miles, multiplied by the coal-cargo weight, 3,400 tons, divided by 100, as per the formula, and multiplied by the governing bounty coefficient, 0.0395, results in a sum of 2,218 pesetas. The return voyage from Cartagena to Middlesborough is 1,720 miles, and the ore cargo amounted to 3,700, the bounty coefficient remaining the same, the vessel earned 2,514 pesetas on the return voyage, or 4,732 pesetas (\$678 at 1925 average exchange or \$552 at the 1930 average rate) for the round voyage as the basic bounty.

Under the provisions of section 7 of the law the vessel was entitled to the following extra bounties: 15 per cent for being irregularly employed in foreign trade, 40 per cent for being of Spanish construction, and 10 per cent for being less than 4 years old, a total augmentation of 65 per cent of the basic bounty, or 3,075 pesetas, with

the result that the vessel earned for the voyage a total navigation bounty exceeding 7,800 pesetas, equivalent at 1925 average exchange to \$1.118 or at the 1930 average rate to \$910.

LIMIT OF NAVIGATION-BOUNTY EXPENDITURES

Article 12 of the law limits the budget appropriation for navigation bounties to 10,000,000 pesetas (\$1,434,000 at average rate for 1925; \$1,167,000 at average rate for 1930). Any surplus will not be cumulative for the following year. If the earned bounties exceed the budget allowances a pro-rata apportionment, based upon the amount earned, will be effected.

CONSTRUCTION BOUNTIES

LAWS OF 1889 AND 1909

Twice, prior to 1925, Spain enacted laws intended to encourage shipbuilding. The first instance was the tariff law of 1889, amended by the budget law of June 30, 1892, and the second step was taken with the general bounty law of June 14, 1909. Spanish ore outputs are large, and this, plus native coal, places the country in a different position in respect of its steel-ship construction from that occupied by some other European nations.

The provisions of the laws of 1889 and 1909 are stated in Table 132.

TABLE 132.—CONSTRUCTION-BOUNTY RATES UNDER LAWS OF 1889 AND 1909

Kind of vessel	Bounty per gross ton			
	Law of 1889		Law of June 14, 1909	
	Pesetas	Equiva- lent in United States currency ¹	Pesetas	Equiva- lent in United States currency ¹
Wooden vessels.....	40	\$7.72		
Hulls only.....			80	\$15.44
With auxiliary power.....			100	19.30
Iron, steel, or composite vessels:				
Hulls only.....			120	23.16
Sail.....	55	10.62		
Full-powered cargo vessels.....			160	30.68
Combination passenger-and-cargo vessels.....			170	32.81
Passenger vessels.....	75	14.48	185	35.71

¹ Converted at the pre-war par rate of \$0.193.

LAW OF AUGUST 21, 1925

All of these bounties were materially increased by article 14 of the law of August 21, 1925—which, as already explained, granted construction compensation as well as navigation subsidies—as follows:

TABLE 133.—CONSTRUCTION-BOUNTY RATES UNDER LAW OF 1925

Kind of vessel	Bounty per gross ton	
	Pesetas	Equivalent in United States currency ¹
Wooden vessels:		
Hulls only.....	118	\$16.92
With auxiliary power.....	130	18.64
Iron, steel, or composite vessels:		
Hulls only.....	176	25.24
Hulls with auxiliary machinery.....	200	28.68
Full-powered cargo vessels.....	235	33.70
Combination passenger-and-cargo vessels.....	398	57.07
Passenger vessels.....	407	58.36

¹ Converted at \$0.1434, the average rate for 1925.

This scale is considered as basic and may be increased by 10 per cent for each full knot of speed that the vessel may develop in excess of 16 knots, on a trial run, half loaded.

No drawback or allowance is granted Spanish shipbuilders for import duties paid on foreign materials for construction, repair, and betterment of vessels.

REQUIREMENTS OF 1925 LAW

To be eligible for the bounties the shipbuilder must prove that the vessel is of national construction; that the Government has approved it for the service for which it is designed; that not more than 20 per cent of the directive, technical, and labor personnel of the building yard is of foreign nationality during the first five years, nor more than 10 per cent during the next five years, and all Spanish thereafter; that 2 per cent of the bounty is paid to benevolent institutions for shipbuilding personnel as approved by the State; that one student from special nautical or naval schools is employed for each 150 workmen employed by the plant.

Vessels of less than 100 gross tons are not entitled to construction bounties.

Vessels receiving bounties may not be sold to foreign registry or transferred to foreign registry during the first two years of their service except under special authorization based upon a progressive scale of reimbursement of bounties earned based upon the age of the vessel.

LIMIT OF CONSTRUCTION-BOUNTY EXPENDITURES

The maximum annual appropriation for construction bounties is fixed at 8,000,000 pesetas (\$1,147,200 at 1925 average exchange), and if the bounties earned exceed this amount the total available appropriation is prorated among those entitled to its benefits.

On November 20, 1929, the Council of Ministers examined a proposal to increase the construction-bounty estimates.⁹ It appears

⁹ Reports of Sheldon Whitehouse, chargé d'affaires ad interim, Madrid, Nov. 25, 1929, and Trade Commissioner Julian C. Greenup, Madrid, Nov. 29, 1929.

that the original limit (8,000,000 pesetas) provided for the construction of only 20,000 gross tons annually, which would result in a gross expenditure of \$57 per ton (at 1925 average exchange). It was proposed to increase the construction-bounty expenditures to cover 50,000 gross tons of new construction annually, and to this end it was proposed to expend 22,000,000 pesetas annually, which would mean a gross State expenditure of \$64 (at 1929 exchange) for each ton built under the construction bounty law. It was proposed to raise the extra funds required for this object by a small tax on merchandise loaded and discharged and passengers embarking and debarking in Spanish ports. A commission to review the situation and make recommendations would be formed, it was stated.

According to the Gaceta de Madrid, the Government of Spain expended 14,915,759 pesetas (\$1,740,669) in construction bounties during 1930. The bounties were distributed to 2 builders in Madrid, 6 in Bilbao, 4 in Vigo, 1 in Coruna, 1 in Santander, and 1 in Gijon. The principal item, 9,091,388 pesetas (\$1,060,965), went to the *Compañía Euskalduna de Construcción y Reparación de Boques*, Bilbao, in the construction of 7 vessels. Two vessels of 2,522 gross tons received 529,647 pesetas each, or 210 pesetas (\$24.50) per gross ton; 2 vessels of 6,632 gross tons received 2,639,368 pesetas each, or 398 pesetas (\$46.45) per gross ton; 2 vessels of 2,955 gross tons received 1,175,926 pesetas each, or 398 pesetas (\$46.45) per gross ton; and 1 vessel of 2,440 gross tons received 401,502 pesetas, or 164 pesetas (\$19.15) per gross ton.

COAL TRANSPORT BOUNTIES

Coal transportation bounties, referred to on page 554, came into practice under the provisions of article 18 of the law of June 14, 1909, which reads:

In order to give greater efficacy to the navigation bounties and the subsidies to regular lines, the Government shall favor reduced rates of transportation by the railroads for articles of national production destined for exportation. It shall encourage, furthermore, by every means in its power, concerted action between the railroad companies and the national navigation companies * * * with the object of establishing regular and efficacious transportation by land and sea, with special reduced freight rates, and facilitating transportation to the coast and the direct exportation by Spanish ships of the principal articles of national production, more especially of coal.

To this end the Government shall present to the Cortes, within one year, a special project of law; meantime the exportation or distribution by the maritime route of national coal shall receive a premium of 0.30 peseta, which is provisionally approved.

A bonus of 5 pesetas per ton was authorized in December, 1921, for the carrying of Spanish coal and was extended by royal decree of October 18, 1922, to coal carried by rail from Oviedo to Santander, and this coal was also exempt from transportation tax.

For these bonuses were finally substituted, in March, 1923, two classes of bonuses to the coal industry. One of these is a bonus of 2.50 pesetas maximum per ton for the production of national coal, regardless of distribution. The other bonus is for transportation either along the Spanish coast, by rail or ship, or for exportation of national coal. The bonus for transportation by rail is fixed at 3.25 pesetas maximum for each ton of coal. For shipping purposes the

Spanish coast line is considered divided in three sections, comprising the Cantabrian, Atlantic, and Mediterranean coasts, and the maximum amount of these bonuses is as follows: Coastwise shipments from one port to another on the adjoining coasts, 3 pesetas per ton; coastwise shipments from one port to another on the opposite coast, 5.50 pesetas per ton; shipments from one port to another on the same coast, 2 pesetas per ton; shipments for a general exportation, 3.50 per ton. For the purposes of the application of these bonuses the whole territory of the maritime provinces is considered as within the littoral zone.

The maximum amount to be conceded by the Government for coal bonuses may not exceed 1,250,000 pesetas per month.

SPANISH MARITIME CREDIT

GOVERNMENT GUARANTIES OR LOANS

Article 18 of the law of August 21, 1925, provides that in addition to the other forms of aid outlined by the law the shipbuilding industry may benefit by the Government's granting credits, loans, or advances either directly or through banks or institutes subventioned or privileged, as well as loans secured by ship mortgage on construction contracts or earned subsidies not paid. The method and procedure in respect of financing was made dependent upon the report of the revising commission.

The Bank of Industrial Credit was authorized to include in its operation shipbuilding financing based upon the bonds issued for support of national industries.

Detailed information as to the proposed maritime-credit system is not at hand.

PROPOSED MARINE PROTECTION INSTITUTE

LAW OF DECEMBER 31, 1929

The proposals in respect of further aid to shipping took form in the royal decree law of December 31, 1929, published in the Gaceta de Madrid January 3, 1930, creating the Institute for the Protection of the Merchant Marine (Instituto de Proteccion a la Marina Mercante), the principal features of which are the reorganization of the general governing body which administers various protective measures and the perpetuation of a special tax on passengers and cargo, the proceeds from which have been used to reimburse shipping companies for losses incurred during the war from carrying certain commodities at low freight rates. This tax was to expire upon the final payments required under its provisions, but the decree law of January 3, 1930, perpetuates it, with the proviso that the resultant funds shall be used by the Government in further promotion of the merchant marine.

In respect of this tax as first applied, the British Department of Overseas Trade report on the industries and commerce of Spain, March, 1924, stated:

A tax on passengers and goods carried in Spanish and foreign bottoms has recently been introduced. Passengers must pay from 0.10 to 2 pesetas per

head and goods from 0.007 to 0.35 peseta per ton or package. The regulations stipulate that the tax is not to be met by an increase in the freight, but it is not clear how this can be avoided. With the proceeds it is intended to reimburse the shipping companies for their losses during the war when they agreed to accept reduced freight rates on foodstuffs and raw material imported for the needs of the country. Claims amounting to 75,000,000 pesetas are outstanding for such services rendered, and the new tax is accordingly to be maintained until this sum has been liquidated, it being calculated that 15 years will be necessary to do this.

Royal Decree Law No. 34 of December 31, 1929, and the report of the Minister of Marine proposing the law read as follows:

Report of Minister of Marine

SIR: The protection* of our merchant marine, which is more urgently demanded each day by the most important elements of our national economy, has been the constant preoccupation of Your Majesty's Government, because so important a branch of the government as national naval construction was limited to the sum of 8,000,000 pesetas per year appropriated for that purpose, and that amount sufficed to pay bonuses for only about 20,000 tons annually, while the docks in our shipyards, having a capacity of over 100,000 tons for the same period of time, remained empty, and this inactivity was obviously prejudicial in the interest of urgently needed new tonnage for our commercial fleet.

To remedy this evil there has been provided a final payment of the remainder of the sums still due for losses sustained by shipowners whose vessels were requisitioned during the World War at reduced rates by means of an appropriation of 25,000,000 pesetas for that purpose. Whereas the final settlement of these claims must terminate the tax levy established in conformity with article 9 of the royal decree of December 18, 1923, this tax levy would be a very desirable method to acquire funds for increasing the merchant marine by converting the impost into a "maritime trade tax" (*gravamen al trafico maritimo*), to be essentially identical with the former impost but to be used for the basic purpose of promoting our merchant marine. This measure will prove beneficial to our national shipowners, as it will facilitate additions to their fleet because of the great encouragement given to national ship construction.

Inasmuch as the cessation of the aforesaid impost to compensate for war losses will terminate the functions of the Junta de Cancelacion de Quebrantos (Board for Payment of Losses) which administered it, and since the creation of a new junta intended essentially to increase the sum appropriated in the marine budget for bonuses to vessel construction would require the participation of the Bonus Commission which now has the important task of fixing the amount of the bonus to be paid for each class of vessel constructed in national shipyards, it appears to be more advisable for the purpose in view to combine both organizations into one, to be known as the "Instituto de Proteccion a la Marina Mercante" (Institute for the Protection of the Merchant Marine). This institute will expend the sums appropriated not only for the purposes for which they were acquired, but also to establish another powerful and effective means to protect naval construction—maritime credit. The protective mission of these measures is expected to be greatly enhanced with the rebate on construction material when the proposed tariff rates are established.

Text of Royal Decree Law No. 34

ARTICLE 1. Under the presidency of the Minister of Marine and in the department of which he is in charge, at the General Directorate of Navigation, there is created the "Instituto de Proteccion a la Marina Mercante" (Institute for the Protection of the Merchant Marine) whose mission shall be to perform the task hitherto discharged by the Junta de Cancelacion de Quebrantos (Board of Payment of War Losses) and the commission in charge of bonuses for navigation. The said organizations are combined to form the institute named, beginning with the date of the promulgation of this decree law, to work for the promotion and development of the national merchant marine.

The Instituto de Proteccion a la Marina Mercante shall be directed by a board (*junta*) to be presided over by the Minister of Marine. Other members

of this board shall be the Director General of Navigation, one chief of the Customs Service, one representative of the Ministry of National Economy, another from the Banco de Credito Industrial, one from the Liga Maritima Espanola (Spanish Maritime League), two representatives of shipowners' associations, two representatives of shipbuilders, the chief of the navigation section of the said General Directorate, the delegate of the aforesaid Directorate of Navigation, the chief of the registration and construction section of the latter branch, the superintendent of the subsidized lines, the present secretary of the Junta de Cancelacion de Quebrantos, and the legal adviser of the General Directorate of Navigation, who shall act as secretary of the junta.

The following shall be the functions of the Instituto de Proteccion a la Marina Mercante:

(1) To fix the bases for the awarding and distribution of bonuses for the construction of merchant vessels in national shipyards and bonuses for navigation. The computation of the bonuses for ship construction shall be based on reduced prices for material used for naval construction;

(2) To liquidate payment of claims to shipowners for losses sustained when their vessels were requisitioned at low rates during the World War. These settlements are to be final, and credit shall be extended for that purpose;

(3) To organize a maritime credit for the purpose of enabling Spanish shipowners to construct their vessels in national shipyards;

(4) To pay the subsidies granted to navigation lines, as contracted by the Ministry of Marine;

(5) To take charge of all matters connected with the protection of the merchant marine.

ART. 2. The sum of 25,000,000 pesetas has been established as the appropriation for the final settlement of approved claims for losses sustained by shipowners and outfitters when their vessels were requisitioned at reduced rates during the World War, and now unpaid. Beginning with December 31, 1929, the tax established for compensating for these losses, as provided for in article 9 of the royal decree of December 18, 1929, shall be revoked.

ART. 3. Beginning with January 1, 1930, there is created a "maritime trade tax" (gravamen al trafico maritimo), which shall be levied and administered in the manner now established.

This tax is established as a provisional impost, to be included in Section II, table b, of the general estimate of State revenues, among the items making up the so-called renta de aduanas (customhouse revenues).

ART. 4. The said maritime trade tax shall be levied as follows:

Passengers.—National coastwise vessels, 0.10 peseta per passenger; trips to or from the Canary Islands, 0.50 peseta per passenger; coastwise vessels operating from headland to headland and vessels operating on the high seas, 2 pesetas per passenger.

Merchandise.—National coastwise shipping, a tax of 0.25 peseta per ton; coastwise vessels operating from headland to headland, a tax of 0.35 peseta per ton; navigation on the high seas, a tax of 0.50 peseta per ton as to both imported and exported commodities.

ART. 5. This tax shall always be for the account of the vessel, but may not be used as a pretext to increase freight and passenger rates. * * *

ART. 6. The customhouses of the Kingdom shall be entrusted with the faithful performance of the provisions of this royal decree law and may refuse to clear vessels if it is shown that their owners have not complied with them.

ART. 7. The budget of the Ministry of Marine shall each year appropriate the present sum of 8,000,000 pesetas to pay the ship-construction bonuses and another 8,000,000 pesetas (which may be increased to 10,000,000 pesetas) for navigation bonuses as established by the royal decree law of August 21, 1925, which sum shall be increased quarterly by the revenues derived from the maritime trade tax, the total amount to be delivered by the Ministry of the Treasury to the Instituto de Proteccion a la Marina Mercante. The latter organization may order the amount used and distributed for the proper purpose, but the expenditure may never exceed the total collected during the year. The sum remaining each year shall be retained by the institute for loans as provided for under the naval credit system. These loans may amount to as much as 3 per cent of the paid-in capital.

ART. 8. The Instituto de Proteccion a la Marina Mercante shall be a full juridical person entitled to settle claims filed by shipowners who sustained

losses because of the requisition of their vessels, during the war, at reduced rates, within the limits set by article 2 of this royal decree law. The Instituto de Protección a la Marina Mercante may pay these claims from its available funds and, if necessary, may, with the previous approval of the Ministry of the Treasury, make the necessary financial arrangements for the final liquidation of the said losses.

From the total sum available for the payment of the bonuses there shall be deducted each year the amount due for the amortization, by annual installments over a period of 20 years, of the loan of 25,000,000 pesetas received.

ART. 9. The Ministry of Marine shall establish the proper regulations for the organization and operation of the Instituto de Protección a la Marina Mercante and the board of the said organization shall establish adequate salaries for the administrative officials, from the Junta de Cancelacion de Quebrantos, who are appointed to assist in the operation of the institute.

The provisions of the Royal Decree Law No. 34 of December 31, 1929, and their enforcement were made effective under Royal Order No. 259, issued by the Director General of Customs for the administration and collection of the marine trade tax, March 31, 1930, and published in the Gaceta de Madrid of April 2, 1930.

PREFERENCES AND RESTRICTIONS

RESERVATION OF THE COASTING TRADE

Articles 2 to 5 of the law of August 21, 1925, limit the traffic of goods and passengers in national coastwise navigation in and between Spanish ports to vessels of Spanish registry and construction.

It is lawful for Spanish trans-Atlantic vessels to transport cabin passengers and baggage in the coasting trade in the course of their voyages in high-seas traffic even if they do not qualify for the coasting trade in other respects. Foreign trans-Atlantic vessels have the same privilege provided they belong to a country which grants this privilege to Spanish vessels. Under this provision vessels of the following countries have been authorized to transport passengers and baggage in the Spanish coasting trade in the course of their high-seas voyages: Great Britain, February 5, 1926; Denmark, February 24, 1926; Belgium, March 6, 1926; Germany, March 27, 1926; Norway, June 23, 1926. Later data are not at hand.¹⁰

All harbor services, including dredges, barges, lighters, scows, and other harbor craft, must be of national registry and construction, with certain specified exceptions.

The national coasting trade is defined to include services between Spanish ports of the peninsula, possessions of north and northwest Africa, and the Balearic and Canary Islands; and also that which is effected between said ports and Gibraltar and ports of Portugal and Morocco where Spain maintains consulates.

Vessels engaged in the coasting trade are not eligible for navigation bounties. Since March, 1923, the Government has authorized a special bounty on Spanish coal whether carried in the coasting or export trade. (See p. 550). In the coasting trade the vessels benefit by this bounty in the carriage of coal from the Cantabrian coast to Mediterranean ports, ranging from 2 pesetas to 5.50 pesetas per ton.

¹⁰ Report by H. F. Bennett, of the office of the American commercial attaché, Madrid, June 7, 1929.

EXEMPTION FROM FISCAL CHARGES

IMPORT DUTIES

Article 13 of the law of August 21, 1925, exempts vessels from import duties on foreign repairs when such repairs are due to force majeure.

In respect of duties on other foreign repairs no exemption is granted. Article 472 of the general customs ordinances of Spain as of 1927 provides that when Spanish vessels are repaired or enlarged abroad the master must, upon arriving at a Spanish port, specify in the manifests the amount of repairs or extra tonnage that the vessel has acquired, showing in detail the kind and weight of materials used, to the end that customs duties on these materials may be collected according to the customs tariffs. Spanish consuls are required to report such repairs and work on vessels to the central authorities in order that due notice may be available.

Spanish vessels refitted abroad with new machinery must, where machinery weight is not established, pay on the basis of 28 pesetas per indicated horsepower, while new boilers and boiler accessories pay 14 pesetas per square meter of heating surface.

TRANSPORTATION TAX

The system of transportation tax which is employed in Spain does not especially favor Spanish vessels but is significant in that it forms a basic public-revenue principle for tax rates which may be, and have been, raised and lowered to meet current conditions. The transportation tax likewise forms the principle upon which certain special taxes in aid of shipping and shipbuilding have been promulgated in Spain.

The basic law upon which the present transportation-tax system rests was adopted on March 20, 1900, published in the *Gaceta de Madrid* of March 25, 1900, and amended several times since. The tax is in effect a Government duty collected upon passengers and goods entering or leaving Spain through ports and frontiers, and is applied to shipping according to the trade in which the ship is employed, such as coastal and foreign, and to classes of passengers. So far as it affects a vessel it is an additional tax which is collected from the vessel on the basis of number of passengers or amount of cargo carried. Certain modifications exist in respect of special conditions.

The 1929 revision of the transportation tax ranges from 3 pesetas in the minimum coastal zone to 35 pesetas for passengers traveling under de luxe high-sea zone classification, and from 0.50 to 5 pesetas for third-class passengers in the same zones. In 1922 the taxes were 300 and 20 pesetas respectively for de luxe and third-class passengers in the maximum classifications of these zones. The 1929 cargo taxes range from 0.30 to 100 pesetas per ton (automobiles and bullion), depending upon the trade and the class of cargo. The tax is collectible on both loading and discharging, but in different degrees, and upon embarkation and debarkation of passengers. Tourist vessels and special cruises are exempt from tonnage and transportation taxes.

Temporary transportation tax of 1896

Section 1 of the transportation tax law of March 20, 1900, abolished a law of August 30, 1896, designed especially to develop the Spanish Navy. This temporary measure provided for a transportation tax for a 15-year period on both passengers and cargo, outward and inward, over Spanish frontiers and through Spanish ports. Passenger-tax rates ranged from 0.50 to 10 pesetas. The cargo rates varied according to class. The law was administered by an administration and vigilance board under the chairmanship of the vice admiral of the fleet. Section 9 of the law provided:

From the total proceeds of this tax for the entire period of its duration, the Government will dedicate a minimum amount of 80,000,000 pesetas (\$15,440,000 at pre-war par) to the construction of steamers, and cannon, equipment, machinery, etc., for same, at the national yards and factories, and will supply the material that is imported for this construction. If the material is manufactured in Spain, the Government will pay the duties established on such material in accordance with customs tariffs, without having the right to the exemptions now in effect. The same use will be made of the remaining proceeds of this tax that are not invested in the construction or purchase of steamers (war vessels), also of such proceeds as for public convenience may be realized by the Government in foreign ports.

PREFERENTIAL RAILWAY RATES

A report by the president of the general board of railway directors published in the *Gaceta de Madrid* March 1, 1928, refers to combination rates between Spanish railways and navigation companies as contained in groups 500 to 529 of railway rates, but no details are given. There is cooperation between the railways and the *Trasatlantica Co.* in the way of special sleeping-car services and boat trains from Madrid to Cadiz for passengers to connect with sailings for Argentina and Brazil.

SWEDEN

ECONOMIC DEVELOPMENT AND SHIPPING

On an area of 173,000 square miles, Sweden supports a population of 6,000,000. In 1870, 72 per cent of the population was engaged in agriculture, forestry, and fishing, 14 per cent in industry and mining, and 5 per cent in trade and transport. By 1900 these proportions had changed to 55 per cent for agriculture, forestry, and fishing, 28 per cent for industry and mining, and 10 per cent for trade and transport, and by 1920 the proportions were 44, 35, and 15 per cent, respectively.¹

The industrial expansion of the kingdom rests principally upon mineral and metal production and the lumber, wood-pulp, and wood-products industries, in which striking development has taken place. The foreign trade, with the exception of the overland trade with Norway and Finland, must be carried by water. In 1927 exports were 20,000,000 tons, with imports of 10,000,000 tons; in 1928 exports 15,000,000 tons and imports 9,500,000 tons; in 1929 exports 22,000,000 tons and imports 11,000,000 tons.

The Swedish commercial fleet is about one-half the size of the commercial fleet of Norway (1,700,000 gross tons, compared with 4,000,000 gross tons) and derives its revenues more nearly in the direct national trade, based upon Swedish foreign trade. Thus, while Norwegian vessels earn some 25 per cent of their annual freights on time charters, the Swedish merchant marine earns less than 6 per cent of its annual freight revenues in this manner. On the other hand, the Swedish shipbuilding industry is rapidly rising to a high place in the world scale of ship production. Swedish industrial expansion is the result of natural advantages, and Swedish shipping takes its proper place in the national economic life largely as a service to national industrial progress.

THE SWEDISH COMMERCIAL FLEET

GROWTH OF THE MERCHANT MARINE

The Swedish fleet has grown slowly—from a total of 804,346 gross tons in 1905 to 1,510,125 gross tons in 1929, according to Lloyd's Register figures, which take into account only vessels of 100 gross tons and above, or from 941,450 gross tons to 1,649,707 gross tons for these same years, according to Swedish official figures, which cover vessels of 20 tons net and above. On July 1, 1931, Lloyd's Register credited Sweden with 1,704,669 gross tons of commercial shipping.

The net change in the tonnage for the years since 1914 does not indicate the same ratio of motor-ship development as does that of

¹ The Sweden Yearbook, 1928, p. 81.

Norway (see p. 378), although in 1924 and 1928 motor vessels took large leads due to the addition of the *Gripsholm* and the *Kungsholm*, the new Swedish America Line motor ships of 17,000 and 20,000 gross tons. Table 134 presents the net changes in gross tonnage for the period 1913 to 1931:

TABLE 134.—GROWTH OF THE SWEDISH COMMERCIAL FLEET

Year ¹	Total commercial fleet		Net change, increase (+) or decrease (-)		
	Lloyd's Register figures ²	Swedish official figures ³	Total change ⁴	Steam and motor vessels ⁵	Sailing vessels ⁶
	Gross tons	Gross tons	Gross tons	Gross tons	Gross tons
1913.....	1,047,270	1,204,005	(⁷)	(⁷)	(⁷)
1914.....	1,118,086	1,247,745	+43,740	+43,400	+340
1915.....	1,122,883	1,146,449	-101,296	-84,800	-16,496
1916.....	1,025,020	1,109,329	-37,120	-29,749	-7,371
1917.....	(⁷)	1,057,704	-51,625	-43,392	-8,233
1918.....	(⁷)	1,035,656	-22,048	-17,398	-4,650
1919.....	928,611	1,086,459	+50,803	+52,328	-1,525
1920.....	1,072,925	1,166,559	+80,100	+73,906	+6,194
1921.....	1,160,211	1,128,153	-38,406	-34,964	-3,442
1922.....	1,115,375	1,241,944	+113,791	+109,200	+4,591
1923.....	1,207,727	1,310,838	+68,894	+79,037	-10,140
1924.....	1,254,550	1,342,389	+31,551	+44,011	-12,466
1925.....	1,301,126	1,417,340	+74,951	+88,987	-14,033
1926.....	1,338,089	1,440,468	+23,128	+29,746	-6,618
1927.....	1,365,390	1,477,692	+37,224	+43,560	-6,336
1928.....	1,447,470	1,571,569	+93,877	+98,815	-4,938
1929.....	1,510,125	1,649,707	+78,138	+80,701	-2,563
1930.....	1,623,938	(⁷)	(⁷)	(⁷)	(⁷)
1931.....	1,704,669	(⁷)	(⁷)	(⁷)	(⁷)

¹ Data are as of July 1 for Lloyd's and as of Dec. 31 for Swedish official figures.

² Vessels of 100 gross tons and upwards.

³ Vessels of 20 tons net and upwards.

⁴ Not available.

OWNERSHIP AND EARNINGS

The capital value of the Swedish commercial fleet has risen from 194,000,000 kronor (\$52,000,000)² in 1913 to approximately 454,000,000 kronor (\$121,700,000) in 1929, based upon the insurance valuation of the tonnage.³

In 1929 ownership of the fleet was distributed as follows: 80,010 gross tons to the State, individuals, business firms, and communities; 1,307,742 gross tons to share companies; 171,502 gross tons to other types of corporations; and 87,327 gross tons to partnerships.⁴

The total gross revenues of Swedish shipping for 1920 to 1929 and, for comparison, those of 1913 are presented in Table 135 below.

² Except in Tables 135 and 138 the par rate of \$0.268 has been used throughout this section in converting kronor to dollars. Swedish exchange (yearly average) has varied less than 1 per cent from par since 1923.

³ Sweden's Official Statistics: Shipping (Sjöfart), 1929, p. 26.

⁴ Idem, p. 15.

TABLE 135.—GROSS REVENUES OF SWEDISH COMMERCIAL FLEET, 1913 AND 1920-1929

Year	Earnings				Freight	
	Total	Equivalent in United States currency ¹	Foreign	Domestic	Foreign	Domestic
1913.....	<i>Kronor</i> 161,927,000	\$43,396,000	<i>Kronor</i> 138,741,000	<i>Kronor</i> 23,186,000	<i>Kronor</i> 124,460,000	<i>Kronor</i> 17,372,000
1920.....	595,969,000	122,114,000	521,147,000	74,822,000	482,916,000	61,413,000
1921.....	253,155,000	57,061,000	204,784,000	48,371,000	182,707,000	36,295,000
1922.....	228,862,000	59,893,000	188,222,000	40,640,000	171,768,000	31,790,000
1923.....	248,520,000	65,982,000	205,542,000	42,978,000	185,196,000	34,469,000
1924.....	246,300,000	65,319,000	204,596,000	41,704,000	186,646,000	33,294,000
1925.....	257,784,000	69,215,000	214,346,000	43,438,000	194,726,000	35,300,000
1926.....	287,081,000	76,823,000	244,426,000	42,655,000	218,365,000	35,055,000
1927.....	306,835,000	82,262,000	264,369,000	42,466,000	234,817,000	35,130,000
1928.....	306,099,000	82,035,000	264,250,000	41,849,000	230,332,000	34,938,000
1929.....	339,019,000	90,787,000	296,597,000	42,413,000	259,241,000	35,521,000

Year	Passenger		Mail		Time charter	
	Foreign	Domestic	Foreign	Domestic	Foreign	Domestic
1913.....	<i>Kronor</i> 1,487,000	<i>Kronor</i> 5,673,000	<i>Kronor</i> 288,000	<i>Kronor</i> 141,000	<i>Kronor</i> 12,506,000	<i>Kronor</i> 142,000
1920.....	17,555,000	12,795,000	515,000	472,000	20,161,000	413,000
1921.....	16,690,000	11,363,000	432,000	300,000	4,955,000	100,000
1922.....	13,347,000	8,507,000	383,000	191,000	2,724,000	152,000
1923.....	16,438,000	7,946,000	316,000	177,000	3,592,000	386,000
1924.....	11,362,000	7,803,000	109,000	168,000	6,479,000	439,000
1925.....	14,134,000	7,877,000	339,000	163,000	5,147,000	98,000
1926.....	19,229,000	7,352,000	375,000	175,000	6,457,000	73,000
1927.....	19,701,000	7,093,000	360,000	172,000	9,491,000	71,000
1928.....	20,508,000	6,626,000	348,000	169,000	13,062,000	116,000
1929.....	21,741,000	6,574,000	626,000	168,000	14,989,000	150,000

¹ Converted at par (\$0.268) for 1913 and at \$0.2049 for 1920, \$0.2254 for 1921, \$0.2617 for 1922, \$0.2655 for 1923, 0.2652 for 1924, \$0.2685 for 1925, \$0.2676 for 1926, \$0.2681 for 1927, \$0.268 for 1928, and \$0.2678 for 1929.

Sources: Statistical Yearbook of Sweden, 1930; Sweden's Official Statistics, Shipping (Sjöfart), 1929.

The coasting trade of Sweden does not have the same significance for the nation as does that of Norway. Baltic harbors are frozen for many months of the year, and the northern Swedish communities are not dependent upon shipping as the sole means of transportation, two trunk rail lines penetrating that section. The earnings of the shipping industry in the domestic trades, however, are considerable; as the table above shows, domestic shipping earned in round figures 42,000,000 kronor (say, \$11,000,000) annually during 1927, 1928, and 1929. Approximately one-seventh of the freight earnings of the Swedish merchant marine and more than one-fourth of the passenger revenues were earned in the domestic trade during the 5-year period ending 1929.

EMPLOYMENT OF THE FLEET

Since 1905 the Swedish commercial fleet has required a personnel averaging nearly 23,000, and for 1929 the number was 24,400.⁵

Calculated on the basis of net tonnage, the employment of the Swedish fleet as between the international and domestic trades has been as set out in Table 136.

⁵ Sweden's Official Statistics (Sjöfart), 1929.

TABLE 136.—EMPLOYMENT OF SWEDISH COMMERCIAL FLEET, 1913-1929

Year	International trade (direct and indirect)			Domestic trade		
	Steam vessels	Motor ships	Sailing vessels	Steam vessels	Motor ships	Sailing vessels
	<i>Gross tons</i>	<i>Gross tons</i>	<i>Gross tons</i>	<i>Gross tons</i>	<i>Gross tons</i>	<i>Gross tons</i>
1913.....	1 934, 688	(?)	148, 131	1 78, 350	(?)	23, 339
1914.....	1 974, 947	(?)	146, 379	1 76, 342	(?)	22, 339
1915.....	1 876, 230	(?)	117, 037	1 75, 167	(?)	21, 338
1916.....	1 847, 911	(?)	117, 972	1 75, 896	(?)	19, 644
1917.....	1 756, 140	(?)	99, 179	1 103, 623	(?)	22, 623
1918.....	1 765, 830	(?)	103, 514	1 81, 532	(?)	23, 062
1919.....	1 838, 128	(?)	108, 016	1 80, 394	(?)	20, 925
1920.....	1 921, 724	(?)	111, 042	1 77, 692	(?)	27, 592
1921.....	704, 035	102, 569	1 21, 996	67, 523	7, 609	1 9, 565
1922.....	1 576, 662	1 117, 237	1 67, 822	1 46, 691	1 6, 029	1 20, 894
1923.....	1 623, 954	1 131, 005	1 81, 904	1 48, 217	1 6, 440	1 21, 064
1924.....	1 645, 467	1 142, 209	1 70, 636	1 46, 601	1 7, 049	1 21, 914
1925.....	910, 572	286, 059	74, 883	78, 447	10, 033	25, 307
1926.....	939, 014	290, 464	71, 204	74, 437	9, 735	23, 939
1927.....	960, 184	297, 298	70, 224	82, 696	12, 149	20, 296
1928.....	1, 002, 582	368, 549	68, 487	75, 529	11, 491	18, 795
1929.....	1, 040, 747	408, 342	66, 272	72, 958	11, 178	19, 250

1 Includes motor ships.

2 Included with steam vessels.

3 Includes vessels with auxiliary power only.

4 Net tons.

Source: Sweden's Official Statistics, Navigation Annual Reports.

DEVELOPMENT OF SWEDISH SHIPBUILDING

Sweden is well supplied with raw material for steel and wood products and has abundant water power. Lack of coal prevents, as yet, quantity production of iron and steel for shipbuilding purposes, which must be imported. Very high quality steel for tools and machinery is manufactured by the charcoal process, and if a method is found for economical production of steel by electric power a new development in Swedish shipbuilding may be expected.

Swedish engineers and workmen have the specialized technical equipment necessary, while wages are among the highest in Europe. Absence of labor troubles has aided the Swedish shipyards in fulfilling their obligations in regard to work and delivery.

The Statistical Yearbook for Sweden gives 86,091,000 kronor (\$23,072,000) as the value of the shipbuilding industry in 1928.

LAUNCHINGS IN RECENT YEARS

The substantial progress of the Swedish shipbuilding industry during recent years has raised it to rank nearly with that of Denmark. During the decade ending with 1930 Danish shipyards launched 836,523 gross tons, Norwegian yards 245,017 gross tons, and the Swedish yards 667,846 gross tons. Lloyd's Register gives Sweden seventh place among shipbuilding nations in launchings for 1930 and 1929; in 1928 it had ranked sixth, in 1927 seventh, in 1926 eighth, in 1925 ninth.

Launchings at Swedish shipyards in recent years have been :

TABLE 137.—LAUNCHINGS IN SWEDISH SHipyARDS, 1913 AND 1920-1930

Year	Vessels launched		Year	Vessels launched	
	Number	Gross tons		Number	Gross tons
1913.....	25	18,524	1925.....	17	53,750
1920.....	46	63,823	1926.....	14	53,518
1921.....	27	65,911	1927.....	18	67,361
1922.....	14	30,038	1928.....	20	106,912
1923.....	10	20,116	1929.....	29	107,246
1924.....	12	31,211	1930.....	31	131,781

Source: Lloyd's Annual Summary, 1930.

It is an interesting fact that the tonnage of ships launched during 1930 equaled the combined total of the years 1901 to 1913.

The industry is largely concentrated in three of the 26 shipyards of Sweden—the Götaverken and the Eriksbergs of Goteborg and Kockums of Malmo. For the last 25 years additions to the Swedish Navy have been built by domestic yards. Repair work has been fairly constant:

DOMINATION OF THE MOTOR SHIP

In reviewing the Swedish industry for 1928 Vice Consul Benjamin M. Hulley stated that the outstanding features were increased concentration on motor ships, specialization in motor tankers, large deliveries to foreign firms, manufacture of marine engines, a strong competitive ability against foreign yards, and a steady influx of new orders to maintain a large balance of unfilled orders on hand. A new development was a marked increase in the size of motor tankers constructed. To these factors may be added the sound basic industrial conditions in Sweden, the absence of labor difficulties in shipbuilding and related industries, the high technical equipment of Swedish engineers, workmen, and shipyards, and the possession or proximity of requisite materials.

Vice Consul Hulley's report continued :

Of the ships launched in 1928, 15, of 103,637 tons, or 97 per cent of the total tonnage, were motor ships. In 1927 motor ships numbered 13, of 61,989 tons, or 92 per cent of the total launchings.

Tankers comprised 77 per cent of the motor ships launched in 1928, or 10 ships of 79,941 gross tons, a greater output than the total ships built in Sweden in any previous year. The three largest yards have specialized in motor tankers for the past few years, have produced them in successful competition with foreign yards, and although demand for new tankers is falling off, there are many orders still on hand for this type of ship.

A fundamental factor in the present flourishing condition of Swedish shipbuilding is the production of marine engines in the principal shipyards; the three yards which built 94 per cent of the new tonnage built also the machinery for the ships. In addition the Götaverken supplied machinery for the *Fermia* and auxiliary machinery for the *Kungsholm*, while Atlas-Diesel of Stockholm (which does not build ships) has supplied a number of Diesel engines to British yards. At the close of 1928, 103 marine engines of 90,225 horsepower were under construction in Sweden, a gain of about 30 per cent during the year. In number of engines under construction Sweden was exceeded only by Great Britain, while in horsepower of engines building Sweden ranked sixth, having outstripped the United States.

SWEDEN'S FOREIGN TRADE BALANCE IN SHIPS

Purchases of ships from abroad by Swedish owners are in most cases old tonnage for tramp services. Among ships built abroad during 1928 were the motor liner *Kungsholm* of 20,223 tons, built by Blohm & Voss at Hamburg, no Swedish yard having facilities for ships of this size, and a cargo and passenger steamer *Gondul* of 1,322 gross tons built at Helsingor, Denmark, as one of a series of modern steamers for the export of agricultural produce from south Sweden to England.

TABLE 138.—SWEDEN'S EXPORTS AND IMPORTS OF VESSEL TONNAGES 1913 AND 1920-1929

Year	Value of ships exported		Value of ships imported	
	Kronor	Equivalent in United States currency ¹	Kronor	Equivalent in United States currency ¹
1913.....	941,333	\$252,277	8,139,024	\$2,181,258
1920.....	11,343,473	2,324,278	66,775,408	13,682,281
1921.....	24,711,059	5,569,873	20,796,191	4,687,461
1922.....	5,768,900	1,509,721	12,367,668	3,236,619
1923.....	797,594	211,762	6,951,605	1,845,651
1924.....	7,198,989	1,909,172	10,399,455	2,757,935
1925.....	2,253,570	605,083	21,368,490	5,737,440
1926.....	13,510,161	3,615,319	7,766,561	2,078,332
1927.....	21,594,328	5,789,439	8,499,396	2,278,688
1928.....	23,058,870	6,179,777	25,277,521	6,774,376
1929.....	25,210,559	6,751,388	17,863,106	4,783,740

¹ Converted at the par rate of \$0.268 for 1913 and at the average annual rate of exchange for the remaining years.

Source: Statistical Yearbook of Sweden.

In recent years Norway has been the chief foreign customer of Swedish shipyards.

A strong trend toward a favorable balance in ship sales and purchases appears since 1926. It should be remembered, however, that in 1925 the *Gripsholm* and in 1928 the *Kungsholm* were brought from abroad at a cost of four to five million dollars each.

POSTAL CONTRACT SERVICES

In 1914 Sweden was paying 560,000 kronor (\$150,080) for its oversea connections under the national flag—210,000 kronor (\$56,280) to the East Asiatic line, 150,000 kronor (\$40,200) to the New York line, 100,000 kronor (\$26,800) to the South American line, and 100,000 kronor (\$26,800) to the Australian line. In return the lines were to carry the Swedish mails free to the continents served, if requested by the Swedish post office, the amount to the East Asiatic Co. being designed to refund in part its Suez Canal tolls. These contracts expired during the war and have not been renewed. They were never to be regarded as mail subsidies in the ordinary sense; Swedish oversea mails usually were not and are not sent in that way.

The oversea mails of Sweden, as of Norway, are as a rule sent to Frederikshavn, Denmark, thence by rail through to the channel

ports, where they are put on the fastest trans-Atlantic liners for the Americas; or to Mediterranean ports, to take the fastest liners for Asia and Australia. Generally speaking, the European oversea mail system contemplates the use of the continental railways as far as possible and connections at the terminals with the fastest vessels in order to expedite the mails.

Sweden no longer maintains subsidized liner services. An account of the pre-war system is therefore a matter of historic interest only. The following discussion is based on material contained in Government Aid to Merchant Shipping.⁶

PRE-WAR SUBSIDY SYSTEM

Prior to 1906 practically the only direct governmental aid extended to Swedish shipping was in the form of payments for transportation of mail. These payments were largely, if not entirely, compensation for a definite transportation service and were made to foreign as well as to Swedish shipowners. However, a few mail contracts in existence before 1906 might be considered as granting a certain degree of subvention.⁷

One of these was with the Gothland Steamboat Co. and provided for a line of steamers between the island of Gothland and the mainland of Sweden for a period of five years, beginning with the autumn of 1896. This contract called for a semiweekly passenger, freight, and mail service between Wisby and Stockholm, between Wisby and Vastervik, and between Wisby and Norrköping. For every round trip engaged in the carriage of mails on the Wisby-Stockholm route a payment of 700 kronor (\$188) was made, 500 kronor (\$134) from the post-office fund and 200 kronor (\$54) from the commercial and shipping fund; while for each round trip on the other two routes a payment of 500 kronor (\$134) was made by the Post Office Department.

Another contract was entered into on September 12, 1896, between the General Post Office and the Swedish & Continental Shipowners Co. This contract, which came into operation on May 1, 1897, for a period of 10 years, called for the maintenance of a daily mail service between Tralleborg, Sweden, and Sassnitz, Germany. The Swedish Government was to pay the cost of one-half of the required number of trips, or 100,000 kronor (\$26,800), annually, while the German Government was to pay the balance. This contract was modified December 3, 1899, and March 3, 1899, when a yearly subvention of 225,000 kronor (\$60,300) was provided.

Following 1909 the traffic between Tralleborg and Sassnitz moved largely in car ferries, by which method trains could be run through without change from Berlin to Stockholm, thus saving much time and making the use of steamships for this purpose unnecessary.

Another contract was entered into under an agreement between Sweden and Russia on May 4 (16), 1895. This convention provided

⁶ Jones, Grosvenor M.: Government Aid to Merchant Shipping, 1923, ed., pp. 119-121 and 389; issued as Special Agents Series No. 119 by the Bureau of Foreign and Domestic Commerce, Department of Commerce, Washington.

⁷ Great Britain, Foreign Office: Further Reports on Bounties on the Construction and Running of Ships, etc., Commercial No. 2 (1898), p. 110.

for the carrying of mails between Sweden and Finland during the winter months. The service was to be established and kept up by the Finnish Postal Department, but the expense was to be borne equally by the postal departments of the two countries. The Swedish share was placed at the maximum of 10,000 Finnish markkaa (\$1,930), with the proviso that if the number of postal trips in both directions should be less than 26 in any winter the contribution of Sweden should be made on the basis of not more than 400 markkaa (\$77) each round trip.

NAVIGATION BOUNTIES

From 1886 to 1891 the Swedish Government paid an annual subsidy of 25,000 kronor (\$6,700) to the Vestervik-Libau Steamship Co. for the maintenance of regular service between Sweden and Russia.

Since 1906 contracts were entered into by the Swedish Government with the North Star Steamship Co. (Rederiaktiebolaget Nordstjernen), Swedish East Asiatic Co. (Svenska Ostasiatiska Kompaniet), Svea Steamboat Co. of Stockholm (Stockholms Rederiaktiebolaget Svea), Swedish America-Mexico Line (Aktiebolaget Svenska Amerika-Mexiko Linien), and the Trans-Atlantic Steamship Co.

The agreement with the North Star Steamship Co., approved by the law of 1906, called for the maintenance of a regular steamship line between Sweden and Argentina, Uruguay, and Brazil, with free carriage of mails. This 5-year contract called for a total grant of 510,000 kronor (\$136,680), payable at the rate of 102,000 kronor (\$27,340) per year. By an order in council in 1908 an extra allowance of 145,000 kronor (\$38,860) was granted for the period 1908-1910, and in 1910 a law was passed providing for the payment of a total annual subsidy of 110,000 kronor (\$29,480) during the years 1911 to 1915.

An order in council of December, 1907, authorized a subsidy not to exceed 370,000 kronor (\$99,160) per year for five years to the Swedish East Asiatic Co. (Svenska Ostasiatiska Kompaniet). This company was to maintain jointly with the Danish East Asiatic Co. a regular steamship service between Sweden and Denmark and the East and was to carry mails free of charge. The bounty was intended to reimburse the company for Suez Canal fees.

The grant made to the Swedish East Asiatic Co. was reduced considerably upon the expiration of its original convention. A law of 1911, which prolonged for five years the agreement between the Swedish Government and the Swedish East Asiatic Co., provided that in the years 1913 to 1915 the Government would reimburse the company to the extent of 60 per cent of the Suez Canal dues and fees actually paid; for 1916, 55 per cent; and for 1917, 50 per cent. In no case, however, was the grant to exceed 300,000 kronor (\$80,400) in the years 1913, 1914, and 1915, 275,000 kronor (\$73,700) in 1916, or 250,000 kronor (\$67,000) in 1917.

The Svea Steamboat Co., of Stockholm (Stockholms Rederiaktiebolaget Svea), operated a regular line of steamships between Stockholm and Riga under a subsidy granted by an order in council of October, 1908. This subsidy was to run for five years at the rate of 60,000 kronor (\$16,080) for the first two years, 55,000 kronor

(\$14,740) for the third year, and 50,000 kronor (\$13,400) for the fourth and fifth years. The company was bound to carry mails if the Swedish postal authorities so required.

In 1912 a new line to the United States was established under an agreement with the Swedish America-Mexico Line (Aktiebolaget Svenska Amerika-Mexiko Linien) to operate a cargo and passenger service between Goteborg and New York for a period of five years. The subsidy granted was 100,000 kronor (\$26,800) per year.

In 1913 a service between Sweden and Australia was established by the Trans-Atlantic Steamship Co. under an agreement with the Swedish Government that called for an annual subsidy of 100,000 kronor (\$26,800).

BUDGET PROVISIONS FOR BOUNTIES

The principal subsidies provided in the budgets of Sweden for the years 1907 to 1917 are indicated in Table 139.

TABLE 139.—PRINCIPAL SWEDISH BUDGET PROVISIONS FOR SUBSIDIZED SHIPPING SERVICES, 1907-1917

Budget year	Total appropriation		Swedish America-Mexico Line, kronor	North Star Steamship Co. (Sweden to Argentina and Brazil), kronor	Swedish East Asiatic Co. (Sweden to Eastern Asia), kronor	Trans-Atlantic Steamship Co. (Sweden to Australia), kronor
	Kronor	Equivalent in United States currency ¹				
1907.....	240,000	\$64,320		240,000		
1908.....	560,000	150,080		90,000	470,000	
1909.....	590,000	155,440		90,000	370,000	
1910.....	485,000	129,980		90,000	370,000	
1911.....	480,000	128,640		110,000	370,000	
1912.....	380,000	101,840		110,000	270,000	
1913.....	560,000	150,080	150,000	100,000	210,000	100,000
1914.....	560,000	150,080	150,000	100,000	210,000	100,000
1915.....	540,000	144,720	150,000	80,000	210,000	100,000
1916.....	190,000	50,920			190,000	
1917.....	165,000	44,220			165,000	

¹ Converted at the par rate of \$0.268 to the krona.

² Budget included an additional 120,000 kronor for extra services to be maintained by unnamed operator, but presumably the North Star Co., to South America.

³ Does not include 25,000 kronor provided for special services.

SWEDISH MARITIME CREDIT

GOVERNMENT LOAN FUND

Sweden was one of the first nations to establish the principle of a revolving Government loan fund in aid of shipping and shipbuilding. The material for the following discussion of the subject was supplied by Vice Consul Benjamin M. Hulley in a report of November 16, 1927:

In conformity with its general policy of granting assistance to various industries, the Swedish Government in 1903 established the present policy of assisting Swedish shipping by Government loans. An act of Parliament of December 18, 1903, established a loan fund of 5,000,000 kronor (\$1,340,000) for Swedish shipping, and outlined the policy and conditions of granting loans which in the main are still effective. The fund was increased by 5,000,000 kronor in 1905,

by another 5,000,000 kronor in 1907, by 2,000,000 kronor in 1911, and by 3,000,000 kronor in 1924. From 1911 to 1924 the fund was unchanged at 17,000,000 kronor, and the small increase in 1924 brought it up to the present total of 20,000,000 kronor.

On October 5, 1927, the Swedish Board of Trade (Kommerskollegium) presented to the Crown a request for an increase of 8,000,000 kronor in the Swedish Government shipping loan fund, or from 20,000,000 to 28,000,000 kronor (from \$5,360,000 to \$7,504,000). The request was supported by statistics on the growth and use of the shipping fund in Sweden, on the age, composition, and financial difficulties of the present merchant marine, and costs of shipbuilding as compared with the period prior to the war.

The law of 1903 provided that the loan fund should be used chiefly for promoting Swedish shipping in foreign ports and particularly in far-distant waters. Domestic shipping should be given support from the fund only in exceptional cases. If loans are sought for shipbuilding, preference should be given to applicants who will build in Swedish shipyards, other conditions being the same.

CONDITIONS UNDER WHICH LOANS ARE GRANTED

Rules for granting loans were laid down in the law of 1903 and amended in some details in a law of April 26, 1912. As amended these regulations require that written application for loans give the following information: (1) Amount of loan desired; (2) complete description of the kind and extent of shipping business of the applicant as at present and as proposed for the future; (3) use to which loan will be applied, and, if this includes the acquisition of a new ship, where and by whom the ship is to be built and its size, class, and proposed use; (4) names and registered numbers of ships employed by the applicant; (5) certificates of capable and disinterested persons giving the estimated value of each ship of the company; (6) satisfactory certificate of the seaworthiness of each; (7) if the applicant is a corporation, there must be submitted the charter of organization, certificate of its registration, and a guaranty that the request has been made with due authority.

Application is made to the King, and the size of the loan is fixed by him after approval of the application by the Board of Trade, which will give particular attention to requests for loans to assist in building ships in Sweden and will make whatever conditions may be required to insure the proper use of the loan. The Paymaster General (Statskontoret) will advance the loan upon deposit of approved security for its repayment. The right of a loan is forfeited if acceptable security is not presented within two months.

The annual interest on such loans is 4 per cent, computed from the date of the loan. Two years after the loan, repayments begin at the rate of one-sixth of the total per year for six years, so that the total will be repaid in eight years. If payment is not made within eight days after due date, interest is imposed from due date at 6 per cent on the amount in default. If the securities presented are found during the loan period to have become unsatisfactory, approved securities must be presented within two months.

The shipping company must annually certify to the Board of Trade that the shipping activity for which the loan was granted is being continued, and to what extent. If a ship has been used for security, an annual certificate of its seaworthiness must also be presented. If the shipping company to which a loan has been granted ceases operations before repayment, any part of the loan not used will be immediately repayable; or if such company reduces its operations, the Board of Trade will report the facts to the King, who will decide whether and in what way the loan shall be immediately repaid.

Under a law of May 7, 1915, applications for loans must be presented before June 30 and December 31 each year, and following those dates decisions are made on all pending applications.

INADEQUACY OF FUND TO MEET DEMANDS

In practice the method of repayment makes about 3,380,000 kronor (\$905,840) available each year for new loans. The inadequacy of this sum to meet demands for loans is clear from the following table, which shows from 1911 to June 30, 1927, the number and size of applications received, the number and size of applications approved, and the amount granted.

TABLE 140.—APPLICATIONS FOR LOANS UNDER SWEDISH REVOLVING LOAN FUND, 1911-1926

Year	Total applications		Approved applications		
	Number	Amount requested	Number	Amount requested	Amount granted
1911	19	Kronor 2,720,000	18	Kronor 2,670,000	Kronor 1,345,000
1912	16	3,770,000	14	3,710,000	1,800,000
1913	36	9,228,000	30	8,800,000	3,455,000
1914	30	7,178,000	25	6,923,000	3,010,000
1915	28	5,968,500	27	5,953,500	3,140,000
1916	76	23,107,870	33	14,220,870	6,265,000
1917	33	8,062,000	22	4,382,000	3,068,500
1918	33	13,611,000	14	6,596,000	5,090,000
1919	54	40,173,500	16	9,170,000	3,850,000
1920	39	49,955,000	14	36,950,000	3,230,000
1921	46	54,950,000	18	37,335,000	4,308,000
1922	28	20,592,000	9	17,600,000	2,684,000
1923	32	17,281,000	13	15,605,000	3,525,000
1924	20	14,136,000	9	12,781,000	2,960,000
1925	20	21,435,200	11	19,855,200	3,475,000
1926	19	18,712,000	9	15,955,000	2,865,000
1927 (January-June)	4	6,650,000	4	6,650,000	1,480,000
Annual average 1911-1926	33	19,430,067	18	13,655,411	3,379,406

From the above table it is seen that slightly over half of the applications received from 1911 to 1926 were approved, and the total loans granted were about one-fourth of the sums requested in the approved applications and about one-sixth of the amounts requested in all applications.

In October, 1927, 15 applications were pending requesting a total of 14,225,000 kronor, with loan funds available of 1,375,000 kronor, or 9.6 per cent of the demands.

SPECIAL LOAN TO SWEDISH AMERICA LINE

On January 26, 1926, the Swedish America Line applied to the Crown for a loan of 8,000,000 kronor (\$2,140,000) with which to finance construction of a new motor passenger liner for the trans-Atlantic service. This amount was estimated on the basis of the cost of the 17,000 gross ton *Gripsholm*, which was 14,000,000 kronor (\$3,752,000, or \$220 per gross ton), while the proposed 20,000 gross ton *Kungsholm* was to cost 16,000,000 kronor (\$4,288,000). The application, therefore, was for the purpose of financing 50 per cent of the cost of the vessel.

The Swedish Board of Trade reported favorably on the proposition and stated as principal reasons for this indorsement (1) that the additional vessel would strengthen the overseas service to the United States and the ties between Sweden and Swedish Americans, (2) that the reduction of emigrant traffic to the United States had proportionally increased cabin-passenger requirements on the line until present equipment was not considered adequate, and (3) that at 5 per cent depreciation and 5 per cent dividend allowances the vessel could safely be amortized, and recommended that the loan of 8,000,000 kronor be granted if the vessel were built in Sweden and limited to 6,000,000 kronor if built abroad.

The petitioning company stated that if the loan were reduced to 6,000,000 kronor, it could not begin repayments until necessary private loans had first been cleared, and proposed repayments to begin in the sixth year after the vessel should go into commission.

The Government then recommended—

1. That a loan of 8,000,000 kronor be authorized;
2. That if the vessel were built in Sweden the full amount be loaned;
3. That if vessel were built abroad only 6,000,000 kronor be loaned;
4. That security for the loan should be subject to royal approval;
5. That unrepaid parts of the loan should draw 5 per cent interest; and
6. That if the loan amounted to 8,000,000 kronor, repayments should begin in two years; and if it amounted to 6,000,000 kronor, payments should begin in five years from the date of registry, repayable from that date in 10 equal annual payments.

The Riksdag approved the proposal on April 10, 1926, and transmitted a report to the King on April 20, 1926, in which the Crown was authorized to modify the required credits as might become necessary or advisable.

The *Kungsholm* was built by Blohm & Voss at Hamburg, the engines were built in Copenhagen by Burmeister & Wain, and the auxiliaries by the Götaverken, Goteborg, Sweden.

SHIP-MORTGAGE FUND OF 1929

In 1927 the Swedish Shipbuilders' Association reported to the Swedish Board of Trade on the subject of the loan fund, as follows:

Since the war only those yards which have sufficient resources to give large and long-time credits have been able to secure new contracts of any size. In order to compete with foreign yards they have been obliged to extend credit to Swedish shipowners alone in an amount greater than the State loan fund.

By giving these credits they have secured large contracts and given work to many Swedish workmen, but the individual granting of credit is believed to have reached its maximum.

Later Vice Consul Hulley reported that during 1928 there was considerable discussion of a plan to establish a marine mortgage bank to develop the merchant marine and particularly to assist in building new ships. According to this plan the needed funds were to be supplied by shipowners and large financial institutions such as insurance companies, supplemented by Government funds advanced against holdings of the bank as security, Government assistance to be withdrawn as the resources of the bank were built up.

The new capital annually needed by the Swedish merchant marine was estimated at 50,000,000 kronor (\$13,400,000). The Shipbuilders' Association favored such a credit institution for Swedish shipowners because it would give Swedish yards greater ability to compete with foreign yards.

BASIC CAPITAL

The plans above referred to took definite shape in 1929 in the establishment of the Swedish Ship Mortgage Fund (Svenska Skeppshypotekskassen), a Government-owned institution which by law will provide not to exceed 100,000,000 kronor (\$26,800,000) for loans secured by mortgages on Swedish vessels. The institute rests upon the authority of royal decree No. 129 of June 6, 1929. The operative regulations under which the fund is administered were established by royal decree No. 364 of November 22, 1929.

Respecting the new fund Consul H. C. Struve, of Goteborg, reported on January 24, 1930:

The basic capital of the fund is furnished entirely by the State in the form of Government bonds to the value of 10,000,000 kronor (\$2,680,000). This basic capital is not intended to be used, however, to provide funds to be loaned out, although it may be temporarily drawn upon to pay operating expenses. Funds for loaning out are to be secured by the sale of bonds to be issued by the fund and sold to the public, and the limit to which bonds may be issued is at present fixed at not more than ten times the basic capital, or 100,000,000 kronor (\$26,800,000). The security for these bonds will consist of the basic capital and of the securities taken by the fund when loans are made. While the issuance of bonds is now limited to 100,000,000 kronor, the proposal is already being advanced to double this amount. Although the Government assumes no liability for the bonds issued beyond the basic capital of 10,000,000 kronor provided in the form of Government bonds, if the operations of the fund should result in losses exceeding the resources of the fund the Government would presumably be called upon to make up the deficit. The limitation of the basic capital may therefore in a way be considered as the measure of the institution's operating capacity rather than as the limit of the governmental responsibility for the institution's financial undertakings.

Operations were begun by offering for sale bonds of the total face value of 20,000,000 kronor (\$5,360,000). These bonds bear 5 per cent interest, payable semiannually, with final date of maturity as of March 1, 1950. The bonds were opened for subscription at par, plus stamp tax, and were oversubscribed within a few hours.

The new loan fund is not to supplant the fund established in 1903, which, as stated, was found inadequate to meet the needs of Swedish shipping. The bonds of the new fund are guaranteed by the State and will be proper investments for insurance companies and for

trust and other funds which by law are limited in the class of securities they may buy. The new fund, therefore, will provide an outlet for public and semipublic funds which heretofore could not legally find employment in shipping.

MANAGEMENT—LOAN LIMIT

The affairs of the new fund will be administered by a board of directors of five members appointed by the Government for three years. After the expiration of the term of service of the first board the borrowers may nominate candidates for appointment.

Loans are limited to first mortgages up to 50 per cent of the value of power-driven vessels, preferably built in Sweden, and must be repaid in 10 years upon a fixed plan of amortization, although extension of final payment not to exceed one year may be granted. The mortgaged vessel must also be fully covered as to insurance and may not be transferred to foreign registry without the consent of the board.

BORROWERS' LIABILITY

An unusual provision in the present fund is the liability incurred by the borrowers. Should any loss to the fund accrue through transfer of a vessel to foreign registry without the consent of the board, all borrowers from the fund during the year that such transfer took place will be responsible for the amount of the loss in proportion to the highest amount of their unpaid loans during the fiscal year, and if any borrower is unable to pay the amount thus due the others will be responsible for his share. On the other hand, once each year the borrowers will meet for the purpose of examining the management and accounts of the funds and report on this to the Swedish Department of Commerce and the authorized delegates of the State Debt Office within eight days after the meeting.

This feature of making the borrowers jointly responsible for the good faith of their members and of placing the entire operation of the fund subject to the general surveillance of the interested borrowers is a new development in Government loan funds in shipping.

INITIAL LOANS

In respect of the initial operations of the loan fund Consul von Struve reported on April 14, 1930, that 10 companies had made requests for loans amounting to a total of \$3,819,914, but according to the State Debt Office, which administers the fund, there was only \$420,760 at its disposal on March 31, 1930. The Board of Trade proposed that the following shipping companies at Goteborg be granted loans: Swedish America-Mexico Line, 500,000 kronor (\$134,000); Steamship Co. Castella, 300,000 kronor (\$80,400); Steamship Co. Unda, 200,000 kronor (\$53,600); Steamship Co. Gota Canal, 163,000 kronor (\$43,684). In addition it was proposed that the Svea Steamship Co. of Stockholm be granted a loan of 400,000 kronor (\$107,200) and a small shipping company in Skane 7,000 kronor (\$1,876).

PREFERENCES AND RESTRICTIONS

RESERVATION OF THE COASTING TRADE

The Royal Swedish Board of Trade, replying to an inquiry from Assistant Trade Commissioner Basil D. Dahl, made the following statement in respect of the Swedish coasting trades:

The coastwise trade of Sweden is reserved for Swedish vessels in accordance with the royal decree of February 28, 1726, except in so far as exceptions have been made in favor of foreign ships. Such exceptions now exist for vessels belonging to Argentina, Belgium, Denmark (vessels of more than 30 net register tons), France, the Irish Free State, Iceland, Italy, Japan, China, Netherlands, Portugal, Great Britain, and Northern Ireland.

Shipmasters navigating in home traffic are required before sailing to report at the customs, unless the ship be exempt from control by the customs. If the ship has not earlier in the year been engaged in home traffic, or if the ship is intended to carry goods liable to duty, the master shall report at the customs even if there is no customhouse at the port of departure. The following vessels are exempt from customs control:

(a) Passenger vessels making regular voyages in accordance with advertised schedules;

(b) Vessels that do not ply outside the customs district in which their port of registry is located, vessels not carrying merchandise or passengers outside said and neighboring customs districts, and/or vessels plying only in inland waters.

Customs permits to vessels engaged in home trade are issued by the district customs and are valid for one calendar year (year's license). The permit shall be shown to the customs officials whenever the vessel which is engaged in home trade makes a call at a customs port.

Masters of ships that are exempt from customs control need not have a customs permit.

A Swedish ship having a dutiable (net register tonnage) capacity of 20 tons or more, which is used for carrying freight, passengers, or both, must be registered and have received a certificate before the above-mentioned permit (customs license) can be obtained from the customs. Foreign ships which are not permitted to participate in the coastwise trade of Sweden can not obtain annual permits from the Swedish customs.

If a ship flying the flag of a country where Swedish ships are not given the same rights and privileges as the ships of that country wants to unload cargo carried from foreign countries at other places along the rivers, canals, or lakes in Sweden than where there are staple towns, this foreign ship must apply to the Royal Swedish Board of Trade (Kommerskollegium), Stockholm, for permission to do so. The Royal Swedish Board of Trade, after consulting the Swedish customs authorities, decides whether or not the request should be granted. Such an application seldom has been refused.

EXEMPTION FROM FISCAL CHARGES

IMPORT DUTIES

On January 1, 1930, royal decree No. 215 of October 4, 1929, in respect of customs drawback, became effective. This decree contains the following provisions affecting vessels:

PAR. 3. After the completion of the constructing, remodeling, repairing, furnishing, or equipping (including equipping with spare parts) of a Swedish or foreign vessel of more than 70 tons gross or foreign metal vessels of less than 70 tons gross—or of a ships' dock, dock gates, pontoon, slip or cradle or dredging equipment—and for the constructing, remodeling, repairing, and furnishing of which said concern has made use of materials imported from abroad, the said concern shall be entitled to the reimbursement of customs duties on a corresponding quantity of materials or other articles of similar kinds which have been imported by said concern from abroad within five years before the completion of said work. In the case of Swedish vessels which are exempt from

compulsory ship measurement, the 70 tons gross shall for this purpose be considered as corresponding to 20 meters [65.6 feet] length, measured according to the rules applying to such vessels, construction, and equipment. Claims shall also be valid with respect to the materials which may have been lost in the execution of the work.

CAPITAL AND INCOME TAXES

The Swedish mercantile marine is not exempt from taxation by either municipal or State authorities. During and after the war it was subject to heavy special taxation, such as tonnage taxes on war valuation, but after repeated applications these were finally abolished. Swedish shipping companies pay the regular taxes on capital and income that are levied on all other classes of business.

OTHER COUNTRIES¹

ARGENTINA

Argentina has a coast line of about 1,800 miles on the Atlantic and has also a system of rivers rising on the eastern slopes of the Andes which furnishes water communication with the interior of the country similar to that of Brazil. The Andes effectively render the ocean routes the economical way to carry freight between the east and west coasts of South America, though the Transandine Railway and the Government Railway of Chile offer a means by which mails may be expedited.

On July 1, 1931, Argentina's national tonnage comprised 299 power-driven vessels of a total gross tonnage of 303,338; sailing vessels increase the total by some 24,642 gross tons in vessels of 100 gross tons and upwards. Included in this tonnage are 22 vessels, totaling 66,828 gross tons, which are owned and operated by the Argentine Government in the coastal trades. Of these, eight are tankers with a total of 37,952 gross tons, which are employed in the transportation of petroleum from the Government fields in Patagonia. The remainder of the Government fleet is employed in the carriage of Government supplies to the oil fields and elsewhere and return cargoes of Patagonian wool.

The Government of Argentina has from time to time adopted measures in the encouragement of national shipping. No particular inducements have been held forth to national shipping and no severe obstacles placed in the way of foreign shipping or of foreign capital in Argentine shipping. In fact, prior to the war 60 per cent of the foreign trade was carried in British vessels. This percentage has been reduced to 50 per cent or less with the reentry of German shipping and increased American shipping in the foreign trade of Argentina. Considerable foreign capital is invested in Argentine shipping ventures.

In 1910 the Argentine Congress passed a law which provided for the payment of bounties to shipping and shipbuilding, and a similar one was adopted in 1918. Besides defining the status of Argentine vessels, the latter enactment restricted the coastal trade, towing, lighterage, and salvage operations to national ships.

The coastwise mails of Argentina are transported free in return for exemption of the mail steamers from registry fees and annual license fees and from various local charges.

Thus far public expenditures on shipping have been restricted principally to public works in the nature of port equipment and port facilities.

¹ Includes countries having relatively small national fleets and new countries where maritime programs have not yet been fully developed or on which only meager official information is at hand. Except where stated otherwise, statistics of the several fleets are from Lloyd's Register of Shipping and relate to vessels of 100 gross tons and upwards.

BRITISH INDIA

British India and Ceylon had, on July 1, 1931, a joint registry of 193 vessels of 203,705 gross tons in vessels of 100 gross tons or more.

India has for a number of years attempted the development of a national merchant marine, primarily to engage in the coasting trade but ultimately to be the foundation for an overseas fleet. Various factors have contributed to the failure of these projects, the principal one being the strongly entrenched position of foreign shipping companies, whose long experience and alliances with export houses give them an advantage over any new competitors for India's shipping business.

The proponents of an Indian merchant marine have strongly protested against the deferred-rebate system, by which the carrier grants a rebate (usually 10 per cent of the freight money) in consideration of the shipper's forwarding all his shipments by that particular carrier.

HISTORY OF INDIAN SHIPPING

In reviewing the early history of Indian navigation Assistant Trade Commissioner Robert C. Cockburn, of Calcutta, points out:

With the visit to India of Vasco da Gama around the Cape of Good Hope in the fifteenth century there opened an era of oceanic navigation on the part of various European countries which then were eager to participate in the eastern trade and were trying to establish settlements in India. After some struggle for supremacy among themselves, especially the Portuguese, the Dutch, and the French, the English were able to establish themselves firmly and become the rulers of India.

The transference of power from the East India Company to the Crown in 1858 no doubt marked the commencement of Britain's lead in India's coasting trade. By 1875 the British India Steam Navigation Co., the Peninsular & Oriental Steam Navigation Co., the City Line, and two other shipping firms were operating in the coasting trade of the country and experimenting with various forms of contract between the shippers and shipowners. To strengthen their own position these companies constituted themselves a conference and in 1900 introduced a system of deferred rebates. [NOTE.—The Indian conference now is composed of the British India Steam Navigation, the Asiatic Steam Navigation, and the Scindia Steam Navigation Cos., the last-named being the only Indian organization of any consequence.]

Between 1877 and 1920, it is reported, approximately 30 Indian shipping companies with an aggregate capital of 12 crores of rupees (\$38,930,000) came into existence, and nearly two-thirds of them had to go into liquidation owing to rate wars and the introduction of deferred rebates by the conference lines. In addition, unusually high rates were charged on the coasting trade of the country as against overseas trade; for example, freight on coal from the United Kingdom to Bombay, a distance of 6,000 miles, was only 24 shillings (\$5.84) per ton whereas on the 2,000 miles of coastal carriage a charge of 30 shillings (\$7.30) per ton was made.

Matters continued in this fashion until the close of the World War, but the inauguration of the reform scheme and the establishment of an Indian Legislative Assembly elected by the people of the country afforded a suitable opportunity for study of the Indian mercantile marine.

PROPOSED ESTABLISHMENT OF MERCHANT MARINE

On January 12, 1922, the Indian Legislative Assembly passed a resolution requesting the appointment of a committee to consider measures for the establishment of a merchant marine. This resolu-

tion was not acted on until February 10, 1923, when the Government of India announced the appointment of a committee, which framed a questionnaire, to be sent to various governmental and commercial bodies, and then adjourned.

The committee's report was published in July, 1924. Its recommendations covered three main points—(a) the training of Indian executive officers and engineers for the mercantile marine, (b) measures for the encouragement of building self-propelled ships in India, and (c) the development of an Indian mercantile marine.

One of the points involved in the third consideration was the closing of the coasting trade of India to ships belonging to foreign nations, with an exception in favor of those foreign states which enjoy any treaty rights in respect of the Indian coasting trade. (Exclusion of foreign shipping, however, does not exclude British-owned shipping, which has hitherto controlled 90 per cent of the coasting trade.) A conference called by the Viceroy of India in January, 1930, to bring about an amicable settlement of this problem failed of its purpose.

PREFERENCES AND RESTRICTIONS

RESERVATION OF THE COASTING TRADE

Under the provisions of the Indian coasting trade act of 1850 the coasting trade of India is open to all comers. "Indian opinion in favor of its repeal is gaining ground," Assistant Trade Commissioner Cockburn reports; "but the situation is such that the present state of affairs may continue for some time longer."

India's coastal trade approximates 219 crores of rupees (\$800,000,000 at the new par rate of \$0.365), imports amounting to 114 crores (\$417,000,000) and exports to 105 crores (\$383,000,000). Less than 12 per cent of the coastal trade and less than 2 per cent of the international trade is being carried in Indian bottoms.

The earnings of the steamship companies in the coasting trade work out at about 10 crores (\$36,500,000) per annum, and in the case of foreign trade the figure is in the neighborhood of 50 crores (\$182,500,000). British shipping interests dominate both trades.

BULGARIA

SUBSIDIZED BULGARIAN AND FOREIGN SERVICES

The Bulgarian merchant marine is represented almost exclusively by the vessels of the Société Bulgare de Navigation Commerciale à Vapeur (Bulgarian Steam Navigation Co.), which on July 1, 1931, owned five vessels of 7,253 gross tons. This company was established in 1892, with the object of providing some independence to Bulgarian exports from foreign shipping. To this end the Government contributed one-half of the capital.² Under the original contract the Government paid the company a subsidy equal

² Report of Vice Consul Samuel Green, Sofia, Feb. 7, 1929.

to 9 per cent of the paid-up capital, or about 180,000 francs (\$34,740), in return for which the company was to perform customary services in the way of carrying mails, reduction in rates on State passengers and freight, etc. Later the subsidy was placed on a mileage basis of 2 to 5 francs (\$0.368 to \$0.965) per mile, and there were paid mileage subsidies amounting to 3,937,000 francs (\$759,841), or an annual average of 303,000 francs (\$58,500), from 1900 to 1912.

For a number of years prior to 1910 the Bulgarian Government paid subsidies to the German Levant Line and the Compagnie Marseillaise de Navigation à Vapeur (Fraissinet et Cie.). Under a contract that went into force on September 1, 1900, the former company received an annual subsidy of 120,000 francs (\$23,160) and agreed to have its steamers call at the Bulgarian ports of Varna and Burgas twice monthly, both on the outbound and on the return voyages. The contract with the Fraissinet line took effect in November, 1902, and provided for an annual subsidy of 50,000 francs (\$9,650), in return for which the company agreed to have its steamers call regularly at Varna and Burgas on their voyages between Marseille and Odessa.

The amounts paid to these two lines from 1902 to 1909, according to a British Government report on ship subsidies, aggregated \$226,575.

PREFERENCES AND RESTRICTIONS

RESERVATION OF THE COASTING TRADE

Black Sea services.—The relative importance of the Black Sea coast ports and ports on the Danube is indicated by traffic returns, which show that during 1926 and 1927 an average of 400,000 tons of merchandise was loaded and discharged in each of the two districts each year. The coasting trade in the Black Sea is reserved for vessels of Bulgarian nationality. Special permits to operate foreign vessels in the coasting trade may be issued by the Ministry of Railways, Posts, and Telegraphs in special cases where no Bulgarian vessels are available for the desired service. Varna and Burgas are the only two ports of commercial importance on the Black Sea which are connected with the interior by railroads, and any exceptions as to coastal restrictions usually are limited to these ports.

Danube services.—On a stretch of about 250 miles on the right bank of the Danube there are five commercially important Bulgarian ports, all served by railway lines. Theoretically the coasting trade between Danube ports is reserved to Bulgarian vessels in the same manner as on the Black Sea, but, due to lack of national tonnage, on the one hand, and to a desire to develop the trade, on the other, foreign vessels are encouraged through a reduction of 50 per cent in vessel fees. Further, Vice Consul Samuel Green, of Sofia, reported, all fees are waived to those companies which undertake to maintain satisfactory regular services to Bulgarian Danube ports without touching the Rumanian ports on the opposite bank. Such arrangements are in force with the Royal Hungarian River & Sea Shipping, of Budapest, Hungary, and with the First Danubian Shipping Co., of Vienna, Austria.

COLOMBIA

By article 15 of decree No. 267 of February 18, 1924, Colombia reserved its coastal trade to national legally licensed vessels.

During the latter part of 1930 a bill was introduced in the Colombian Congress which provided for the promotion of a national shipping company with both Colombian and foreign capital. The bill was approved by the House of Representatives in April, 1931, and by the Senate on June 8, but was returned by the President with a veto message June 19. Congress sustained the President's objections on June 26, and the President signed the modified law on July 13, 1931. As reported by Assistant Trade Commissioner Sylvester J. Roll, Bogota:

PROPOSED NATIONAL SHIPPING COMPANY

The new law providing for the establishment of a national merchant marine authorizes the Government to promote, by means of contracts, the formation, organization, and development of a national merchant marine company, and to enlist the cooperation of the National Coffee Federation and other organizations. For the fulfillment of the initial contract the Government may give preference, all things being equal, to the national merchant-marine company which fulfilling the provisions of this law, has provided or provides service during a period of not less than one year between Colombian ports and the port of New York and through whose initiative and effort the foreign commerce of the country has derived benefit. The promotion and encouragement of more than one national merchant-marine company is left to the judgment of the Government, depending upon the convenience thereof from the fiscal, economic, and commercial point of view.

In order that the company may be regarded as truly national it is stipulated: That it be nationalized in Colombia; that it have its home office in one of the cities of the country; that it be organized in accordance with Colombian laws; that at least 60 per cent of its capital will belong to Colombian entities or citizens. For this purpose the shares of the Colombian shareholders must be registered in their names. The national company which is organized in accordance with this law must have an authorized capital of not less than 2,500,000 gold pesos, of which not less than 50 per cent must be paid in at the time of the contract with the Government. The shares of the company may not have a value of more than 10 gold pesos each, thus placing them within the reach of small investors. The company in question will offer in the departments of the Republic a minimum of 40 per cent of its shares and reserve 20 per cent for the option of the National Coffee Federation.

The company which makes a contract with the Government in accordance with this law must undertake a number of obligations, among which are the following: To transport first-class mail free of charge; to establish protectionary freight rates for coffee and other articles of national production; to place its vessels at the disposition of the Government in case of international war or internal conflict; to send and support in foreign schools or naval academies at least four Colombian students in each year of the first five years of the company's existence and at least two students each year during the remaining years of the life of the contract; that at least one-fifth of the personnel of each national vessel will be Colombians during the first three years, one-third from the third to the sixth year, and two-thirds from the sixth year on; to equip vessels in foreign service with refrigeration for the transportation of fruit.

The Government on its part engages to do as follows: To grant to the company which contracts, in accordance with the terms of this law, in the form of subsidy, a sum equivalent to the total of the fees which are paid for the passage of its boats through the Panama Canal; the amount of the subsidy which the Government pays to the company will in no case be greater than the Government receives for the maximum tonnage tax (which, in accordance with this law, is destined for the development of the national merchant marine), nor will it exceed 150,000 pesos per year; to cede to the contracting company, free

of charge, the use of national land, in the maritime ports of the Republic, which the company needs for the establishment of its fueling stations, piers for its ships, and buildings for its offices; to give preference, in equal circumstances, to the contracting company for the transport of official cargo imported or exported.

The contract made by the Government will run for 15 years and may be extended at the wish of the Government. The Minister of Industries will include in the expense of each fiscal year the amount necessary for the fulfillment of this law, and when this amount is not included in the budget or is not sufficient, the Government is authorized to open credits which the fulfillment of the law demands.

This new law repeals Law No. 117 of 1919 and the provisions which are contrary to it in the extended and revised Law No. 59 of 1914.

COSTA RICA

Under the fiscal code of 1915 coastal traffic in Costa Rica is restricted to national vessels, and if arriving loaded with cargo from abroad even these may not engage in it until they have completed discharge.³ Both national and foreign vessels after completion of discharge at ports of destination may proceed to any other point on the coast upon permission from the collector of customs.

National vessels engaged in the coasting trade are exempt from the payment of tonnage and lighthouse dues, and in sailing from one coast point to another pay \$0.125, the value of the stamped paper on which clearance is requested.

In addition to the calling at Puntarenas by ships of the Panama Mail Steamship Co., the Hamburg-American and North German Lloyd Lines contracted with the Costa Rican Government in 1930 for regular services to Puntarenas, including steamers of the Kosmos and Roland Lines.⁴ The contract was for two years, and the service was to be considered a mail service, the contract vessels being exempt from the payment of all port charges, including consular charges for visaing ship's manifest. Government freight is carried at a 10 per cent rebate, mail to and from Costa Rica is carried free, and free passage is provided for the President, cabinet ministers, diplomatic officers, consuls, and vice consuls.

CUBA

On July 1, 1931, Cuba's merchant fleet consisted of 59 vessels of 42,721 gross tons in ships of 100 gross tons and upwards, of which 2 are of more than 2,000 gross tons.

Articles 166 and 177 of the customs regulations of Cuba granted the right to vessels of the United States to engage in the coastwise transportation of merchandise of Cuba, according to a report by Acting Commercial Attaché O. R. Strackbein, Habana. This privilege, however, was abrogated by a law of July 31, 1928, published in the *Gaceta Oficial* of August 4, 1928, which restricts coastwise traffic between the ports of the Republic to Cuban vessels and makes no provision for exemption in favor of foreign companies.

The establishment of a Cuban merchant marine is officially under consideration, Commercial Attaché Frederick Todd, Habana, re-

³ Report of American Consul Edward E. Caffrey, San Jose, May 3, 1929.

⁴ Report of Consul Edward E. Caffrey, San Jose, Oct. 28, 1930.

ported on April 5, 1930, a special subdivision of the General Commission of Economic Defense having been set up a year or so ago to study the subject.

A decree (No. 2003) establishing a nautical school under the Secretary of War and Marine and outlining broadly the course of study, salaries of teaching staff, etc., appeared in the *Gaceta Oficial* of December 20, 1929, and one dealing with the education of officers for the merchant marine, requirements for pilots, captains, etc., in the issue for March 26, 1930.

ESTONIA

Estonia, formerly a Russian Province, declared its independence on February 24, 1918, and adopted a constitution on June 15, 1920. Estonia is bounded by the Union of Soviet Socialist Republics on the east, by Latvia on the south, the Gulf of Finland on the north, and the Baltic Sea and Gulf of Riga on the west. It has an area of about 18,000 square miles and a coast line 725 miles in length.

The country is mainly agricultural, approximately 2,500,000 acres being under cultivation and affording occupation for about 70 per cent of the population of 1,116,500 (1929).

Tallinn (formerly Reval), the chief port, is on the Gulf of Finland, and forms the center of the Estonian shipping industry. The harbor is not ice free, although it is accessible without ice breakers during much of the winter for larger ships.

The State owns 1,100 miles of railways and controls a bank for long-term credits. The new monetary unit is the Estonian kroon, equal to the Swedish krona of a par value of \$0.268.

THE ESTONIAN COMMERCIAL FLEET

GROWTH OF THE MERCHANT MARINE

The Estonian merchant marine, according to reports on the subject made by Commercial Attaché Lee C. Morse and Consul Harry E. Carlson, comprised 61,415 gross tons on January 1, 1927, 65,290 gross tons on January 1, 1928, and 74,012 gross tons on January 1, 1929. These totals include more than 400 vessels, hence the average size is quite small despite the addition of several ocean-going ships during the past few years. Lloyd's Register, covering only vessels of 100 gross tons and upwards, shows the following development for the period 1921-1931:

TABLE 141.—GROWTH OF THE ESTONIAN COMMERCIAL FLEET

July 1—	Total fleet †	Power-driven vessels †	Sailing vessels †	July 1—	Total fleet †	Power-driven vessels †	Sailing vessels †
	Gross tons	Gross tons	Gross tons		Gross tons	Gross tons	Gross tons
1921.....	41, 183	29, 779	11, 404	1927.....	44, 662	33, 340	11, 322
1922.....	45, 259	32, 149	13, 110	1928.....	52, 630	42, 476	10, 154
1923.....	49, 403	32, 208	17, 195	1929.....	60, 383	49, 153	11, 230
1924.....	45, 897	34, 164	11, 733	1930.....	72, 089	60, 982	11, 107
1925.....	46, 277	34, 641	11, 636	1931.....	93, 397	82, 089	11, 308
1926.....	49, 025	37, 533	11, 492				

† Vessels of 100 gross tons and upwards.

Source: Lloyd's Register of Shipping.

EMPLOYMENT OF THE FLEET

The share of Estonia's ocean traffic carried by national vessels as compared with the leading competitors is shown in Table 142.

TABLE 142.—ESTONIA'S OCEAN SHIPPING, BY NATIONALITY OF CARRYING VESSEL, 1925-1930

Nationality of carrying ship	1925	1926	1927	1928	1929	1930
FREIGHT TRAFFIC						
	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>
German.....	44.5	40.5	34.7	37.1	40.2	32.4
Estonian.....	20.4	23.2	29.9	33.4	32.5	31.2
Finnish.....	5.4	4.9	4.8	4.7	3.7	3.6
English.....	8.4	7.3	8.4	5.9	6.4	6.8
PASSENGER TRAFFIC						
German.....	21.8	18.7	16.4	19.4	15.3	18.5
Estonian.....	21.4	22.6	25.4	17.0	12.9	12.8
Finnish.....	54.0	56.8	49.5	55.1	63.1	60.1
English.....	2.4	.6	6.3	7.3	8.1	6.4

In 1930 the total freight movement between Estonia and foreign countries and the share of Estonian shipping in each instance were as follows:

TABLE 143.—CARGO MOVEMENT BETWEEN ESTONIA AND FOREIGN COUNTRIES, 1930

Movement between Estonia and—	Total cargo	Share carried in Estonian vessels	Movement between Estonia and—	Total cargo	Share carried in Estonian vessels
	<i>Metric tons</i>	<i>Per cent</i>		<i>Metric tons</i>	<i>Per cent</i>
Great Britain.....	287,894	49.0	Denmark.....	15,263	20.3
Germany.....	161,426	2.7	Latvia.....	17,744	49.9
Finland.....	39,911	26.3	Soviet Russia.....	36,145	—
Netherlands.....	39,976	53.4	Other countries.....	20,029	16.8
Sweden.....	31,716	71.3			

Source: Central Statistical Bureau of Estonia, Monthly Statistics, 1931, p. 464.

According to a report from Edward Hunt, of the American Consulate staff at Tallinn, the total estimated earnings during 1930 of Estonian mercantile vessels maintaining foreign connections were: For steamers, 8,340,000 kroons (\$2,235,120 at par); for motor vessels and motor schooners, 540,000 kroons (\$144,720); sailing vessels, 360,000 kroons (\$96,480); estimated total, 9,240,000 kroons (\$2,476,320).

Of these total earnings it is believed that approximately 40 per cent, or about 3,700,000 kroons, remains in Estonia as the so-called invisible export returns.

NEW SHIPPING COMPANY

On February 12, 1929, a new company, provisionally called the Estonian-British Shipping Line, was registered at the Estonian Ministry of the Interior. The purpose of the proposed service was stated to be the establishment of direct liner connections between Estonian and English ports by vessels equipped with cold storage in order to

facilitate the export of Estonian agricultural products. The capital of the company was fixed at 400,000 kroons (\$107,200). On March 2, 1929, the Estonian Treasury acquired shares in the undertaking amounting to 136,000 kroons (\$36,500), representing 136 of the 400 shares at 1,000 kroons each.

SHIPBUILDING INDUSTRY—NAVIGATION BOUNTIES

Shipbuilding.—Shipbuilding in Estonia is of little importance as an active industry. Tallinn is the site of the Russo-Baltic Shipbuilding & Engineering Co. (Ltd.), at present under the control of the Estonian Government or the National Mortgage Bank. This plant was erected in 1912-1914 and is one of two works built by the Russo-Baltic Shipbuilding & Engineering Co., the other yard being on the Black Sea. Some 30,000,000 Russian rubles and 4,000,000 Estonian kroons have been invested in the plant, which during the war employed about 8,000 workmen.

Bounties.—On March 19, 1929, a bill was passed permitting the Government to grant subsidies, not to exceed 200,000 kroons (\$53,600) annually, for five years to Estonian shipping lines. Consul Harry E. Carlson reported from Tallinn July 12, 1929, that grants of 10,000 kroons (\$2,680) to the Tallinn-Stockholm Line and 20,000 kroons (\$5,360) to the Parnu-Kuresaar-Riga-Helsingfors Line had been made.

ESTONIAN MARITIME CREDIT

GOVERNMENT LOANS AND GUARANTIES

The law of March 19, 1929, just referred to, carried also a loan provision by which the Government is authorized to guarantee funds for the construction or acquisition of ships for the Estonian commercial fleet to an extent of 75 per cent of their value, but for a total amount not to exceed 1,800,000 kroons (\$482,400). Trade Commissioner F. C. Sommer reported from Riga September 9, 1929, that 600,000 kroons (\$160,800) had been allotted to the Estonian Shipping Department for this purpose.

Another form of aid extended by the Estonian Government to shipping is the guaranteeing of loans through at least one of the banks—the National Mortgage Bank of Estonia. Under the Russian régime there were several long-term credit banks specializing in land mortgages. Soon after the beginning of the World War these institutions suspended operations; and after Estonian independence of 1918, agriculture had to rely on state aid, and liberal amounts have been included in the budget for the restoration of this important branch of the economic system. One-half of the capital of the Land Bank of Estonia was subscribed by the state. Loans are made against real estate up to 60 per cent of the assessed value of the property.

In order that credits might be extended to vessels a law on maritime credits was passed on June 13, 1924 (S. A. No. 77/78), which gave the character of real estate to all ships of more than 60 cubic meters (about 20 gross tons) displacement. Such vessels are inscribed in a special maritime credit register and may be mortgaged like real estate.

NATIONAL SHIP-MORTGAGE BANK

On June 15, 1927, an agreement was signed covering a British and United States loan known as the "Republic of Estonia (banking and currency reform) 7 per cent loan, 1927." The British portion of the loan was £700,000 (\$3,406,550), of which £200,000 (\$973,300) was placed in the Netherlands in the form of sterling bonds; and the United States portion was \$4,000,000. The loan is for 40 years at 7 per cent and the total yield was about \$6,600,000. These funds were divided into two portions, namely £1,000,000 (\$4,866,500) to be allocated to the Eesti Bank in payment of a corresponding value of long-term loans to be transferred to a new mortgage bank to be created for the purpose, and £350,000 (\$1,703,275) to be given to that institution as capital.

The new bank, the National Mortgage Bank of Estonia, commenced operations on January 1, 1928. Article 34 of the bank's statutes, under the general head of "loans against pledging of ships," reads:

ART. 34. The bank grants loans against mortgages of Estonian ships effected in accordance with the provisions of the law for registration of ships. In granting such loans the provisions of these statutes regarding loans secured on real property shall apply, with the following modifications and additions:

(1) The amount of the loan shall not exceed 50 per cent of the assessed value in the case of steel ships and 40 per cent in that of wooden ships;

(2) The duration of the loan shall not exceed 15 years for steel ships and 10 years for wooden ships;

(3) The pledged ship must be insured against accident or loss and the insurance policy or covering certificate handed over to the bank. The debtor must notify the bank in case of damage; and

(4) When applying for the loan there shall be presented a copy of the entry in the registration office regarding the vessel, information as to its price, and any other documents specified by the board of directors of the bank.⁶

No information has been received as to amounts of loans granted for the construction or purchase of vessels, but late in 1929 the shipping section of the Tallinn Chamber of Trade and Industry and the Estonian Shipowners Association requested the Government to grant credits of \$160,000 at 6 per cent for ship construction, provided an equal amount of private capital was raised.

The American consulate at Tallinn reported on April 22, 1931, that Government and other loans granted to Estonian shipping up to that time consisted of: Government loans at rates of 6 to 7 per cent per annum, about 600,000 kroons (\$160,800); Government loans at 9 per cent per annum, about 400,000 kroons (\$107,200); loans contracted from private banks and from abroad, about 600,000 kroons (\$160,800); estimated total, 1,600,000 kroons (\$428,800).

PREFERENCES AND RESTRICTIONS

RESERVATION OF THE COASTING TRADE

Shipping in Estonia is governed by the imperial Russian merchant law, published in the Russian Law Code, Volume XI, part 2. In order to adapt the provisions of this law to the somewhat different conditions of Estonia, Consul Harry E. Carlson, Tallinn, explains, certain amendments and regulations have been passed by the Estonian State Assembly (Riigikogu) during the 10 years of Es-

⁶ Publications of the League of Nations. II, Economic and Financial, 1928, II, 42, p. 12.

tonia's independence. Paragraph 165 of the imperial Russian merchant law reads:

Coastwise shipping—that is, transportation of merchandise and passengers between Russian ports situated on one of several seas—is the privilege of Russian subjects solely and of vessels sailing under the Russian flag.

In the interpretation of this law the word "Russian" is replaced by the word "Estonian" and the word "several" is omitted, there being only one sea (Baltic) in Estonian territory.

The main Estonian law to supplement the above provision is that governing the ownership and registration of ships. This law was passed by the Estonian Riigikogu in 1919 and is contained in the Official State Advertiser (Rügi Teataja) No. 18 of March 27, 1919. The most important paragraphs of this law are:

PARAGRAPH 1. Only vessels of Estonian registry have the right to fly the Estonian flag.

PAR. 2 The following vessels have the privilege to be entered in the Estonian registry:

(a) Vessels which are owned by one or several Estonian citizens;

(b) Vessels which are owned by an organization incorporated under the Estonian laws in which the management is composed exclusively of Estonian citizens the part interest of whom in the share capital is not less than 50 per cent.

Enforcement of the shipping laws is entrusted to the inspector of navigation attached to the Estonian Marine Administration.

Under the laws in force in Estonia no foreign ships are allowed to transport goods or passengers between Estonian ports. It often happens that foreign vessels call at several Estonian ports during a trip, but strict control is exercised at all points of discharge to make sure that no Estonian goods are unloaded from the ship.

FINLAND

Finland, the largest of the Baltic States, formerly an autonomous grand duchy of the Russian Empire, proclaimed its independence on December 6, 1917. An area of 150,000 square miles, bounded on the north by Norway, on the east by Russia, on the west by the Gulf of Bothnia, and on the south by the Gulf of Finland, supports a population of nearly 3,500,000, principally through lumbering, wood products, paper, and agriculture. The combined exports of paper and wood pulp in 1930 were about 550,000 short tons, valued at 1,840,153,081 markkaa (\$46,371,858 at the stabilized rate of \$0.0252), representing 34.4 per cent of the total value of Finnish exports.*

More than half the Baltic coast of Russia lay within the grand duchy of Finland; and the Finns, one of the oldest maritime races of northern Europe, owned and manned a large part of the Russian merchant marine and made up a large part of the crews of the Russian Navy.

COMMERCIAL FLEET—PROPOSED SUBSIDIES

Merchant marine.—The commercial fleet of Finland on July 1, 1931, had 312,097 gross tons in vessels of 100 tons and upwards.

*Official Statistics of Finland. Foreign Trade, 1930, pp. 15, 61.

There is a power-driven tonnage of 244,357 tons. Forty-one vessels are of 2,000 gross tons or more, and 44 vessels are between 1,000 and 2,000 gross tons.

The development of the commercial fleet of Finland from 1919 is shown in the following table:

TABLE 144.—GROWTH OF THE FINNISH COMMERCIAL FLEET

July 1—	Total fleet ¹	Power-driven vessels ¹	Sailing vessels ¹	July 1—	Total fleet ¹	Power-driven vessels ¹	Sailing ¹ vessels
	<i>Gross tons</i>	<i>Gross tons</i>	<i>Gross tons</i>		<i>Gross tons</i>	<i>Gross tons</i>	<i>Gross tons</i>
1919.....	180,962	73,593	107,369	1926.....	232,792	148,028	84,764
1920.....	166,689	82,295	84,394	1927.....	241,355	166,076	75,279
1921.....	198,352	106,255	92,097	1928.....	280,581	213,991	66,590
1922.....	213,671	122,954	90,717	1929.....	298,323	231,448	66,875
1923.....	200,254	117,799	82,455	1930.....	313,143	243,112	70,031
1924.....	207,932	122,641	85,311	1931.....	312,097	244,357	67,740
1925.....	210,829	128,894	81,935				

¹ Vessels of 100 gross tons and upwards.

Source: Lloyd's Register of Shipping.

The total earnings of the Finnish commercial fleet for 1929, including barges and sailing vessels, were 140,333,000 markkaa (\$3,536,400) for services between Finnish ports, 299,613,000 markkaa (\$7,550,200) for services between Finnish and foreign ports, and 99,317,000 markkaa (\$2,502,800) for services between foreign ports, a total of 539,263,000 markkaa (\$13,589,400).⁷

Proposed subsidies.—Two Finnish shipping lines have jointly petitioned the Ministry of Commerce and Industry for a State grant of 6,000,000 markkaa (\$151,000) for the year 1931, "under the same conditions as subsidies have been granted in the past."⁸

FINNISH MARITIME CREDIT

GOVERNMENT LOAN FUND

The following statements are taken from an article appearing in the Bank of Finland Monthly Bulletin for May, 1928. The article was prepared by K. W. Hoppu, head of the statistical and shipping register office of the Board of Navigation of Finland.

LAW OF MARCH 29, 1928

The Government's proposals on the subject [loans to shipping] were completed and presented to the Diet on October 7, 1927, and passed on March 29, 1928. As passed, the law for a Government loan fund for the development of the mercantile marine differs in certain respects from the Government proposals. According to the proposals the size of the fund was to be 100,000,000 markkaa (\$2,520,000), to be accumulated over the five years 1929-1933, by yearly transfers of 20,000,000 markkaa (\$504,000). The Diet left the ultimate size of the fund open and dependent on appropriations made in connection with the budgets. As regards the rate of interest the standpoint taken by the Diet also differed from that of the Government. The rate suggested in the Government proposals was 6 per cent, but in certain circumstances lower rates down to 4 per cent were to be applied. The Diet fixed the rate of interest at 6 per

⁷ *Annuaire Statistique de Finlande*, 1930, p. 162.

⁸ Report from the office of the commercial attaché at Helsingfors, Mar. 5, 1930.

cent; should, however, the actual rate of interest on long-term Government loans fall below 6 per cent, the Government was empowered to lower the rate of interest on the loans to a similar level.

The purpose of the loan fund is to assist such Finnish shipowners as are able in an effective manner to further the development of the Finnish mercantile marine by providing them with loans to be used in obtaining suitable vessels. Loans are to be granted in general up to half the value of a vessel, but where the benefit to the country is exceptionally great a loan can be increased to two-thirds of a vessel's value. The maximum term of a loan is eight years, and loans are to be granted in respect of vessels not more than 5 years old which have not been more than one year in the possession of a Finnish shipowner. The conditions restricting the age of vessels eligible for loans to the low limit of five years shows the purpose of the loan to be to assist in securing perfectly up-to-date tonnage for the country's mercantile marine.

Conditions for granting loans

According to the law passed by the Diet, the conditions to be applied to loans from the fund are to be established by statute. In the scheme attached to the Government proposals the following procedure was proposed: Applications for loans to be lodged with the Board of Navigation before the end of November; the Board of Navigation to pass the applications on to the Ministry of Trade and Industry (the ministry empowered to grant the loans and to decide as to security) during December, together with its own remarks.

As security, a valid bank guaranty or a first mortgage on the vessel procured and an adequate insurance policy were to be deemed sufficient. Repayment of the loan was to commence in the third year and to be made in installments, the extent of which was to depend on the age and seaworthiness of the vessel, though in each case the loan would have to be fully repaid before the expiration of the eighth year.

Loans to an amount exceeding one-half of a vessel's value may be granted only in the case of new vessels, or vessels fully equal to new, which have been specially built and strengthened for winter traffic or are intended for regular traffic on lines of great economic importance for the country.

If a vessel can be built in this country on as favorable terms and as speedily as abroad, a loan will be granted only on condition that the work is intrusted to a Finnish shipyard.

Additional provisions

According to the scheme added to the Government proposals the following conditions were attached to loans:

(1) Within three months of the date on which a loan is granted the security demanded by the Ministry of Trade and Industry must be deposited under penalty of losing the right to draw the amount of the loan, unless the Ministry of Trade and Industry has agreed to prolong the period during which security is to be deposited;

(2) The stipulated interest and amortization payments are to be paid to the treasury before the end of January of the following year; in case of default immediate repayment of the loan may be demanded without previous notice and interest will be charged the borrower on the unpaid interest and amortization payment at a rate corresponding to the highest discount rate of the Bank of Finland (not, however, less than 6 per cent), such interest to run from the first day of January to the date on which payment is made;

(3) The borrower shall furnish the Board of Navigation each year before the end of June with evidence that the vessel is still in a seaworthy condition; and, immediately the repairs necessitated in the case of average have been carried out, with evidence that the value of the vessel has not declined by 50 per cent, or, in case the original loan amounted to more than half the vessel's value, below two-thirds of the original value of the vessel;

(4) A detailed statement showing the extent to which the borrower has made use of his vessel and with what results shall be furnished the Board of Navigation each year before the end of December;

(5) The Ministry of Trade and Industry has the right to demand repayment of a loan at a month's notice if the statement mentioned in the previous clause shows the business of the borrower to have declined materially during the

period of the loan or if during the period stated the qualifications of the borrower for a successful exploitation of his vessel have materially declined; and

(6) A loan must be repaid immediately if the vessel on which it was raised is sold abroad.

LATVIA

Latvia, a former Russian province, declared its independence on November 18, 1918. The Republic is bounded on the east by the Union of Soviet Socialist Republics, on the north by Estonia and the Gulf of Riga, on the west by the Baltic Sea, and on the south by Lithuania and Poland. With an area of 25,000 square miles it is about the same size as West Virginia. Agricultural products, lumber, and wood products such as paper and matches are the most important.

The Gulf of Riga and the Baltic Sea give the nation a seacoast of 340 miles, and the principal port, Riga, located on the north of the Gulf of Riga, is strategically well placed for the convergence of the main Russian railway lines.

THE LATVIAN COMMERCIAL FLEET

The Latvian merchant marine has increased rapidly during the period of the Republic. In a report of November 26, 1929, Acting Commercial Attaché F. C. Sommer states that up to July 31, 1929, the national registry included 144 vessels of 170,000 gross tons. The development of the fleet is shown in Table 145.

TABLE 145.—GROWTH OF THE LATVIAN COMMERCIAL FLEET¹

Year	Total fleet		Year	Total fleet	
	Number of vessels	Gross tons		Number of vessels	Gross tons
1920.....	45	11, 146	1925.....	100	52, 267
1921.....	58	18, 664	1926.....	117	66, 642
1922.....	80	34, 021	1927.....	122	86, 187
1923.....	88	33, 327	1928.....	119	105, 081
1924.....	96	48, 423	1929.....	146	176, 932

¹ Sources: Reports of Acting Commercial Attaché F. C. Sommer, Riga, Nov. 26, 1929, and Acting Commercial Attaché Basil D. Dahl, Riga, Mar. 6, 1930.

The development of the merchant marine of Latvia is notable on account of the relatively large size of the vessel equipment. In the list of Latvian merchant vessels up to January 1, 1929, published by the Ministry of Finance, there are six ship-owning companies that own from five to seven vessels, each ranging from 3,800 gross tons to a minimum of 1,340 gross tons, with an average gross tonnage of about 2,300.

LATVIAN MARITIME CREDIT

Prior to the establishment of the State Mortgage Bank the Government advanced the following sums for building, repairing, and acquiring vessels abroad: 1919—800 lats (\$154 at the par rate of \$0.193); 1920—47,452 lats (\$9,158); 1921—187,064 lats (\$36,103);

1922—232,961 lats (\$44,962); 1923—742,100 lats. (\$143,225); 1924—373,660 lats (\$72,117); a total of 1,584,037 lats (\$305,719).⁹

The State Mortgage Bank was established September 22, 1924, and took over the Government loans, which had then reached a total of 1,700,000 lats (\$328,100).¹⁰ In 1926 the bank loaned 402,500 lats (\$77,683), and by January 1, 1930, a total credit of 2,600,000 lats (\$501,800) had been extended by the State and the bank.¹¹

The interest rate on shipping loans was 6½ per cent in 1930.

Pay rolls of Latvian ships are stated to be about 50 per cent less than for a British vessel; this is said to result in an economy of 6 to 10 per cent of the value of the vessel annually, but in view of the higher interest rates in Latvia this advantage is reduced to 5 per cent.

PREFERENCES AND RESTRICTIONS

RESERVATION OF THE COASTING TRADE

Commercial Attaché Lee C. Morse, Riga, under date of May 23, 1929, submitted the following translation and report on the coastal laws of Latvia:

(1) Latvian and foreign citizens are permitted to carry on the trade of transporting goods and passengers with seagoing vessels. However, the provisions of article 2 hereunder must be observed.

(2) Only vessels belonging to Latvian citizens or companies are permitted to operate in the coastal trade and on the inland waterways.

If a foreigner inherits a vessel, or part interest in a vessel, from a Latvian citizen, this vessel loses its right to carry on shipping in the Latvian coastwise trade or on the inland waterways of Latvia after the expiration of one year from the date of the testator's death.

(3) The enactment of the present law cancels articles 164 and 165 of Volume II, Section I, of the Commercial Code.

From the above it is apparent that Latvia restricts coastwise trade to vessels entirely owned by Latvian citizens.

The coastal trade of Latvia is comparatively small. Official statistics secured from the Marine Department show that out of total entrances of 5,162 vessels of 2,058,788 net tons and total clearances of 5,161 vessels of 2,053,295 net tons at Latvian ports during 1929, only 1,321 Latvian vessels of 185,998 net tons entered and 1,336 vessels of 188,224 net tons cleared from Latvian ports in coastal traffic. These figures do not include vessels under 20 tons gross.

EXEMPTION FROM FISCAL CHARGES

IMPORT DUTIES

Under date of June 25, 1930, Commercial Attaché Morse reported:

At a conference of the Latvian Customs Department held on June 13, 1930, it was decided, in order to aid the local shipbuilding industry, to allow certain materials and equipment required for shipbuilding purposes to enter Latvia duty free. According to this decision, in addition to boilers and machinery, parts of same as well as materials for the construction of boilers, dredges, lighters, pontoons, and other watercraft under the control of the Latvian Marine Department can enter free of duty.

⁹ Report by Acting Commercial Attaché C. J. Mayer, Riga, Feb. 10, 1925.

¹⁰ The Latvian Economist for 1928, p. 51.

¹¹ Report of Acting Commercial Attaché Basil D. Dahl.

LITHUANIA

Lithuania, which at one time reached from the Baltic to the Black Sea, was united with Poland in the sixteenth century and was divided, along with Poland, between Prussia and Russia in the several partitions at the end of the eighteenth century.

The natural seaport of both independent Lithuania and independent Poland is Memel (Klaipeda), situated at approximately the middle point of the 45-mile coast line of Lithuania near the outlet into the Baltic of the Niemen River, down which the timber and grain of both countries reach the sea. The Niemen was made an international river by the treaty of Versailles, but the disposition of the seaport was not settled until early in 1923, under conditions which permit its joint use by Lithuania and Poland. The agricultural nature of Lithuania is not likely to be changed by the possession of a seaport.

PROPOSED GOVERNMENT PURCHASE OF SHIPS

The Government of Lithuania feels that the absence of a national merchant marine is incompatible with the development of the country's prestige, and that therefore it would be desirable to place a few ships in service under the Lithuanian flag, even should Government subsidy prove necessary. In 1924 the British company, United Baltic Corporation (Ltd.), established a weekly freight and passenger service between London and Memel via Libau or Danzig. This action stimulated Lithuanian sentiment for a national fleet, despite the declaration of economists at the time that Lithuania did not have the necessary volume of trade to maintain its own ships on the Baltic and North Seas. Because of increased exports to Great Britain in 1929, however, the issue of a national mercantile marine was revived, and in November, 1930, a special committee representing certain Lithuanian export associations, a national seamen's society, and the Ministry of Finance of the Lithuanian Government was created to consider anew the purchase of ships.

According to dispatches in the Lithuanian press, the British firm of United Baltic Corporation (Ltd.) offered the Lithuanian Government its two vessels, *Baltannic* and *Baltriger*, which could be placed in the London-Memel service under the Lithuanian flag. The sum said to be involved in the proposed deal is 4,000,000 lits (\$400,000). The United Baltic Corporation suggested that the Lithuanian Government create a joint-stock company to effect the purchase and operation of these ships. It is understood that the price of 4,000,000 lits was not final and that the United Baltic Corporation was willing to accept an equity in the company which would be formed. It is stated that liberal credit will be extended at 6 per cent with no specific time limitations.

It is understood that temporary abandonment of the plan was caused by a contract recently concluded in London by representatives of the Joint-Stock Co. "Maistas" and the United Baltic Corporation (Ltd.) concerning the transportation of Lithuanian pork products from Memel to London. The Joint-Stock Co. "Maistas" of Kovno and its subsidiary, Lietuvos Eksportas (Lithuanian Export),

in Memel control almost the entire pork-products exports of Lithuania, and the establishment of a mercantile service under Lithuanian registry was projected, in the first place, as a means of fostering the export activities of these two slaughter and packing enterprises. With the conclusion of a contract with a foreign firm, which guarantees regular transportation to the British Isles of Lithuanian meat products, the question of a Lithuanian merchant marine loses its importance, although developments or general conditions in the market may change the situation.

PREFERENCES AND RESTRICTIONS

RESERVATION OF THE COASTING TRADE

Coastal trade within Lithuanian territory is limited to small cargoes of bulk articles, such as cut lumber and logs, between the town of Russ on the delta of the Niemen River and the port of Memel. Domestic shipping on the interior waterways is practically confined to barge shipping on the Niemen between Memel and Kovno.

Vice Consul Paul J. Reveley, of Kovno, reported, under date of July 21, 1929, that coasting trade in the territorial waters of Lithuania is restricted to vessels of Lithuanian registry, with one exception. The Lithuanian-German commercial treaty, ratifications of which were exchanged in February, 1929, provides that German vessels may engage in coastal shipping in Lithuanian territorial waters and, reciprocally, that Lithuanian vessels may engage in German coastal trade.

There are no Lithuanian laws which regulate the very limited amount of coastwise shipping. Lithuanian officials do not consider Russ a seaport, as shipping at this point and elsewhere on the Niemen is governed by the inland shipping regulations. The local port regulations of Memel contain no reference to Lithuanian coastwise shipping.

MEXICO

The commercial fleet under the Mexican flag consists of some 34 vessels of about 41,820 gross tons, comprising power-driven vessels of 100 gross tons and upwards. Seven vessels of about 15,000 gross tons are owned by the Government; 13 vessels are of more than 1,000 gross tons.

Until recently the Mexican Government has offered encouragement in the Mexican foreign trade to vessels of foreign nationality, while national shipping has been promoted primarily along the lines of developing coastal services. However, on November 13, 1930, a general subsidy law was enacted which provided for various types of assistance to ships under Mexican registry.

NAVIGATION BOUNTIES

During the first 10 years of the present century the Mexican Government expended from \$70,000 to \$270,000 (United States currency) annually in the maintenance of foreign-trade services between Mexico and other countries. The principal beneficiaries of these expenditures were the Pacific Mail Steamship Co., for services between

the Pacific coasts of Mexico and Central America and the United States; the Toyo Kisen Kaisha, for services between Pacific coast ports of Mexico and Japan; the Canadian-Mexican Atlantic Co., for services between the Gulf ports of Mexico and the Atlantic ports of Canada; and the Southern Steamship & Importing Co., for services between Frontera and Galveston. A small sum was paid to Mexican companies for services on Mexican rivers.

LAW OF NOVEMBER 13, 1930

On November 13, 1930, a law was promulgated providing for subsidies to Mexican vessels in various categories. This law authorizes the Department of Communications and Public Works to grant subsidies to owners of Mexican vessels through contracts for a term not exceeding five years. The eligible vessels are classified into four groups—seagoing vessels with passenger accommodation, seagoing cargo vessels, vessels in the coastwise trade, and coastal vessels. The several vessel specifications and authorized subsidies are given below.

TABLE 146.—VESSEL SPECIFICATIONS AND SUBSIDIES UNDER LAW OF NOVEMBER 13, 1930

	Seagoing vessels with passenger accommodations	Seagoing cargo vessels	Vessels in coastwise trade	Vessels in coastal traffic
Minimum size.....gross tons.....	2, 000	2, 000	1, 000-2, 000	100-500
Minimum speed.....knots.....	12	7	10	-----
Fixed or free schedule.....	Fixed.	Fixed.	Fixed.	(¹)
Required passenger accommodation.....	60	Exampt.	40	15
Subsidy ² :				
Per ton export.....	\$0. 4985			
Per ton import.....	\$0. 2492			
Per gross ton, annually.....		\$0. 4985		
Per ton domestic freight.....	\$0. 1246			
Per gross ton per 1,000 miles.....			\$0. 2492	\$0. 4985
Per gross ton per 1,000 miles during first five years.....				2. 49

¹ Calls at points not included by other classes.

² Stated in United States currency after conversion at \$0.4985 to the peso.

Owners of vessels receiving subsidies under these schedules undertake to carry, free of charge, mails up to 5 per cent of the net tonnage of the carrying vessel. Owners also undertake to give preference, up to 10 per cent of vessel space, for Government freight and to carry such freight at 50 per cent reduction off the regular rates and also to carry Army and Navy officers and a number of troops at 50 per cent reduction off the regular passenger tariffs. (Art. 19.)

SPECIAL PRIVILEGES TO SUBSIDIZED VESSELS

Owners of subsidized vessels are granted a number of special privileges, the most important being: Dispatch preference in entrance and clearance, even at night and on holidays; preference in pier space; loading and unloading at the same time, including nights and holidays; and vessels in coastwise traffic may moor and load or unload cargo at once upon arrival without previous inspection if they have a clean bill of health. (Art. 21.)

During the first year the law is in effect the Department of Communications and Public Works may pay in advance to owners of contract vessels which are to be subsidized according to the amount of freight carried the sum of 5 pesos (\$2.49) for each gross ton of the vessel, subject to surety or performance bond by the owner. (Art. 17.)

PREFERENCES AND RESTRICTIONS

RESERVATION OF THE COASTING TRADE

Mexico reserves its coastwise trade to national vessels except in certain specific cases. The National Navigation Lines (Lineas Nacionales de Navegación) was created for the purpose of stimulating and facilitating national services in coastwise shipping. By decree of April 27, 1926, published in the Diario Oficial of May 3, 1926, the directorate of the company was made a dependency of the Federal Executive Power, whose purpose was to organize, direct, and administer the merchant marine owned by the nation. The directorate was composed of a director, a consulting board, and other employees, qualified to enter into contracts, to operate the lines, and to establish freight and passenger rates, subject to the approval of the Department of Communications and Public Works.

The decree (art. 10) also provided for the distribution of profits in the following manner: Fifty per cent for increasing and replacing tonnage; 20 per cent for a special reserve fund; 30 per cent to be divided—5 per cent to the consulting board, 3 per cent to the director, 4 per cent to captains of ships, 4 per cent to engineers of ships, 10 per cent to officials and seamen, and 4 per cent to employees.

The operations of the National Navigation Lines has been confined to the Pacific ports of Mexico, with extension to Los Angeles and San Francisco, Calif. It is reported that the lines have been operated at a loss.

PANAMA

GOVERNMENT GUARANTY FOR COASTING TRADE

Law No. 23 of 1924, dealing with the coasting service of Panama, provides:

ARTICLE 1. Those enterprises already established or which may be established or organized in the country to place one or more modern steamships into the exclusive national coastwise service are declared of public utility.

ART. 2. All vessels which may be introduced into the country to aid the service referred to in the previous article shall be exempt from the payment of import taxes; and the Government shall guarantee to the enterprises which may introduce them annual interest at 4 per cent for five years on the capital actually invested in the purchase or construction and equipment of the vessels, proving this to the satisfaction of the Government, so long as the cost of the vessel does not exceed \$200,000.

ART. 3. For this concession the enterprise must fulfill the following requirements:

(a) That the vessel or vessels be new, and if this is not possible that they be not more than 5 years old, duly proving such circumstance to the Government;

(b) That the enterprise place in operation at least one vessel of 500 tons register with capacity for 80 first-class passengers and 80 second and third, prepared to transport dead-weight freight, and at least 200 fat young steers; also equipped with refrigerating space with capacity up to 10 tons to serve as space for fruits or perishable articles;

(c) That the larger vessel referred to above develop a speed of at least 14 knots.

The speed requirement referred to in this article is necessary only for those vessels which are engaged in traffic with ports of the Province of Chiriqui, with Aguadulce, in the Province of Cocolé, and with Sona and Mutis, in the Province of Veraguas. Vessels engaged in traffic between the remaining ports of the Republic may have less tonnage and less speed, but in order that the national treasury concede and pay the annual 4 per cent on the capital invested in them they shall not have been constructed more than five years nor shall they use other fuel than mineral coal or crude oil.

ART. 4. The enterprises or owners of vessels desiring to accept the advantages which this law stipulates and who so signify before the Secretary of Finance and Treasury shall, during the five years in which they profit from the guarantee of the 4 per cent be obliged to render the following services:

- (a) Carry free of charge the national mails;
- (b) Transport merchandise destined for the Government for public service and national enterprises at 40 per cent reduction from the usual tariff;
- (c) Conduct free of charge the nationally employed personnel which the Government may send on official commissions, and the following public officials: The President of the Republic, and the Secretaries of State, the Magistrates of the Supreme Court of Justice, the National Attorney General, the provincial governors and the delegates to the National Assembly;
- (d) Make, according to requirement, three monthly journeys with fixed itinerary between the Port of Panama and the ports of the Province of Chiriqui, and those which the Executive power may establish, according to the importance of the traffic, between the other ports of the country.

ART. 5. The Executive power shall make this law public outside the country.

ART. 6. The Executive power is given authority to vote the special credits indispensable for fulfilling article 2 in case some enterprise may accept this law before the meeting of the National Assembly in its next sessions.

ART. 7. Before the advantages offered in article 3 are conceded to any vessel, it shall be examined by the inspector of the respective port and by an expert recommended by the naval authorities of the Panama Canal. If in the judgment of these the vessel should not meet the required conditions, the concessions shall not be granted.

ART. 8. The existing enterprises in the country which may increase the number of their vessels, fulfilling the conditions required in articles 2, 3, and 4, shall have the right to the guaranty of the 4 per cent on the value of the additional vessels which they may put in service within nine months after the publication of this law and if they may have fulfilled the obligations which they have contracted with the Government.

PERU

PERU'S COASTWISE SHIPPING LAW

The sea is the only means of communication between many sections of Peru, and the national merchant marine has been considered inadequate to render all the service necessary for Peruvian domestic trade. This has been considered the principal reason for the delay in adopting a coastal restriction law. Such laws were enacted, but were not made operative until law No. 6207 finally went into effect on November 15, 1929. Among the principal provisions of law No. 6207 are:

1. All Peruvian coastal trade is restricted to Peruvian vessels;
2. Peruvian vessels are required to maintain weekly services north and south under approved freight rates;
3. Peruvian vessels are to have preferred dispatch over foreign in the matter of port services, etc.;
4. Passenger and mails are not limited to Peruvian vessels;
5. Foreign cargoes brought on Peruvian vessels may remain in custom-houses for six months without charge;
6. Crews of Peruvian vessels may load and discharge cargo, but this is forbidden on foreign vessels.

This law was to have come into force six months from the date of promulgation, May 14, 1928, but because of various conflicting developments it remained inoperative until November 15, 1929, as just said.

SPECIAL EXEMPTION IN FAVOR OF CHILEAN COMPANY

Article 12 of the coastal law reads: "If for any reason the coastwise commerce suffers detriment as a result of this law, the Executive Power is authorized to extend the privileges of it to any foreign ship or company and for whatever period is considered appropriate." Under this provision a special exemption was made in favor of the *Compañía Sud Americana de Vapores* (South American Steamship Co.) of Chile, which has been one of the largest operators in the Peruvian trade. Accordingly a contract was concluded on October 26, 1929, by which the company's steamers were accorded all the rights of Peruvian vessels in the coastal trade except those under articles 8 and 13 of the law, which deal with the nationality of crews and naval-reserve status of vessels.

The contract was effective from November 15, 1929, to December 31, 1930, and specifically provided that the privileges and rights under the contract should not be extended to any other navigation company or to foreign vessels. In exchange for the concession the Chilean company agreed to pay the Peruvian Government £P15,000 (\$60,000 at the stabilized rate of \$4) in equal quarterly payments.

MODIFICATION OF JULY 7, 1930

Important changes in the coastal law of Peru were reported by Vice Consul Archibald E. Gray, Callao-Lima. On July 7, 1930, a supreme decree was passed modifying the resolution of November 25, 1929, and limiting the transportation of petroleum derivatives in cases and cylinders to vessels flying the Peruvian flag. The resolution of November 25, 1929, which brought the coastwise shipping law into effect, specifically exempted the *South American Steamship Co.* of Chile from its provisions, permitting it to engage in the Peruvian coastwise trade in return for an annual payment for the privilege. The new decree deprives the Chilean company of its preferential position among foreign companies in so far as petroleum derivatives are concerned.

SUBSIDIES TO PERUVIAN STEAMSHIP CO.

For a quarter of a century the Peruvian Government has adopted various measures with the object of promoting a national steamship line, the latest of which is a decree issued January 8, 1931, reorganizing the respective positions of the *Peruvian Steamship Co.* and the Government. The steps leading up to this action were thus briefly outlined by Commercial Attaché Charles H. Cunningham, Lima:

LAWS OF 1906-1913

Creation of Peruvian Steamship Co., Law No. 194 of February 6, 1906.—This law created the *Peruvian Steamship Co.* and granted an annual subsidy of £P30,000 (\$145,995 at par of that day) for 15

years, the amount being guaranteed by the revenue obtained from the match industry. Supplies imported by the company were to be admitted free of customs duties.

Extension of term of subsidy, Law No. 1059 of February 29, 1909.—This law extended the term of the original law to 21 years, during which the company was to receive subsidies of £P30,000 annually. This was necessary in order to cover the financing of the company. The company was financed by a stock issue of £P300,000 (\$1,459,950). Of this issue it became necessary for the Government to subscribe £P128,690 (\$626,270), the amount to be amortized through the subsidy arranged.

Subsidy advances, Law No. 1079 of March 31, 1909.—This law authorized the Government to pay to the Peruvian Steamship Co. £P17,500 (\$85,165) due on the subsidy of £P30,000 for the year 1908.

Subsidy increase, Law No. 1798 of January 11, 1913.—This law provided an additional subsidy of £P15,000 (573,000) annually for a term of 29 years.

Further increase, Law No. 1845 of October 25, 1913.—By this law the subsidy of £P15,000 created by the law of January 11, 1913, was increased to £P22,550 (\$109,740). This subsidy was to be applied in contracting a loan for £P250,000 (\$1,216,625), 70 per cent of which was to be expended in taking up the debts of the company, which then amounted to £P243,500 (\$1,185,000), and the remainder was to be used for working capital. The law stipulated also that if the venture were profitable such profits were to be applied to liquidating the £P7,500 increase of subsidy provided by this law over that provided by Law No. 1798.

REVISION OF 1918

During the period of the World War the affairs of the Peruvian Steamship Co. so prospered that it was enabled to take up many of its obligations. By Law No. 2741 of May 17, 1918, the Peruvian Government was released from the obligations of the laws cited above and, instead, undertook to guarantee, for 30 years, an 8 per cent dividend on shares in the company not owned by the Government, the company to assume and take up the loans for which it had contracted. It was agreed that the Government should receive, on shares held by it, a maximum dividend of 6 per cent from the profits of the company.

The law of May 17, 1918, further specified that when the company had taken up its loans the shareholders were to appoint four members of the directorate and the Government two. Press comment¹² indicated that the company was able to take up its obligations and did in fact do so; that large dividends were distributed, but that the Government still retained control through a majority representation on the directorate; also that only £P165,000 (\$802,975) was actually paid to the company by the Government.

¹² Lima Chamber of Commerce Bulletin, January, 1931.

On January 8, 1930, the company was declared in liquidation by presidential decree, under the terms of which the Government assumed the administration of the fleet and Callao docks, and the company was ordered to deliver to the superintendent general of customhouses the steamers, docks, launches, machinery, tools, furniture, and all other property on the books of the firm.

REORGANIZATION OF 1931

The difficulties surrounding the administration of the Peruvian Steamship Co. assumed the form principally of a general controversy as to unpaid subsidies, which the company for a number of years carried in its balance sheet as a liability item of £P455,000 (\$2,214,250 at pre-war par, or \$1,820,000 at the stabilized rate of \$4) as "capitalized subsidies." This led, in the general reorganization of 1931, to specific budgetary undertakings to establish new obligations and the cancellation of old obligations on the part of the Government. The only direct subsidy of the new law is interesting in that it is limited to an amount equal to the payment made by the South American Steamship Co. of Chile to the Peruvian Government in consideration of the contract previously discussed. The decree of January 8, 1931, provides:

1. The Ministry of Finance is authorized to return to the Peruvian Steamship Co. the shares which the Government has in the company. These shares shall be sold in the local market, excluding foreign steamship companies. All transfers to foreign shipping companies shall be annulled by the Government. The proceeds of the sale shall serve to pay the debts of the Peruvian Steamship Co., and the balance, if any, shall be applied to overhaul and administer the ships of the company.

2. The Peruvian Steamship Co. shall be given a subsidy of £P120,000 (\$480,000 at the stabilized rate of \$4) annually, which is equivalent to the sum paid to the Government by the Compañía Sud Americana de Vapores for the right to participate in the coastwise shipping, until December 31, 1932.

3. The Government shall include in the general budget for 1931 the item referred to in the supreme resolution of July 25, 1930, for the payment of 97,383 soles (\$38,953 at \$0.40 to the sol) to the Bank of Italy, which payment shall be considered as additional to the subsidy referred to in article 2.

4. The Peruvian Steamship Co. shall be granted free postal and telegraphic service and exemption from cable tax, from dues payable on entry and clearance of lighters, and on transshipment of coal and merchandise in transit, payable to the Terminal Marítimo, it being understood that the services given by the Terminal will be on the company's cargo.

5. The obligations taken over by the Government, as per laws Nos. 194, 1059, 1079, 1845, and 2741, shall be considered as canceled, and therefore the sum of 5,693,795 soles (\$2,277,518) charged to the Government for subsidies granted shall be eliminated.

6. The general meeting of the shareholders of the company will take steps toward the application of this decree in accordance with the Commercial Code relative to stock companies. The acceptance of this decree by the company and its creditors shall be duly legalized in the deed to be issued in due time.

A further subsidy of 50,000 soles was authorized by decree of March 31, 1931, according to Commercial Attaché Charles H. Cunningham, Lima, April 25, 1931. This subsidy represents a sum payable to the Government by the International Petroleum Co. in compensation for the privilege of using their vessels and tankers in the transportation and supply of fuel oil, gasoline, and kerosene along the Peruvian coast.

POLAND

Poland is the sixth nation of Europe, with a population of 27,000,000 and an area almost equal to that of New York, Pennsylvania, Virginia, and the New England States combined. Its access to the Baltic is through the ports of Danzig and Gdynia. Danzig, almost continuously for 350 years a free city under allegiance to Poland and transferred to Prussia by the Conference of Vienna in 1814, was made a free city under the League of Nations by the treaty of 1919 and is subject to Polish diplomatic and customs regulation. Now that Poland's territorial limits are fixed, the Polish Government has established Gdynia, a port of its own, on the Baltic (Bay of Danzig) in Polish territory and outside the free-city zone.

Poland commands exactly 75 kilometers (46.6 miles) of seacoast. The only port of any importance is Gdynia, just mentioned, with a population of 25,400. Tczew, another port located near the mouth of the Vistula, has a population of about 17,000. Puck (Putzig) is a base for the small Polish Navy and is a fishing port, with a population of 3,000 to 4,000. There is no trade between the various ports mentioned. Poland has supervision over the foreign relations of the Free City of Danzig, and its ports have a certain amount of trade with Danzig.

Poland furnished most of the coal and ore and much of the manufactured iron with which the shipyards of Danzig and Stettin were supplied, but is without steel-ship building facilities of its own, as the German Schichau yards are within the Danzig zone. The German naval shipyard and railroad shops are outside the zone limit and, under an international board of administration on which Poland is represented, afford opportunities for the building of such Polish merchant and Government ships as the finances of the country permit.

THE PORT OF GDYNIA

The active interest of the Government has been directed principally toward (1) the building of the port of Gdynia and (2) development of a Government-controlled steamship company.

Regarding the port, Consul Charles H. Heisler of Warsaw advised under date of June 30, 1929:

Construction of the port of Gdynia has so far cost the Polish Government about 250,000,000 zloté (\$28,050,000 at the stabilized rate of \$0.1122), of which actual work on the port consumed approximately 110,000,000 zloté (\$12,342,000). The remainder went toward the construction of the railway station, railroad, post office, and water-supply system and the purchase of vessels for the Polish merchant marine. It is stated that work on the port during the next five years will cost the Government an additional 150,000,000 zloté (\$16,830,000).

The Polish State budget for the fiscal year 1929-30 provides a fund of 30,000,000 zloté (\$3,366,000) to be expended on the development of the port, in addition to which other special funds are to be allotted from time to time as need arises. The present handling capacity of the port is about 200,000 metric tons monthly, but after the basins are all completed the capacity will be increased to about 9,000,000 tons a year.

Development of the town of Gdynia is also proceeding rapidly, and will soon become a modern city with numerous business houses, banks, and branch offices of Polish and foreign concerns.

THE GOVERNMENT FLEET

Prior to the purchase of 3 passenger ships from the East Asiatic Co., of Copenhagen, the Polish Government owned 9 cargo and 4 passenger vessels. In respect to the acquisition of the East Asiatic vessels and their proposed operation to New York, the British shipping journal, *Fairplay*, in its issue for March 13, 1930, has the following to say:

An important sale of tonnage abroad has this week taken place, the East Asiatic Co. having sold its three passenger liners to the Polish Government, represented by the Government steamship company, the *Zegluga Polska*, Gdynia. The vessels concerned are the *Polonia* (ex *Kursk*), 7,500 gross tons, built in Glasgow in 1910; *Lituania* (ex *Czaritza*), 6,522 gross tons, built in Glasgow in 1915; and *Estonia* (ex *Czar*), 6,345 tons gross, built in Glasgow in 1912. These steamers were originally built for the Russian East Asiatic Co., a subsidiary of the East Asiatic Co., Copenhagen, but after the war the steamers were taken over by the East Asiatic Co. itself, which then inaugurated the Baltic-American Line for the operation of the vessels in the regular passenger and cargo service between the Border States and New York. However, this business falling somewhat outside its ordinary sphere, the East Asiatic Co. has been desirous of disposing of the vessels, and this desire has now resulted in the arrival at an arrangement with the *Zegluga Polska*, Gdynia. The purchase sum amounts to 18,000,000 zlot (2,019,600) for the three vessels, of which 4,700,000 zlot (527,340) is being paid in cash.

To operate the vessels, which will remain in their present service between the Border States and New York, a new company will be formed with a share capital of 9,000,000 zlot (\$1,009,800), in which the East Asiatic Co., Copenhagen, is participating as shareholder to an amount of 4,300,000 zlot (\$482,460). In this way the East Asiatic Co. continues to be financially interested in the steamers, whereas the working of the line will be entirely in the hands of the *Zegluga Polska*, which will be represented in the new company with 52.2 per cent of the shares. For some little time to come the vessels will be manned with Danish officers and crew, but according to the terms of sale the vessels are within a year to be fully manned with Polish officers and crew.

Another Danish steamer has this week been purchased and taken over by the *Zegluga Polska* on behalf of the Polish Government, namely, the cargo steamer *Helga*, of about 1,600 tons dead weight. Under the name of *Chorzow* the steamer to-day left Copenhagen for Gdynia.

AID TO SHIPPING AND SHIPBUILDING

DECREE OF DECEMBER 22, 1925

In regard to Government aid to Polish commercial shipping, Assistant Trade Commissioner L. J. Cochrane on January 26, 1926, reported:

By Decree No. 891, published in *Dziennik Ustaw* No. 125 of December 22, 1925, the Polish Government is empowered:

(1) To grant credits to or give guaranties for credits obtained abroad by Polish shipbuilding and navigation companies when such credits are to be used for necessary construction, purchase of vessels, etc.;

(2) To grant subsidies to navigation companies which construct vessels in Poland or which maintain a regular sea service. The subsidy is to be based on the size of the vessel, on the route, on speed, and on the regularity with which the schedule is maintained, and is conditional on the vessel's calling at ports designated by the Polish Government for the purpose of transporting mails;

(3) To grant facilities for the transportation of material for the construction of vessels by Polish companies and for the transportation of materials to be shipped via a Polish vessel;

(4) To give special financial guaranties to Polish insurance companies carrying marine insurance;

(5) To lower port charges, customs duties, railway charges, etc., in favor of Polish shipbuilding companies; and

(6) To free Polish shipbuilding companies partially or wholly from all taxes and dues for a period not exceeding 15 years.

The subsidies are granted on the recommendation of a committee which will be appointed by the Ministry of Industry and Commerce.

DECREE OF NOVEMBER 29, 1930

Further aid to Polish shipping enterprises is provided by a decree of the President of the Republic of November 24, 1930 (published in *Dziennik Ustaw* No. 80, November 29, 1930):

Industrial and transportation enterprises which, prior to the end of 1935, had their residence in Gdynia or will have been established there, can be exempted, in exceptional cases meriting special consideration, by the Council of Ministers for a period of 10 years from national industrial taxes collected pursuant to Chapter I of the law on national industrial taxes, the text of which was established by a regulation of the Minister of Finance of April 30, 1925 (*Dziennik Ustaw* No. 58); provided these enterprises make before the end of 1935 investments of special importance for the extension and economic development of the city and port of Gdynia.

Requests for exemption will be submitted to the Council of Ministers by the Ministers of Industry and Commerce and of Finance.

Enterprises and works which have been exempted, in compliance with the above, from national industrial taxes will be liable for regular industrial taxes levied by communities and communal institutions as mentioned in article 120 of the above referred to law on national industrial taxes.

PREFERENCES AND RESTRICTIONS

RESERVATION OF THE COASTING TRADE

There are no regulations governing the coasting trade of Poland, Commercial Attaché Clayton Lane, of Warsaw, reports; but the principle is that this trade is restricted to Polish ships. A special agreement with the Free City of Danzig extends this privilege to ships of Danzig registry. Navigation treaties with other countries usually recite that the coasting trade is not covered by their provisions. The following article of the Polish-Japanese treaty of commerce and navigation is typical: "The coasting trade of the high contracting parties is excepted from the provisions of the present treaty, and shall be regulated according to the laws of each of the high contracting parties." (*Journal of Laws* No. 5 of 1925, art. 17.)

"The Polish commercial fleet, now [May, 1929] numbering 12 freight ships of an aggregate tonnage of 42,000 register tons," the commercial attaché stated, "is used almost exclusively in export business, the coasting trade being served satisfactorily by a few barges and similar small craft."

RUMANIA

Rumania's political, economic, and financial position was greatly altered by the World War. The area of the country was more than doubled by the addition of Transylvania, the Banat, Bukowina, and Bessarabia, and the population was increased from 7,500,000 to 17,000,000. These territories and their populations had been under the rule of the three absolute monarchies which surrounded Rumania prior to the World War—Hungary, Austria, and Russia.

Commercial shipping in Rumania, though small, is State owned and assisted. In the realignment of economic legislation by which

to develop the natural resources and industry of Rumania the principle of Government interest in the general scheme was thoroughly analyzed and classified, and the various State monopolies or commercial enterprises were placed in definite categories in the public interest. Direct State exploitation, lease or concession, and mixed administration represent the various relationships of the State with these activities. The enterprises themselves are divided into two groups—(a) those of general interest, performing services concerned with national safety and defense, or monopolies such as railways, postal services, telephones, and telegraphs, and (b) those of purely commercial and industrial character which are State owned but are not monopolies. Under the latter head are mines, forests, fisheries, metallurgical works, various industries, river and ocean steamship services, etc., owned by the State.

STATE MARITIME SERVICES

From 1897 the Government directly operated services between the Black Sea ports of Rumania and Constantinople (Istanbul), Rotterdam, Alexandria, Smyrna, and Piræus. By 1910 these services employed 17 and 18 knot vessels of approximately 3,000 gross tons. In the period of reconstruction following the war the revenues from the State-owned marine were but one-fourth the budget provisions for its operation. The budget estimates for 1924–1927, with the revenues from operations for these years, are shown in Table 147.

TABLE 147.—BUDGET ESTIMATES AND OPERATING REVENUES, RUMANIAN MARINE SERVICE, 1924–1927

Year	Budget operating estimates, lei	Operating revenues, lei	Loss	
			Lei	Equivalent in United States currency ¹
1924.....	235,940,000	45,407,537	190,532,463	\$948,850
1925.....	170,000,000	28,174,747	141,825,253	685,000
1926.....	218,616,000	70,173,630	148,442,370	685,800
1927.....	222,000,000	41,951,144	181,048,856	1,037,500

¹ Converted at \$0.00498 to the lei for 1924, \$0.00483 for 1925, \$0.00462 for 1926, and \$0.00604 for 1927, the annual average exchange values for those years.

The seagoing fleet of the ocean services in 1928 included 12 vessels of 32,000 gross tons. The stimulation toward private enterprise caused by recent policy and reorganization has created some small ventures, so that on July 1, 1931, Lloyd's Register credited Rumania with 31 vessels (of 100 gross tons and upwards) having a total gross tonnage of 65,921, including also vessels of this classification in the State-owned river fleet. The Rumanian Sea Services (S. M. R.) in 1927 carried 204,000 tons and in 1928, 170,000 tons of cargo.

REORGANIZATION OF 1929

On August 2, 1929, a law was passed which changed the governing body of the Rumanian maritime services, the General Directorate for

Ports and Waterways Communication (which was created in March, 1908) into an independent and autonomous public commercial administration.¹³ The new body will concern itself primarily with port and river conditions, inasmuch as the river and ocean services have their own special organizations under the auspices of a public commercial administration; but until the river and ocean services reach a proper commercial development they will be included within the new administration, as likewise will the Severin shipyards.

Included in the functions of the new organization are the maritime port and entrepôt of Constanza, the river ports and entrepôts of Braila and Galatz, the navigable waterways, and the police supervision of ports and navigation. Provision is made for local participation in the exploitation of the principal ports where free zones shall be created.

The administrative council of the new administration will be made up of representatives of the Chambers of Commerce and Industry of Braila, Constanza, and Galatz, and of the Ministries of Communications, Agriculture, Finance, and War. The council has full powers concerning administration and operation. During the first 10 years the law allows the independent treasury of the ports and waterways administration to retain its revenues in order that they may be used for the execution of major works. Upon expiration of this period the Council of Ministers will fix the share which the organization shall cover into the public treasury.

STATE CONSTRUCTION ALLOTMENTS

From the international loan contracted in February, 1929, the Government allotted 2,000,000,000 lei (\$12,000,000 at \$0.006 to the lei) for renewal of vessel and port equipment.

The Rumanian Sea Services (S. M. R.) were allotted 1,000,000,000 lei (\$6,000,000) for the construction of six steamers, of which three passenger steamers will be of 6,000 gross tons and three mixed passenger and freight vessels of 6,500 gross tons. These vessels are to be constructed according to the mail-ship type of France and will cost 950,000,000 lei (\$5,700,000).

The River Navigation Service (N. F. R.) was allotted 400,000,000 lei (\$2,400,000) for the construction of two vessels for the Galatz-Turnu-Severin and the Galatz-Sulina lines on the Danube, as well as for 30 barges for the Danube and 20 barges for the Pruth, in addition to tankers and tugboats.

The balance of approximately 650,000,000 lei (\$3,900,000) was to be allotted for port equipment.¹⁴

PREFERENCES AND RESTRICTIONS

RESERVATION OF THE COASTING TRADE

RIVER-PORT TRAFFIC

Restriction of coasting trade in Rumania was reported by Commercial Attaché Sproull Fouche, Bucharest, under date of July 20, 1929:

¹³ Les Forces économiques de la Roumanie en 1929, Banque Marmorosch, Blank & Cie., Bucharest, p. 72.

¹⁴ Report of Consul General E. E. Palmer, Bucharest, Apr. 25, 1929.

By far the most important domestic water traffic of Rumania is that carried on between the Danube River ports, especially between upper-river points and Sulina at the mouth of the Danube, to which latter port large quantities of grain are lightered down for shipment abroad during the winter season when the river is closed by ice. All of this transportation is carried out with lighters and tugs of the "N. F. R." (Navigatiunea Fluviala Romana), Government owned, and the "S. R. D." (Soc. Anon. Romana de Navigatiune pe Dunare), which is a semigovernmental institution.

Under article 22 of the Statut Definitif du Danube no transportation between Rumanian river ports can be carried on by other than Rumanian vessels except under agreement with the Rumanian authorities. No such agreement is in force as to merchandise, hence all foreign shipping lines are excluded from this freight business. In urgent cases special permission is sometimes granted by the Rumanian authorities.

The foreign lines now permitted to transport passengers between Danube River ports are the Rhein-Donau-Express-Schiffahrts-A. G. (Austrian), Bayerischer Lloyd (German), Donau Dampfschiffahrts-gesellschaft (Austrian), "S. R. N." (Societatea Romana de Navigatie) (French), and "M. F. T. R." (Magyar Folyoes Tengerei Reszvenytarsasag) (Hungarian). A little traffic is carried on the Pruth by small private Rumanian enterprises.

OCEAN-PORT TRAFFIC

Rumania has only two maritime ports of any importance, Sulina and Constanza, but ships occasionally call at Balciic and Mangalia and take on freight in the roads. The river ports of Galatz and Braila are accessible by ocean-going vessels of 18 to 23 foot draft, depending upon the varying bar depth at Sulina. A small amount of merchandise and a few passengers are carried between Galatz, Braila, Constanza, and Sulina by the Rumanian lines named above.

No foreign ships are permitted to engage in this maritime traffic except by agreement with the Rumanian port authorities. No such agreement now exists and the traffic is carried on exclusively by ships operating under the Rumanian flag. Should the Rumanian lines not be able to handle the traffic, an agreement with foreign shipping companies would be made promptly, but, so far, no necessity has arisen for entering into an agreement of this sort.

EL SALVADOR

POSTAL CONTRACT SERVICES

In the concession granted to all mail-carrying steamship lines by the Salvadorean Government the tonnage tax is waived. In exchange, Vice Consul Latimer states, the steamship lines are obligated to carry first and second class mail without compensation from this Government.¹⁵

The Government of El Salvador has entered into a joint contract for the carrying of mail with the Kosmos Steamship Co., of Hamburg, and the Roland Line, of Bremen. This new agreement cancels the contract of October 28, 1926. The new contract is similar to those held by all the shipping companies handling mail for this country. A summary of its more important provisions was furnished

¹⁵ Report of Vice Consul F. P. Latimer, jr., San Salvador, Feb. 11, 1930.

by American Minister Warren D. Robbins, San Salvador, January 12, 1931:

1. Ships are exempted from carrying papers visaed by a consul of El Salvador when circumstances render the obtaining of a visa impossible.

2. Each company is obligated to transport free all classes of mail and parcel post from El Salvador to any port of call.

3. Ships will not be delayed to receive mail.

4. Ships will be received, worked, and dispatched on any day. They will not be received at night without special permission.

5. Ships will have the same privileges as other mail ships, such as those of the Pacific Steam Navigation Co., the Cie Générale Transatlantique, etc.

6. Chartered ships or those of the Hamburg-American Line (with which the Kosmos Line has merged) and the North German Lloyd (with which the Roland Line has merged) will come under the terms of this contract.

7. Ships may deposit at the customhouses, without charge, freight for transfer to other ships when necessitated by unforeseen circumstances.

8. Ships are obligated to carry troops and munitions of the Salvadorean Government at a reduction of 50 per cent.

9. No port or municipal duties will be levied against the companies' ships, and the companies shall receive free telegraphic, telephonic, and postal service locally.

10. Eighty per cent of the local employees must be Salvadoreans.

11. Free passage must be provided for the President, his ministers, and subsecretaries of state to any port, and free passage must also be provided between Salvadorean ports for Government inspectors of communications.

12. The companies agree to give a 20 per cent reduction to diplomatic and consular officers of El Salvador.

13. Disputes regarding terms of this contract are to be arbitrated in El Salvador.

14. Consular and sanitary services must be paid for by the companies.

15. This contract terminates two years from October 29, 1930, renewable automatically unless four months' notice of termination is given at any previous time.

TURKEY

THE TURKISH COMMERCIAL FLEET

The Turkish commercial fleet on July 1, 1931, comprised 190 vessels of 179,287 gross tons, or approximately 50,000 tons more than the tonnage registered before the World War. Of this tonnage 23 vessels were over 2,000 gross tons; 44 vessels were owned by the Seir Sefaine (Turkish Shipping Board), of which 7 were of more than 4,000 gross tons and 25 of less than 1,000 gross tons. The tonnage is in most instances quite old. The Seir Sefaine is the only shipping organization in possession of larger vessels.

The comparatively small tonnage of the Turkish merchant fleet at the outbreak of the war was due primarily to the inability of the

Ottoman Empire to reserve Turkish coastal trade to vessels under Turkish registry.¹⁶ Foreign competition was detrimental to the proper development of the small navigation companies. The Seir Sefaine was an exception. This organization was subsidized by the Turkish Government, owned some vessels of large size, and became the nucleus of the merchant marine.

Since July 1, 1926, the coastwise shipping trade of Turkey and various port activities and maritime pursuits within territorial waters have been restricted to the Turkish flag and to Turkish citizens.

MEASURES IN AID OF THE MERCHANT MARINE

Coasting reservation is one of many restrictive measures adopted by the Turkish Government in 1926 in an effort to build up a purely Turkish Moslem state. Owing to the extensive seacoast, the strategic location of Istanbul (Constantinople) and Smyrna in relation to the Levant trade and of Samsun to the Black Sea trade and to the projected railway into the interior, the restrictions of the law of April 19, 1926 (quoted below), should prove a great stimulus to the development of independent national shipping so far as available capital and national enterprise may permit.

The complete exclusion by this law of foreign shipping from a coasting trade that had been carried on principally by Greek and Italian vessels caused some disturbance among shippers, and this served to place shipping in a position to command public attention. Later in 1926 a commission which had been formed to study the merchant-marine situation reported on other forms of Government aid, including ship mortgages, reduction of marine-insurance rates, exemption from customs duties and maritime taxes, and the development of aids to navigation in Turkish waters.

Early in 1927 the Turkish Shipping Board was authorized to float a loan of £T5,000,000 (\$2,600,000 at the 1927 average exchange rate) for the purpose of adding more vessels to its fleet.

PREFERENCES AND RESTRICTIONS

RESERVATION OF THE COASTING TRADE

Law No. 815 of April 19, 1926, relates to "cabotage in the Turkish littoral and to professions and industries in the ports and within the limits of territorial waters," and provides:¹⁷

ARTICLE 1. The transportation of merchandise and of passengers from one point on the Turkish littoral to another point on the same littoral, tuggage, and pilotage within a port or between two ports, as well as all port activities of whatever nature, are reserved exclusively to the Turkish flag.

Vessels of foreign nations may disembark and discharge in Turkish ports only such passengers and such merchandise as they may have taken on in foreign countries, and may take on in Turkish ports only passengers and merchandise for foreign countries.

ART. 2. There shall be reserved exclusively to Turkish citizens the right to possess and to operate, within the rivers and lakes, within the Marmora Basin and the straits, as well as within the territorial waters of Turkey and within the gulfs, ports, bays, and other places which are a part of the aforementioned

¹⁶ Report of Vice Consul Edwin A. Plitt, Istanbul (Constantinople), Dec. 4, 1924.

¹⁷ Official Journal No. 359, Apr. 29, 1926.

territorial waters, steamships, steam tugs, barges, lighters, barks, caiques, and in general all types of vessels, large or small, propelled by steam or by sail, dredges, grapples, cranes, "algarms," all types of pontoons utilized as tankers or for transport, "lymbos," salvage vessels and related craft, buoys, rafts, and other floating and fixed mediums.

ART. 3. There shall be reserved to Turkish citizens the pursuit of fish, oysters, clams, sponges, pearls, coral, mother-of-pearl; the right of collecting sand, gravel, and other products within the territorial waters; as well as the refloating of stranded vessels and barks, whether under or above the water, and of abandoned wrecks; the exercise of the professions of diver, inspector, pilot, and of "epicier sur mer"; the exercise of the professions of captain, machinist, steward, sailor, helmsman, or others aboard all means of Turkish maritime transport; the profession of porter, dockmen, and all maritime professions in general.

ART. 4. The state may authorize provisionally—and without such authorization assuring to them any recognition by law—foreign salvage vessels to operate, as it may at the same time utilize the services of foreign captains and crews on Turkish salvage boats.

ART. 5. Boats and vessels of foreign nationality which, contrary to the provisions of article 1, engage in cabotage services between Turkish ports shall be liable to a fine of £T1,000 to £T10,000. Further, such vessels shall be forbidden, for a period of six months to one year, to embark or to disembark passengers and cargo from Turkish ports or destined for those ports, the right to which is recognized in paragraph 2 of the same article.

If the vessel violating these laws belongs to a navigation company or to one or more persons possessing several vessels, this interdiction shall extend equally to the other units of the company or of the owners in question.

Foreign subjects who attempt to exercise in any manner the maritime rights enumerated in articles 2 and 3 and reserved to citizens of the country shall be liable to a fine of £T100 to £T1,000 and to imprisonment from one to three months. Only one of these two penalties may also be applied. In case of repetition of the offense the penalties shall be doubled.

ART. 6. The present law shall be effective from July 1, 1926.

ART. 7. The Ministers of Commerce and of Justice are charged with the enforcement of the law.

UNION OF SOUTH AFRICA

POSTAL CONTRACT SERVICES

The Union of South Africa includes the former colonies of the Cape of Good Hope and Natal and the one-time Boer Republics of the Transvaal and Orange Free State, all of which were united under self-governing privileges on May 31, 1910. The total European population numbered about 1,676,000 in 1926.

For many years connection between the United Kingdom and the Union of South Africa (or the territories which now comprise the Union) has been maintained by subsidized services. The course of the subsidies has followed the growth of British power in Africa. From 1851 to 1863 the annual subsidy was approximately £32,000 (\$155,700); then for another period of about the same length, the mails for the Cape of Good Hope were paid for by weight.¹²

The first ocean-mail contract, entered into in 1876, provided for a regular weekly mail service, the passage between the United Kingdom and Cape Town to be completed in 26 days.

CONTRACT OF 1899

In 1899 an agreement was concluded between the United Kingdom and the various colonies and states of South Africa for the

¹² Government Aid to Merchant Shipping, 1923, ed., p. 316.

adoption of a scheme proposed by the Cape Colony post office, under which the cost of the ocean mail service was borne proportionately by the participating British and South African Governments on the basis of the use made of it by each. The Cape Colony administration was responsible for the management of the South African ocean mail service on the basis of this agreement up to the date of union.¹⁹

The contract of 1899-1900 was made with the two steamship companies since consolidated into the Union-Castle Mail Steamship Co., the steamers of which were called upon during the Boer War of 1898-1901 to carry large bodies of British troops to South Africa. They were again employed as transports to carry the South African troops to France during the World War, and in the autumn of 1922 they helped to move British troops to the Dardanelles. The contracts since 1899 have provided temporary arrangements for mails whenever "in case of great public emergency" the regular liners of the company are used for military purposes. The contracts also provide that the company shall carry emigrants from the British Isles for South Africa at 20 per cent less than the customary steerage rates. After the Boer War the subsidy was increased to £150,000 (\$730,000) and an additional £21,000 (\$102,200) was provided for extending the mail voyages to Durban on the east coast of Natal, adjoining the Transvaal and the Orange Free State.²⁰

CONTRACT OF 1912

The present contract is being performed by the Union-Castle Mail Steamship Co. The following statement in respect of this service is contained in the Official Yearbook of the Union of South Africa for 1927-28:

The contract with the Union-Castle Mail Steamship Co. had force for 10 years from October 1, 1912, at a subsidy of £171,000 (\$832,170) per annum, of which £21,000 (\$102,200) was paid in consideration of the mail steamers' commencing and terminating their voyages at Durban instead of Cape Town.

This contract was extended for a further two years, with the option of a reduction to 16 days on the voyage to Southampton on payment of an additional subsidy. The new subsidy is £225,000 (\$1,094,965) per annum, of which £27,000 (\$131,400) is paid in consideration of the mail steamers' commencing and terminating their voyages at Durban instead of Cape Town. Great Britain, Southern Rhodesia, and the Bechuanaland Protectorate, formerly contracting parties, withdrew on September 30, 1924. A new contract has not yet been arranged, but the former agreement is maintained for the present on the basis of a year's notice on either side.

Discussing this contract, Government Aid to Merchant Shipping stated:

A FORM OF IMPERIAL PREFERENCE

The Castle Mail contract illustrates one of the methods by which the dominion governments may cooperate with the British Government in furthering projects for imperial preference. It requires the steamship company to carry South African beef to England at one-eighth of a penny per pound less than the rate for carrying beef from Argentina to England, and the maximum rate may not exceed six-eighths of a penny per pound. The contract also provides for ample refrigerated space on the ships and cool chambers with a view to

¹⁹ Official Yearbook of the Union of South Africa, 1927-28, p. 761.

²⁰ Government Aid to Merchant Shipping, 1923, ed., p. 316.

increased transport of South African fruit and vegetables as well as beef. It fixes the freight rates to be charged on these articles, on eggs, bacon, cheese, and a large range of food products. In fact, its purpose is both to secure a British market for the products of agricultural South Africa (as well as for those of the gold and diamond mines) and to relieve the United Kingdom, to a proportionate extent, of its dependence for food supplies on foreign nations.

The South African act of 1911 forbade the Postmaster General to enter into a mail contract with a steamship company which employed the deferred-rebate system. The Union-Castle Mail Line at present accordingly makes an annual agreement with the South African Trade Association, valid for one year but terminable on six months' notice, by which the exporters agree to ship entirely by the company's steamers and the company agrees to stability in freight rates fixed in the agreement itself. The British Imperial Shipping Committee recommended this agreement system as an optional alternative to deferred rebates for the consideration of British dominions and colonies generally.

RAIL CONVEYANCE OF MAILS

No later information has been received in respect of this contract. The estimates for the conveyance of mails contained in the budget for 1929-30 and 1930-31 carry an item of £200,600 (\$976,220) for this purpose "outside the Union." With the completion of the Cape-to-Cairo Railway the British mails for South Africa in time will doubtless be dispatched from England across the channel, by rail to Brindisi, thence to Alexandria, and from there on by rail. "In the meantime, however," it is pointed out in Government Aid to Merchant Shipping, "though the German pre-war subsidy of 1,350,000 gold marks (\$321,300) to the line to German East Africa, extended to Cape Town, has ceased and its steamers are surrendered and under the British or other Allied flags, the Netherland Government contracted in 1920 to advance 1,000,000 florins (\$402,000) annually for four years to establish a Netherland passenger steamship line to Cape Town and Durban, with the presumable patronage of the considerable non-British elements in the population of South Africa."

SOUTH AFRICAN SHIPPING BOARD

On June 1, 1929, a bill creating a South African Shipping Board became effective. This board was formed to more suitably, or more sufficiently serve the interests of South African shippers and to advise the Government of South Africa on questions of shipping.

There was much argument both for and against the bill, its proponents claiming that it would transfer control of freight and shipping matters from overseas (South African Trade Association in London) to South Africa, and its opponents protesting against the drastic powers delegated to the Government under this bill. The text of the act (No. 20 of 1929) establishing the South African Shipping Board, as printed in the Union Gazette Extraordinary April 3, 1929, follows.

LAW NO. 20 OF 1929

1. *Establishment of Shipping Board.*—(1) There shall be established as from a date to be fixed by the Governor General by proclamation in the Gazette a board to be known as the South African Shipping Board (hereinafter referred to as the board).

(2) The board shall consist of six members to be appointed by the Governor General. Three of such members shall be nominated by the Governor General, who shall not be members of the Public Service or of the Railways and Harbors

Services; and of the remaining three, one shall be nominated by the Association of Chambers of Commerce, one by the Federated Chamber of Industries, and one by the South African Agricultural Union: Provided that no person who is in the employ of or holds any office or share or interest in any shipping company shall be nominated by any such body, and that in the event of any such body failing or refusing to make a nomination or nominating a disqualified person the nomination of the member shall be made by the Governor General.

(3) The Governor General shall designate one of the members as chairman, who shall have a deliberative vote and, in the event of an equality of votes, a casting vote.

(4) The Governor General may appoint as additional members of the board, but without voting powers, not more than three persons in the employ of the Government or the Railways and Harbors Administration.

(5) The chairman and other members of the board shall be appointed for such periods and upon such conditions as the Governor General may from time to time determine.

2. *Function and duty of board.*—It shall be the function and duty of the board, subject to the provisions of this act and any regulations made thereunder, to investigate and report to the minister upon any matters relating to ocean transport to, from, or between Union ports, including more particularly any question—

(a) As to whether the rate of freight charged by any shipowner on any particular commodity exported from the Union is prejudicial to Union exporters as compared with their overseas competitors;

(b) As to whether the rate of freight charged by any shipowner on any particular commodity imported is unreasonably high, having regard to the rate of freight for that particular commodity operating on other ocean routes;

(c) As to failure on the part of a shipowner to give reasonable notice of changes in freight classifications or rates;

(d) As to the levying by any shipowner of differential freight or other charges as between one shipper and another in respect of the ocean conveyance of goods to, from, or between Union ports;

(e) As to differential or unfair treatment by any shipowner of any shipper in respect of the allocation of space accommodation or any other matter.

Such reports shall at the request of the board and with the approval of the minister be laid upon the table of both Houses of Parliament.

3. *Regulations as to meetings and powers of board.*—The Governor General may make regulations not inconsistent with this act—

(a) As to the manner in which the meetings of the board shall be convened, when and where meetings shall be held, and the notice to be given convening such meetings;

(b) As to the quorum necessary to constitute a meeting, the procedure at meetings, the manner in which minutes of meetings and other records shall be kept, and the manner in which the results of the board's deliberations shall be conveyed to the minister;

(c) As to the powers which shall be vested in the board to enable it to obtain such information and to perform such acts as may be necessary for the determination of any matter under consideration or for the due and proper fulfillment of the duties and functions assigned to it;

(d) Prescribing the information which shall be made or furnished by shipowners trading to, from, or between Union ports and the time when and the manner in which such information shall be furnished;

(e) Prescribing penalties which shall not exceed a fine of £100 for any contravention or failure to comply with any such regulation;

(f) Generally for the better carrying out of the objects and purposes of this act.

4. *Interpretation of terms.*—In this act "minister" means the Minister of Railways and Harbors or any minister of state acting for him; "Union" includes the mandated territory of South West Africa; "shipowner" means any person owning or for the time being having any control over or in respect of any ship engaged in the ocean transport of goods or passengers to, from, or between any ports of the Union, or having the control or disposal of space on any such ship.

5. *Short title.*—This act may be cited as the shipping board act, 1929.

The first board was established as of June 1, 1929, and issued its first report as of May 31, 1930. The report deals primarily with freight rates from and to Europe.

PREFERENCES AND RESTRICTIONS

RESERVATION OF THE COASTING TRADE

In respect to the coasting trade of the Union of South Africa American Trade Commissioner Samuel H. Day reported in June, 1929, that no laws or regulations restricting the coasting trade of South Africa to ships of dominion registry seemed to be in force; in other words, that this trade was open to ships of other nations. At present it is being handled by ships of British, German, Dutch, Italian, and American nationality.

VENEZUELA

Venezuela has only a few small ships engaged in the coastal trade, which is reserved to Venezuelan vessels for cargo traffic but not for passenger traffic. The Venezuelan Government may, and does, grant special permits for foreign vessels where special service is required.

Assistant Trade Commissioner O. R. Strackbein, Caracas, reported on September 13, 1929, that the coastal trade is an exclusive concession in favor of the *Compañía Anónima Venezolana de Navegación, Madrices a Ibarra*, of Caracas, which obtained this monopoly 20 years ago for a period of 25 years, with a possibility of extension. By this concession all rights of navigation are in the hands of this company and no one can legally operate any vessels in the coasting trade without its permission. Permits have been granted for the transportation of products belonging to the grantee, the latter binding himself not to engage in the freight or passenger traffic for others. The oil companies have obtained such permits for operating launches for their own use.

Under article 359 of the Venezuelan customs law of 1926 coasting trade between Venezuelan ports, in so far as freight is concerned, may only be carried on by ships registered under the Venezuelan flag. This section may be translated as follows:²¹

Coasting trade shall be carried on only in national ships, with the exception of traffic of passengers and their baggage, which may also be carried on in foreign ships.

Article 360 of the law specifies:

Coasting trade and foreign trade can not be carried on simultaneously by the same ship. The Federal Executive, in special circumstances, may concede permission for a passenger proceeding from one port of the Republic to another, in a ship engaged in foreign commerce, to take with his baggage samples of merchandise or determined national goods in small quantity.

Although it is not specified by law, in practice the Ministry of Hacienda occasionally grants a shipper permission to send goods from one Venezuelan port to another in a foreign vessel. To obtain such permission formal application must be made for each shipment. Nevertheless there is no real commercial traffic between ports of the country except in national ships. According to two of the principal steamship agencies in Caracas, the only occasions on which this special privilege is sought is in the case of shipments of automobiles, furniture, and household effects by private parties and for noncom-

²¹ Report of Commercial Attaché Halbert E. Watkins, Caracas, May 29, 1929.

mercial purposes, and in the case of Caracas banks when they forward currency to their branches in other cities of the Republic.

Therefore it may be said that the only coastal trade between Venezuelan ports is carried on in Venezuelan ships, either steam or sail.

YUGOSLAVIA

The new Kingdom of the Serbs, Croats, and Slovenes was admitted to participation in the control of the Danube by the extension of the jurisdiction of the International Danube Commission over the course of that river through Hungary, Austria, and Germany as far as Ulm. The new Kingdom likewise acquired the long eastern shore of the Adriatic from Fiume to Dulcigno (Ulcinj), with numerous ports. The maritime strength of the Austro-Hungarian Empire was centered at Fiume, Trieste, and Pola.

THE YUGOSLAV COMMERCIAL FLEET

GROWTH OF THE MERCHANT MARINE

Under the terms of the Trumbitch-Bertolini agreement of 1921 the merchant marine of the former Austro-Hungarian Empire was divided between Italy and Yugoslavia, the principal fleets being acquired by Italy, while approximately 100,000 gross tons went to Yugoslavia. The Yugoslav national tonnage has increased as follows:

TABLE 148.—GROWTH OF THE YUGOSLAV COMMERCIAL FLEET

Date	Gross register tons	Date	Gross register tons
DECEMBER 31—		JULY 1—	
1921.....	114, 388	1929.....	281, 396
1922.....	124, 721	1930.....	302, 481
1923.....	134, 430	1931.....	361, 606
1924.....	155, 255		
1925.....	173, 282		
1926.....	224, 718		
1927.....	257, 500		
1928.....	300, 000		

Sources: 1921-1928, report of Consul Leslie A. Davis, Zagreb, Mar. 30, 1929; 1929-1931, Lloyd's Register of Shipping.

About 90 per cent of the tonnage was owned by seven companies in 1928. The two leading ones, Jugoslavenski Americanska Lloyd and Atlanska Plovidba, owning, respectively, 23 and 19 per cent of the Yugoslav tonnage, were consolidated into the Jugoslavenski Lloyd in 1929, which company on July 1, 1931, was credited with 141,175 gross tons, or about 39 per cent of the total Yugoslav tonnage.

TRAMP SERVICES

Consul Stewart E. McMillan, Belgrade, stated in respect of the employment of tramp or charter tonnage:

Principal successes in the development of the Yugoslav merchant marine have grown from the traffic in freights without definite sailing schedules or sailing routes. The reasons for such success lie in the following factors:

Yugoslav companies usually purchase secondhand steamers cheaply; the crew is satisfied with smaller wages than are paid on American, British, or French vessels and is furthermore satisfied with primitive comforts and plainer food. On the other hand, transportation charges for goods are the same as on other vessels. Thus the profits of Yugoslav companies under low operating costs are considerable.

"It is to be noted however," Consul McMillan added, "that the only assistance of the Government to this shipping lies in freedom from taxes. No subsidies whatever are granted to them."

INLAND-WATERWAYS NAVIGATION

During 1927 and 1928 the inland waterways carried a traffic of 4,072,000 and 4,400,000 metric tons, respectively, this amount being among six rivers and three canals. Approximately two-thirds of this traffic was credited to the Danube and Tamish.

SUBSIDIZED SERVICES

COASTWISE SERVICES

While the coastwise trade of Yugoslavia does not have the importance it had while Trieste was in the same national territory as Fiume, the coastwise lines and those in the near-by foreign trades are the recipients of the subsidies paid by the Government. For these services the budget made the following provisions:

TABLE 149.—BUDGET PROVISIONS FOR SUBSIDIES TO YUGOSLAV COASTWISE AND NEAR-BY FOREIGN SERVICES, 1923-1930

Year	Budget appropriation		Year	Budget appropriation	
	Dinars	Equivalent in United States currency ¹		Dinars	Equivalent in United States currency ¹
1922-23.....	13,750,000	\$163,900	1926-27.....	30,271,935	\$533,700
1923-24.....	11,250,000	130,600	1927-28.....	36,360,000	639,900
1924-25.....	39,999,586	598,400	1928-29.....	40,000,000	703,300
1925-26.....	39,936,173	706,500	1929-30.....	40,000,000	704,000

¹ Converted at the average rates of exchange for the fiscal years named.

On March 10, 1929, the Government signed an agreement with four Yugoslav companies which stipulated 49,500,000 dinars (\$871,200) as the annual subsidy, for which the companies are obliged to maintain certain frequency of service and to cover certain mileage. The agreement, Consul Leslie A. Davis, Zagreb, states, is valid for 10 years.

OVERSEAS SERVICES

On August 25, 1930, Consul Paul Bowerman, Zagreb, reported the conclusion of 10-year contracts for subsidized liner services between Yugoslavia and South American ports, Spain, the Levant, and Canary Islands, between the Jugoslavenski Lloyd and Oceania Steamship Cos. and the Yugoslav Government. The contracting

companies agreed to purchase 10 vessels, and the Government undertook payment of a subsidy of 14,500,000 dinars (about \$255,200) annually for 10 years.

PREFERENCES AND RESTRICTIONS

RESERVATION OF THE COASTING TRADE

Regarding reservation of the coasting trade to vessels of Yugoslav registry, Consul W. Perry George, Belgrade, reported in June, 1929:

Coastwise navigation is reserved under the laws of the Kingdom of the Serbs, Croats, and Slovenes to domestic shipping. Domestic shipping exclusively engaged in coastwise trade is exempt from port duties for each arrival, but is subject to an annual subscription per net ton of 5 dinars for ships below 100 tons net or 20 dinars for ships over 100 tons net.

Domestic shipping authorized to navigate only on the Adriatic and tributary streams is exempt from port duties, but subject to a subscription of 40 dinars per net ton per annum—as is also foreign shipping of treaty nations.

Domestic shipping engaged exclusively in coastwise navigation enjoys additionally the following privileges: (1) No manifests are required; (2) no customs documents are required; (3) "dead harbors" may be visited; (4) merchandise and passengers may be embarked, day or night, without the supervision of customs.

Apart from the above-mentioned privileges enjoyed exclusively by national shipping in coastwise navigation, all foreign vessels are assured the same treatment in Yugoslav ports as that accorded domestic ships.

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