

# Germany's Capacity to Pay

By H. G. Moulton and C. E. McGuire

With the aid of the Council and Staff of the Institute of Economics

**T**HIS study made by the Institute of Economics is animated by a desire to get at the facts without prejudice or bias, regarding Germany's capacity to pay.

It is based upon an exhaustive study by the authors of official and other data bearing on the reparation problem.

The book answers conclusively most of the questions with reference to Germany about which there is so much controversy today.

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# GERMANY'S CAPACITY TO PAY

*A Study of the Reparation Problem*

BY  
HAROLD G. MOULTON  
AND  
CONSTANTINE E. MCGUIRE

WITH THE AID OF THE COUNCIL AND  
STAFF OF THE INSTITUTE OF ECONOMICS

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## PREFACE

NEARLY everybody now recognizes that there can be no genuine settlement of the reparation problem until those who are responsible for its solution reach general agreement on the economic facts and forces involved. It has been repeatedly suggested that a commission of business men and economists should be created for the purpose of making an impartial analysis of the extent of Germany's capacity to meet her reparation obligations. For various reasons no such commission has been appointed; and in the meantime the reparation situation has gone from very bad to worse, leaving public opinion at this crucial period to be formed mainly on the basis of conflicting statements and misinformation.

The Institute of Economics has felt that this situation has afforded an opportunity to render a distinct public service. The Institute has not been hampered by lack of time or facilities, and has accordingly not been content with any superficial gathering of data and opinion. The findings which it submits in this volume are believed to be as conclusive and trustworthy as would be those of any commission. No discussion of the political aspects of the problem is attempted, nor is any detailed plan of settlement recommended. The purpose has been merely to make as complete a diagnosis as possible of Ger-

many's economic condition and of her ability to continue making reparation payments, and to point out the bearing of international trade conditions and commercial policies upon any reparation settlement whatsoever.

The reader will no doubt wish to know the sources of the data on which the analysis is based. Germany's problem involves both budgetary and foreign trade considerations. On the budgetary side the figures used are official figures of the German government. Since agents of the Reparation Commission, located in Berlin, have had access to the German records and have made no report of any attempt to falsify the figures, they may be accepted as a trustworthy statement of the budgetary situation. The foreign trade figures are also official figures of the German government. Inasmuch as German exports appear as imports in the trade returns of other countries, and German imports appear as exports in the figures of other countries, it is clear that any wholesale attempt to falsify the foreign trade data could be readily detected. For internal production figures, official sources have likewise been employed. Use has also been made of many reports and documents consulted at the United States government departments and obtained through the foreign connections of the Institute. Specific source references are given in the book, particularly when the subject is in any way controversial. In order to relieve the main discussion of detailed technical analysis, much of the latter has been placed in the several appendices.

Acknowledgment must be made for assistance rendered to the authors by other members of the Institute. Cleona Lewis has made valuable contributions, particularly in Chapters II, III, and VII, and has written Appendices A and B. Florence A. Armstrong has rendered a similar important service, especially in Chapter IV. Constant Southworth has been of much assistance, particularly in Chapters III and V. Valuable criticisms and suggestions have also been made by the Council and by other members of the staff of the Institute. Dr. R. Kuczynski has checked all the statistical data used in the text and has made many valuable suggestions, especially with reference to Chapters III and V.

WASHINGTON, D. C.  
June, 1923.

HAROLD G. MOULTON,  
*Director.*

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## APPENDICES



## APPENDIX A

### GERMANY'S INTERNATIONAL TRADE AND FINANCIAL ACCOUNTS

AVAILABLE data on which to base a connected story of Germany's commercial and financial relations with the rest of the world are far from satisfactory. Until the outbreak of the war, the movement of commodities and of specie and bullion was recorded at the custom-houses and was officially reported by the German government in its trade publications. But during the war the publication of such data was discontinued, and was not regularly resumed until May, 1921. For the years 1919 and 1920, and for the first four months of 1921—as well as for the war years—consecutive official trade figures were not published. Fortunately, estimates have been made for these years that are generally accepted as being as nearly accurate as the unsettled state of Germany's foreign commerce will permit. These are stated in an article by von Glasenapp, Vice-president of the Reichsbank, in the *Manchester Guardian Commercial Reconstruction Series*, while corresponding estimates are also published in other recent studies. For the invisible items that enter into the international balance of payments there is, of course,

no official source of information; and the estimates that are available are on the whole neither complete nor convincing.

#### I. TRADE AND SPECIE STATISTICS FOR PRE-WAR YEARS

The German trade statistics for pre-war years are reasonably reliable and furnish a valid basis for year-to-year comparisons of Germany's exports of domestic produce and imports of goods for home consumption. This is true for the years 1894-1913 in spite of the fact that in 1906 considerable changes were made both in the territory covered by the reports and in the commodity classification; that during this period the list of commodities covered by the returns was slightly changed; and that altogether the basis on which the trade was valued is open to certain criticisms.<sup>1</sup>

The German trade statistics are compiled to show: (a) The *general trade*, which is given only in terms of volume and by the two broad classes, total imports and total exports; (b) the *gesamteigenhandel*, or *total-trade-proper*; (c) the *special trade*. Both (b) and (c) are given in terms of value as well as volume with imports and exports classified into five broad commodity groups, and also according to commercial source or destination, and itemized for a long list of commodities. The figures for the general trade

<sup>1</sup> The facts with reference to German trade statistics here presented are largely taken from the *Statistische Jahrbücher*. Additional information has been furnished by M. L. Jacobson, statistician of the Federal Reserve Board. Cf. J. J. Kral, "Methods of Computing Values in Foreign Trade Statistics."

include *all* goods brought into or shipped out of the German economic union, including the transit trade. Goods classed as transit trade are those which are shipped through the country in bond—in sealed cars not opened while within the German borders. The total-trade-proper does not include the transit trade, but otherwise covers the same imports and exports as the general trade. The special trade and the total-trade-proper also differ slightly in certain ways.

1. The imports are recorded as special trade imports only after they have come through customs, and after the duty has been collected on such as are subject to duty. They are recorded in the *Gesamt-eigenhandel* statistics at the time they enter the custom-house. The difference involved here is one of time, rather than of quantity and value. For the purpose of making comparisons of the total of German trade over a considerable period of time, therefore, it makes little difference whether the special trade or total-trade-proper figures are used. For single years, however, the amounts may differ from one another because of the time lag in the special trade.

2. Goods for consumption brought into any part of the economic union are shown in the figures for both the special trade and the total-trade-proper. Of commodities brought in for the purpose of being put through some manufacturing process (the *Veredelungsverkehr* or improvement trade), the special imports include only those that are for German consumption, and only those that are brought into such parts of the economic union as are subject to the German tariff law. The total-trade-proper in-

cludes all of the improvement trade—whether for German consumption or for re-export—of the whole economic union.

Goods for further manufacture and for re-export which are brought into the free port of Hamburg, for example, appear in the total-trade-proper as imports of raw materials or partly manufactured goods and again as exports of manufactures, but are not included in the special trade figures. Such of these "improvement trade" exports as go from Hamburg into parts of the economic union subject to the German customs law are recorded at the place of entry, both in the special trade and in the total-trade-proper, as imports of manufactured goods from foreign countries. The result of this difference in method is unimportant, so far as the trade totals are concerned. So far as commodity groups are concerned, imports of raw materials appear larger in the case of the total-trade-proper; imports of manufactures appear larger in the case of the special trade.

Whether for purposes of comparison it is best to use the special trade or the total-trade-proper is a minor question on which authorities do not agree. In this study the special trade figures have been used, the reason for the choice being expediency. The special trade figures are the ones currently published by the government, while the total-trade-proper is not published until the annual report for the year is issued.

*In 1906 certain territorial and classification changes were made that affected the German trade statistics.*

Prior to March 1, 1906, the territory covered by the trade returns was the *Zollgebiet* or customs union. This territory included the German Empire (with the exception of the free ports of Hamburg, Cuxhaven, Bremerhaven, and Geestemunde, the island of Helgoland, and certain small districts on the Swiss border) and included also the grand duchy of Luxemburg and two Austrian communities—Jungholz and Mittelberg. In 1906 the territory covered by the trade statistics was enlarged to include the four free ports named above—although for customs-tax purposes these ports were still outside the union—and from that time was known as the *Wirtschaftsgebiet* or economic union. The special trade figures, however, are little affected by this change in territory. There is an increase in the figures because they now include the special imports for consumption and the exports of domestic production of the four free ports. There is a decrease because the trade between these free ports and the rest of the economic union, except the improvement trade, mentioned above, was no longer shown as foreign trade. The increases practically balance the decreases so far as total imports and total exports are concerned, though there was some slight shifting as between commodity groups.

In 1906 a change was also made in the commodity classification in order to make it agree with that in the 1902 tariff law, which at this time was becoming effective. But while these changes in classification raise difficulties in the way of detailed comparisons of the trade in *certain classes* of commodities before

and after 1906, they should not stand in the way of comparisons of the *total* trade as reported for these years. This statement obviously also applies to some lesser classification changes that have been made since 1906. Another change concerned the goods covered by the returns. Shipbuilding materials brought in for the construction or repair of sea-going vessels, and also foreign goods shipped for use as stores on outgoing German vessels were recorded as imports. Against this increase in imports there was a decrease because of the fact that fish caught by German ships and crews and the manufactures therefrom, were no longer recorded as imports. The net result of these changes was relatively unimportant.

Until the end of April, 1909, the value of German trade, except in the case of a limited number of commodities, was determined on the basis of a schedule of estimated values prepared by the Advisory Board for Commercial Statistics in annual session. Beginning with May 1, 1909, declared values instead of estimated values were required in the case of 32 items of imports and 1,336 items of exports; and since April 1, 1911, declarations of value were required for all exports and for 60 numbers of the import schedule. The value of other imports were, until in 1921, calculated on the basis of official valuations established generally for certain kinds of goods or separately for each country of origin. The declarations also were checked by the Advisory Board. It is difficult to say what effect these changes had on the totals reported. It is important to notice,

however, that in one respect the method of valuation remained unchanged—the values reported were practically frontier values, or in other words, exports were reported as f.o.b. frontier, imports c.i.f.<sup>1</sup>

The fact that the trade is valued at the German frontier necessarily means that there is uncertainty with regard to the value that should be set on goods brought in on consignment and on exports sent to foreign markets on consignment. In either case it is impossible to determine at the German frontier exactly what the proceeds of the goods will be. Nothing better than estimates were to be had in the case of consignment goods, whether valuations were based upon traders' declarations or upon official estimates. But what is true in this respect with regard to exports is likewise true of imports, and vice versa. Any understatement in the one because of failure to make a proper allowance for profit or loss is in all probability balanced by a like underestimate in the other. All in all, a careful study of the German trade statistics for pre-war years leads to the conclusion that they furnish a basis for valid year-to-year comparison of the special trade.

## II. THE INVISIBLE ITEMS

It is practically impossible to determine year by year and item by item, the amounts of income which Germany received from invisible sources. It is known, however, that they were sufficient not only to meet her adverse trade balance, but also to yield

<sup>1</sup> F.o.b. = free on board; c.i.f. = cost, insurance, freight.

a surplus which she invested abroad. In a general way it is known what invisible resources Germany possessed, and some estimates are available for certain years with regard to the probable income received on account of certain of the items.

*In the pre-war account, interest on accumulated German investments in foreign countries was the largest of the invisible items.* To determine the amount of the interest received or receivable by Germany year after year, one of course needs to know (a) the average interest rate applicable to Germany's foreign investments, and (b) the net investment, year by year, on which interest was due—allowance being made for foreign holdings of German securities. With regard to the average interest rate, Sir George Paish found as the result of careful study that the average yearly rate of return on English foreign investments was approximately 5 per cent.<sup>1</sup> In estimating German earnings on capital invested abroad Riesser assumes an average rate of 6 per cent on proprietary and partnership investments and 5 per cent on securities.<sup>2</sup> Crammond<sup>3</sup> and von Glasenapp<sup>4</sup> used an average rate of 5 per cent for all investments. Pupin<sup>5</sup> uses a  $4\frac{1}{2}$  per

<sup>1</sup> *Journal Royal Statistical Society*, January, 1911, pp. 168-172.

<sup>2</sup> "The German Great Banks and their Concentration" (*Report of the National Monetary Commission*), p. 546.

<sup>3</sup> *Journal Royal Statistical Society*, July, 1914, p. 798.

<sup>4</sup> *Manchester Guardian Commercial, Reconstruction in Europe*, sect. 1, p. 28.

<sup>5</sup> *La Balance Economique de la France, Journal Société de Statistique de Paris*, 1916, pp. 393-404.



cent average in estimating the French pre-war interest income. From a study of these writers it seems reasonable, therefore, to estimate Germany's pre-war interest income at 5 per cent on the net amount of her foreign investment.

It is, however, impossible to state the precise amounts of the net foreign investments which actually stood to Germany's credit in *each* of the 20 years before the war. Available estimates vary widely in amount, and, practically without exception, they refer to isolated years. It is therefore difficult to know to what extent the variations between different estimates may be taken as evidence of actual changes in Germany's holdings of securities over a given period; to what extent they are due to the fact that it is often not clear whether an estimate is intended to show the total German foreign investment, or whether it is a net figure in which allowance has been made for foreign ownership of German securities and enterprises; and to what extent they represent merely a difference in the degree of optimism with which different estimators looked at the problem. The table below, citing a considerable number of the estimates that have been made, shows clearly that these estimates will not serve as a satisfactory basis for determining year by year the interest which Germany received from her foreign investments.

The explanation of the high estimates for 1909 and the exaggerated Müller estimate for 1913 will be found on p. 280.

## ESTIMATES OF GERMAN FOREIGN INVESTMENTS

Year	Billions of Marks	Authority
1892	10	Schmoller <sup>2</sup> , <sup>3</sup>
	13	Christians <sup>3</sup>
1892-93	15	Von Miquel, estimate for Prussia alone <sup>4</sup>
1893-94	12	Koch <sup>5</sup>
1905	25	Ballod <sup>6</sup>
	24 to 25	Imperial Marine Office <sup>6</sup>
	26	Halle <sup>5</sup>
	24 to 25	Riesser <sup>5</sup>
1906	16	Koch <sup>2</sup>
1909	30	Crammond <sup>6</sup>
	30	Steinmann-Bucher <sup>1</sup>
1912	20	Crammond <sup>7</sup>
1913	20	Helfferich <sup>8</sup>
	20 to 25	Kurt Singer <sup>9</sup>
	35	August Müller <sup>10</sup>
Outbreak of the war	20	C. K. Hobson <sup>11</sup>
	30	Paish <sup>12</sup>
	21	Hans David <sup>3</sup>
1914	25	Ballod <sup>3</sup>
	25	Pistorius <sup>3</sup>
	25	Steinmann-Bucher <sup>13</sup>
	18.26	Census taken by the German government <sup>14</sup>

<sup>1</sup> STEINMANN-BUCHER, A, "350 Milliarden Deutsches Volksvermögen," pp. 44-47.

<sup>2</sup> Cited in STEINMANN-BUCHER, *Ibid.*

<sup>3</sup> KEYNES, J. M., "Economic Consequences of the Peace," p. 175.

<sup>4</sup> Cited in RIESSER, J., *The German Great Banks and their Concentration* (Report of the National Monetary Commission), p. 803.

<sup>5</sup> RIESSER, *Ibid.*, p. 546.

<sup>6</sup> *Journal Royal Statistical Society*. In his comments on a paper presented by Sir George Paish, September, 1909, p. 483.

<sup>7</sup> *The Economic Relations of the British and German Empires*, *J. Roy. Stat. Soc.*, July, 1914, p. 803.

<sup>8</sup> HELFFERICH, KARL, "Germany's Economic Progress and National Wealth, 1888-1913," pp. 112-113.

<sup>9</sup> *Wirtschaftsdienst*, July 7, 1922, pp. 660-661.

*Income from shipping was the invisible item of second importance in Germany's pre-war accounts.* Shipping earnings as they appear in the international balance of payments of a country should show the net income which the country receives from other nations for the services of its merchant shipping. It is the country's net receipts—not the aggregate income of her shipping companies—that furnish her with a means of paying her foreign obligations. From this it will be seen that the figure should not include government subsidies to shipping, nor any other income which the shipping companies derive from the people of the country concerned. It should exclude freights paid on imports, for the reason that freight charges become a part of the selling price of commodities and are paid by consumers in the importing country. It should exclude expenditures made in foreign ports by the country's ships or crews, but should include expenditures of foreign ships and crews in the country's own ports. Clearly, it should include freights earned on exports, for these are paid by foreign consumers; and likewise, all freights earned by ships serving as common carriers between foreign ports.

In the case of shipping, as in the case of interest

<sup>10</sup> The European Payment Balance, *Reconstruction*, February–March, 1922–23, p. 218.

<sup>11</sup> HOBSON, C. K., British Oversea Investments, *The Annals of the American Academy of Political and Social Science*, Vol. 68, p. 32.

<sup>12</sup> PAISH, G., The Economic Outlook in Europe, *Contemporary Review*, September, 1919, p. 255.

<sup>13</sup> STEINMANN-BÜCHER, A., "Deutschlands Volksvermögen im Kriege," Second ed. Stuttgart, 1916, p. 10.

<sup>14</sup> *Wirtschaft und Statistik*, no. 2, 1923, p. 64.

income, no thoroughgoing study has been made of the German situation. There is, however, a round about method of arriving at figures that will roughly serve the present purpose. C. K. Hobson has published in his "Export of Capital" an estimate of British shipping earnings for each of the 33 years, 1870-1912; and other estimates are available for later years. These figures together with a comparison of British and German tonnage statistics year by year serve as a basis for determining what the German earnings probably were—and as a matter of fact figures computed on this basis check fairly closely with the estimates that have been published for certain pre-war years.

Hobson points out that the methods which he used in calculating British shipping earnings give a figure which includes not only freights earned on exports from Great Britain, but also freights on imports into Great Britain. His estimate of shipping earnings is therefore too high because it includes freights paid to British shipowners for the carriage of goods consumed in Great Britain, which in the last analysis means freights paid to British shipowners by British consumers. However, a compensating error appears in the British trade statistics. British imports are valued on a c.i.f. basis (exports, f.o.b.), thereby showing as a national expenditure for imports not only the price paid to the foreign exporter but also charges for insurance and freight, part of which were paid by British consumers to British agents and companies. In the international balance of accounts the overstatement in earnings is set against the overstatement

in expenditures, so that neither error is carried into the net balance of payments.

Now, since the German trade statistics also show imports valued c.i.f. and exports f.o.b., a method of estimating shipping earnings which will cancel the error involved in the trade figures should be used for Germany as well as for Great Britain. This leads to the conclusion that in the absence of other data from which to work, one might use the British estimates as a basis for a rough determination of what Germany's shipping earnings probably were. In doing this, of course, one will have to assume that British and German ships were operated with practically equal efficiency—not an unlikely assumption, except for the fact that the German merchant marine contained a somewhat larger proportion of sailing tonnage than the British.

The table below is compiled to show: (1) The total steam and sailing tonnage, ships of 100 gross tons or over, of both Germany and the United Kingdom as reported in *Lloyd's Shipping Register*; (2) German tonnage as a percentage of British tonnage; (3) estimated British earnings; (4) estimated German earnings, based on the British figure. Because of the fact that there are some ships not registered with Lloyd's, a comparison was also made between the total tonnage shown on the national register of the United Kingdom and Germany. For the United Kingdom this report includes all ships of 15 tons and over; for Germany, ships of 17½ tons and over. It made very little difference in the ratio, however, whether Lloyd's figures or those from the national registers were used.

## ESTIMATED GERMAN SHIPPING EARNINGS

Year	Merchant Tonnage (in thousands of gross tons)		German Tonnage as a Percentage of British Tonnage	Earnings (in millions of marks)	
	British	German		British *	German
1894	11,807	1,785	15	1,040	160
1895	12,118	1,886	16	1,004	160
1896	12,294	1,944	16	1,080	175
1897	12,404	2,030	16	1,154	185
1898	12,588	2,114	17	1,310	225
1899	12,927	2,454	19	1,290	245
1900	13,242	2,650	20	1,526	305
1901	13,656	2,905	21	1,200	255
1902	14,431	3,138	22	1,200	265
1903	14,890	3,283	22	1,290	285
1904	15,391	3,370	22	1,320	290
1905	15,803	3,565	23	1,450	335
1906	17,611	3,811	22	1,700	375
1907	16,999	4,111	24	1,800	435
1908	18,710	4,232	23	1,580	365
1909	17,378	4,267	25	1,660	415
1910	17,517	4,333	25	1,900	475
1911	17,873	4,467	25	2,000	500
1912	18,214	4,629	25	2,000	500
1913	18,696	5,082	27	2,000	540
1921	19,772	717	4	1,700	68
1922	19,296	1,888	10	1,800	180

\* For the years 1894-1910, C. K. HOBSON, "Export of Capital," p. 187. For 1913 and 1920, C. K. HOBSON, *Economica*, May, 1921, pp. 144 and 146. For 1911 and 1912 the same figure is used as for 1913 in preference to the figure given in the "Export of Capital," because Hobson himself says that the figures he gives for these years are probably too large. For 1921, estimate is based on the 1920 estimate generally accepted, on the *Statist* freight rates index and on comparison of 1921 volume of trade with that for 1920 and for 1922, *Manchester Guardian Commercial, Annual Review*, 1922, p. 141. The figure is placed higher than this in certain other estimates.

Hobson's method of estimating the shipping income of the United Kingdom takes into account three factors: total tonnage; current freight rates; and the efficiency of shipping, which depends partly on the speed of ships, and partly on the comparative amounts of steam and sailing tonnage on the register at a given time. The first of these has been taken into consideration in the above attempt to estimate German earnings. So far as the second is concerned, differences in ocean freight rates between British and German ships were never likely to persist long, because of the keen competition in shipping. The third factor has been disregarded. If taken into account it would probably tend to lower the estimated German income. Admittedly the figures arrived at are rough approximations. They nevertheless agree reasonably well with estimates which various writers have made from time to time, several of which are cited in the following table.

ESTIMATES OF SHIPPING INCOME

Year	Millions of Marks	Authority	Reference
Before 1900	300	Halle, Ernst	"Volks- und Seewirtschaft," p. 69
1906	300	Riesser, J.	"Die deutschen Grossbanken," p. 128
1907	350	Zagorski, S. O.	"Voyna Poslye Mira" (War After Peace), p. 17
1907	360	Crammond, E.	<i>Journal Royal Statistical Society</i> , July, 1913, p. 798
1912	600	Crammond, E.	<i>Ibid.</i> , p. 798
Pre-war	500	Rist, Charles	"Les Finances de Guerre de l'Allemagne," p. 283

*Practically no estimates and no data on which to base estimates are available with regard to the other invisible items.* Crammond estimated the German income from banking, insurance and commissions at about 200 million marks for 1912. For the same year C. K. Hobson estimated the British income from this source at 598 million marks. The estimates that have been made of the annual earnings of the United Kingdom from this source would give a rough indication of the German income.

The highest estimate made with regard to the annual earnings of German railways and canals from carrying goods for other countries is that of Dr. August Müller,<sup>1</sup> who sets the pre-war figure at 120 million marks. A French estimate places it at 100 million marks. In 1913 the total railway receipts from freight traffic were 2,046 million marks and the average yearly receipts for the period 1909-1913, inclusive, were 1,874 million marks.<sup>2</sup> In view of the fact that the greater part of the transit trade is carried by rail rather than by water, it would seem that the foregoing estimates of German receipts from the transit trade were probably somewhat overstated. Von Glasenapp estimated that in 1913 Germany received from international freights (rail and water) and from banking transactions about 1 billion marks.<sup>3</sup>

<sup>1</sup> The European Payments Balance, *Reconstruction*, February-March, 1922-23, p. 218.

<sup>2</sup> SNOW, C. D., German Foreign-Trade Organization, U. S. Department of Commerce *Miscellaneous Series*, 57, p. 153.

<sup>3</sup> *Manchester Guardian Commercial*, *Reconstruction in Europe*, sect. 1, p. 28.



With regard to earnings from the tourist trade, Riesser says that these are "more than fully offset by the corresponding foreign earnings on account of Germans travelling abroad."<sup>1</sup> Von Glasenapp estimates that the migratory laborers in Germany in 1913 totalled about 700,000, and that through them probably 400 million marks were taken out of the country. The income from the tourist trade, he estimates, practically balanced the sums spent by Germans travelling abroad.<sup>2</sup>

Estimates concerning the other invisible income and expenditures of Germany, mentioned on page 12 of the text, are not to be had.

If one attempts to base a judgment of the German balance of payments on the estimates presented above, the result is not altogether satisfactory. The figures obviously are too rough to be used in calculating the balances year by year, and even when 5-year averages are used to smooth out the yearly variations in the trade and specie balance, the figures lead to negative rather than positive conclusions. In view of the fact that it is known that Germany actually was slowly accumulating investments abroad, it is quite evident that some of her sources of income are not accurately measured or are altogether overlooked in the estimates given. In any event it appears that Germany's international investment position was not so strong as commonly supposed. Various writers point out that she was borrowing in the short-time money markets of other countries. See pp. 273-77.

<sup>1</sup> "The German Great Banks," *ibid.*, p. 541.

<sup>2</sup> *Manchester Guardian Commercial*, *ibid.*

In making up the following table we have used the adverse trade and specie balances calculated from the official returns (see p. 264); shipping returns as shown on p. 27; and interest income estimated on the assumption that at the beginning of the 20-year period in question the net investment abroad was 12 billions, at the end of the period 20 billions, and that the amount annually invested abroad was greater in the earlier than in the later years (see p. 269). We have estimated German earnings of banking, insurance, etc., at about one-third the British earnings from this source; and we have set figures for earnings from the inland carrying trade, and for sums carried out of the country by migratory laborers, using as a basis the few estimates available.

GERMANY'S AVERAGE BALANCE OF PAYMENTS

(Averages, in millions of marks)

Years	Invisible Items					Favorable Balance (Invisible Items)	Adverse Balance (Commodity and Specie)	Net Payments-Balance
	Shipping	Interest	Inland Carrying Trade	Commissions etc.	Migratory Workers			
1894-1898	190	685	50	90	.....	1,000	987	+ 13
1899-1903	270	800	65	125	.....	1,260	1,073	+187
1904-1908	355	895	80	170	-150	1,350	1,472	-122
1909-1912	475	965	100	200	-250	1,490	1,842	-352
1913	540	1000	120	340	-400	1,600	1,008	+592

The plus sign indicates favorable, the minus sign unfavorable items.

In the above table an average for the 4 years 1909-1912 is shown instead of a 5-year average for

the years 1909-1913. This is done because the year 1913 was so exceptionally favorable that the inclusion of it in the average blurs what the figures have to show with regard to the trend of Germany's international balance. The year 1913 is shown separately for comparison. In the whole 20-year period under consideration, there had been only 3 other years in which the adverse commodity and specie balance had been as low as it was in 1913. It is this one item alone which makes the great difference between the average net payments balance for the 5 years and that for the 4 years. The effect of including it in the average is to cut in half the net payments balance against Germany. Even if the average of the favorable invisible items is assumed to be the same for the 4- as for the 5-year period the average net balance of payments against Germany for the 4 years would still be twice as great as that for the 5 years—332 million marks as against 165 millions.

*The figures in the table indicate that the annual amounts which Germany had available for investment abroad were decreasing rather than increasing.* These figures, of course, lay no claim to precision, and yet there is no glaring omission or understatement in them. As they stand, they give strong confirmation to the statement frequently made before the war that the sums which Germany was annually investing abroad were gradually decreasing in amount. The adverse commodity and specie balance was growing faster than the favorable balance from the invisible items.

However, if it were possible to prove that the total for the favorable items were understated by 100 million, or even by 200 million marks a year, the average annual figure standing in Germany's favor, after deductions had been made for the adverse commodity and specie balance, would not be very impressive. Even if we should assume that the favorable invisible balance were as much as 300 million marks greater each year than the table indicates, the net payments balance available for new investments abroad, would not have furnished the means for any great expansion of Germany's foreign holdings.

*A complete estimate of the balance of payments has been attempted by a few writers. These estimates are presented below for whatever evidence they contain.*

1. EDGAR CRAMMOND'S ESTIMATE FOR THE YEAR 1912 \*

(In millions of marks)

Credits		Debits	
Exports of manufactures, etc. ....	9,634	Imports of commodities.	11,572
Exports of precious metals. ....	143	Imports of precious metals. ....	326
Interest on capital invested abroad. ....	1,000	Capital invested abroad during 1912. ....	260
Earnings of German shipping and transport generally. ....	600		
Earnings of German banking, insurance and mercantile houses engaged in foreign trade. ....	200		
	<hr/> 11,627		<hr/> 12,158

\* *Journal Royal Statistical Society*, July, 1914, p. 798.

An examination of this account shows that:

(a) The trade figures given are for the *Gesamteigenhandel*. If special trade figures are substituted—imports, 10,692 million marks; exports, 8,957 million marks—the result is to increase the debits by 153 million marks.

(b) No allowance one way or the other is made for the tourist trade and migratory labor.

(c) As it stands, the account shows that, aside from the proceeds of borrowing operations,<sup>1</sup> which Crammond must have considered but does not indicate, Germany had no income for investment abroad in the year 1912. In fact, the credits did not equal the debits, leaving out of the debit accounts the item "capital invested abroad."

## 2. ESTIMATE OF F. S. SCHMIDT, FOR THE YEAR 1913 \*

(In millions of marks)

Credits		Debits	
Exports of manufactures, etc. . . . .	10,892	Imports of commodities. . . . .	11,655
Interest and profits from international enterprises and capital investments. . . . .	1,250		
International travel. . . . .	.....	International travel. . . . .	.....
		Short-term money credits	200-300
	12,142		11,855-11,955

\* "Internationaler Zahlungsverkehr und Wechselkurse," p. 392.

<sup>1</sup> On this, see pp. 273-77.

This estimate is obviously very rough and incomplete:

(a) In this, as in Crammond's estimate, the *Gesamteigehandel* figures are used.

(b) It shows a figure of 200-300 million marks for short-term money credits—an item that is often referred to by writers on the subject of the German balance, but is practically never put into figures. (For further consideration of this item, see p. 274.)

(c) It leaves out of the reckoning the bullion and specie movement, which increased Germany's net adverse balance in 1913 by 335 million marks. It also leaves out the tourist trade; the receipts from the carrying trade; earnings from banking, insurance, commissions, and from other minor items that together probably amount to a considerable sum in Germany's favor.

### 3. VON GLASENAPP'S ESTIMATE FOR THE YEAR 1913 \*

(In millions of marks)

Credits		Debits	
Exports of commodities	10,097	Imports of commodities	10,770
Interest on foreign investments.....	1,000- 1,250	Migratory laborers took away about.....	400
International freights and banking transactions.....	1,000	Available for investment abroad.....	927- 1,177
	12,097- 12,347		12,097- 12,347

\* *Manchester Guardian Commercial, Reconstruction in Europe*, sect. 1, p. 28.

(a) Von Glasenapp, like Schmidt, leaves the bullion and specie movement out of consideration. If this is included, the sum available for investment abroad is cut to between 600 and 850 millions. It might perhaps be argued that the bullion and specie should not be included in arriving at a net payments balance—the basis for such an argument being that Germany had a choice of using the proceeds of her exports either for investments abroad or for importing gold. This argument, however, would apply not only to gold but to all imports. Germany is not a gold-producing country, and in order to get the gold which she needed for monetary purposes and for use in the arts she had to import it. That her accounts show year after year a net importation of gold indicates a need for gold imports pressing enough to outweigh the alternative choice of increasing foreign investments and the resulting increase of interest returns.

*Germany was a borrower in the short-time money markets of the world.* This fact explains to some extent the discrepancy between the average amounts which the above table of estimates shows she had available for investment, and the average amounts that it appears she actually was investing abroad. If these short-time borrowings had been liquidated within a reasonably short period of time, and if they had been contracted to provide current funds for the financing of the commodity trade, the matter would not warrant consideration here. The fact is, however, that frequently these borrowings were renewed again and again. This does not mean that

as a rule the renewals were made with the bank which had granted the original loan. On the contrary, each loan was paid as it fell due, but it was paid from the proceeds of a new loan from some other source. A borrower from Bank A in London, for example, paid the loan when due from new credits extended to him by Bank B, located perhaps in London, perhaps in Paris or Amsterdam. Thus, directly or indirectly, these loans furnished Germany with part of the funds which she used for foreign investments.

In his "Internationaler Zahlungsverkehr und Wechselkurse," Dr. F. S. Schmidt<sup>1</sup> points out that statistical information concerning short-time credits is almost entirely lacking for the obvious reason that, as a rule, few people have cognizance of such transactions. He quotes one estimate, however, which is given in Schwarz's "Diskontpolitik" (1911), p. 122, to the effect that of the 500 or 600 million marks of short-time credits extended each year, from 200 to 300 millions were not based on merchandise transactions but represented pure money borrowings. These sums were borrowed principally in France and Great Britain, where the rates were comparatively low. Whether or not the figures which he gives are reliable is a matter of less importance than the fact which he states. A great deal of light is thrown upon Germany's financial position by the fact that she was borrowing in the short-time markets where interest rates were low and was using the proceeds to

<sup>1</sup> Pp. 28 and 393.



finance undertakings in countries where interest rates were high.

Dr. Kurt Singer,<sup>1</sup> in an article dated July 1, 1922, also contends that before the war Germany exceeded her economic capacity in her foreign investments, a theory which he says was often maintained in German conservative circles in pre-war days. In referring to von Glasenapp's estimate of the 1913 balance of payments, he says that while in 1913 Germany may have had a credit balance of 1 billion marks, in the four previous years her accounts barely balanced. To show that during these and many other pre-war years, the increase in her foreign investments was made possible only by contracting short-dated obligations in the richest money markets, he calls attention to the rates at which mark drafts drawn in these markets were discounted in Berlin.

The table on p. 276, taken from his article, shows the number of days in which mark bills<sup>2</sup> of exchange were above par, at par, and below par, as compared with sterling, francs, and guilder. The figures are Berlin quotations.

During the fifteen years under consideration, the mark steadily depreciated, indicating, according to Singer, that the balance of payments was gradually growing less and less favorable. Owing to the ever-increasing pressure caused by the home demand for

<sup>1</sup> Die deutsche Auslands-Verschuldung, *Wirtschaftsdienst*, July 7, 1922, pp. 660-661.

<sup>2</sup> Singer states that this is compiled from Reichsbank documents, the rates used being for eight-day drafts, except that sterling and francs are quoted "at sight" for the years 1909 and 1910.

foreign currency, the value of the mark as compared with British, French, and Dutch currencies gradually drifted below par.

NUMBER OF DAYS MARK EXCHANGE WAS OR WAS NOT DEPRESSED \*

In Terms of	1896-1900			1901-1905			1906-1910		
	Above Par	At Par	Below Par	Above Par	At Par	Below Par	Above Par	At Par	Below Par
Sterling....	366	21	395	252	41	489	115	32	932
Francs.....	265	64	453	43	65	674	50	15	1,014
Guilder....	316	36	429	224	42	516	125	28	630

\* Singer does not explain why the total number of days set down is not greater for each of the five-year periods.

The theory which Singer and Schmidt advance in explanation of the growth of German foreign investments agrees with the findings of an investigation which the British government made at the beginning of the war into the affairs of London agencies of enemy banks. A combined balance sheet of five of these banks, published in 1917, shows large liabilities under the heading "Bank of England acceptance advances", and the offsetting asset of "debtors in enemy countries". Considerable evidence of German borrowing operations in Paris likewise came to light in 1911 when trouble between Germany and France was brewing over conditions in Morocco.

*Before the war Germany exceeded her economic capacity as an investor, and yet her new annual investments were gradually decreasing in amount. Each of these statements is frequently met in discussions of*

German pre-war trade and finance. Taken together they are highly illuminating. Even though Germany was exerting herself to the utmost, she was finding it more and more difficult to obtain a surplus in her international accounts, after providing for the needs of her growing population. The fact remains, however, that she was finding a way to expand her foreign holdings; she was in some way or other providing herself with a surplus and finding a way to make this surplus available in foreign countries. From the point of view of reparation, it is important that a measure of this surplus should be found. The foregoing discussion of German international income from trade and service and from borrowings does not give the estimate that is needed. Some other way of arriving at the figure must be found.

### III. THE ANNUAL AVERAGE INCREASE IN INVESTMENTS

*The growth of foreign investments over a considerable period of time indicates roughly the average annual amount invested abroad.* From the table on page 260 it will be seen that the several estimates concerning Germany's holdings in 1892-3 are in fairly close agreement as are likewise those for the year 1913; but this is not the case for the intervening years.

The report of the Imperial Marine Office, made in December, 1905, is widely used as a basis for most of the later estimates, but it is recognized that the figures given in the report are undoubtedly overstated. Riesser<sup>1</sup> explains that the report was

<sup>1</sup> RIESSER, J., *ibid.*, p. 803.

based on the returns from a questionnaire sent out to German consuls everywhere, and that the consuls' reports, in turn, were based upon the more or less accurate estimates furnished by others to the consuls at their respective posts. As he summarizes it, the report states that:

(a) The amount of German capital invested in foreign undertakings, plants, business enterprises, and participations, is estimated at 7.7 to 9.2 billion marks, equivalent to an income, reckoned at an average of 6 per cent, of 462 to 552 million marks.

(b) The amount of foreign securities in the possession of German holders is estimated at least at 16 billion marks, equivalent to an income of 800 million marks, reckoned at 5 per cent.

In commenting on this same report, Helfferich<sup>1</sup> points out the obvious fact that

it will not do simply to add over-sea capital investments to holdings of foreign securities. . . . This would give a total, for the two groups of the Imperial Marine Office in 1905, of 24 to 25 billion marks. On the contrary, a large part,—in fact, by far the largest part, of oversea capital investments are in the form of securities. Upon the basis of the Marine Office's figures, therefore, total investments of capital abroad in 1905 ought not to be placed higher than 20 billion marks. Even this total appears doubtful; for, from the total amount of foreign securities brought out in Germany, considerable reductions must be made to represent securities redeemed or bought back by foreign countries.

A spirit of optimism seemed to prevail in 1905, however, for it is evident, by reference to the table on page 260, that the report was accepted at that time without a correction being made for the error which Helfferich points out. This accounts for the

<sup>1</sup> HELFFERICH, KARL, *ibid.*, pp. 112-113.

fact that the estimates published at that time are considerably higher than those published seven or eight years later.

In arriving at an estimate of the net amount of Germany's foreign investments in 1913, Helfferich argues that

within the past few years new investments abroad had been considerably restricted, owing to the home demand for capital for industrial and public purposes.

He therefore sets his estimate at 20 billion marks, with the comment that in view of all the circumstances, "even this figure seems rather too high than too low."

C. K. Hobson's estimate is even more conservative than Helfferich's, for he says that at the outbreak of the present war German foreign investments did not, perhaps, greatly exceed £1,000,000,000 (M. 20 billions) in amount, and were to some considerable extent offset by investments in Germany on the part of foreigners.

A census of the foreign securities owned by German nationals, taken in Germany in accordance with a decree of Aug. 23, 1916, helps confirm the estimates reported by Helfferich, Hobson, and others for the years just before the war. German nationals reported to the German government in August, 1916, ownership of 16,248 million gold marks. They also reported that from the middle of 1914 to August, 1916, an export of about 2 billion gold marks of foreign securities had taken place. It was on the basis of the information furnished by this census that the

government, on Mar. 22, 1917, acquired complete control of the utilization of foreign securities in German possession, and in May, 1918, began to mobilize certain Swedish, Danish, and Swiss securities.<sup>1</sup>

As the purpose of the investigation was more or less generally known, it is probable that the returns were somewhat understated. The fact that the government was able at this time to get definite information with regard to 18,248 millions of securities indicates that the total investment at the beginning of the war was considerably in excess of this figure, and that after deductions were made for German securities owned by foreigners, a net figure of 20 billions was probably not far from the truth. Hans David's estimate of 21 billions, given in the table on page 260, was based on this census. It appears that Müller's figure of 35 billions is an estimate of the total ownership by Germany of foreign securities and enterprises, with no allowance for duplication or for foreign investments in Germany. It is interesting to note that Steinmann-Bucher's estimate for 1914 is only 25 billions, as against an estimate of 30 billions for 1909.

Taking everything into consideration we conclude that the net amount of Germany's foreign investments increased during the 20-year period 1894-1913 from approximately 12 billion marks to 20 billions, the net increase for the period being about 8 billion marks. This is the equivalent of an average annual investment of about 400 millions, assuming that the amount invested remained the same year

<sup>1</sup> *Wirtschaft und Statistik*, no. 2, 1923, p. 64.

after year. Helfferich, Crammond, and others, however, state that the annual sums invested were not the same throughout the period, but that the amounts invested in the later years were less than those in the earlier years. In other words, the annual balance of payments in favor of Germany was gradually decreasing: the annual foreign investment in the early years of the period was somewhat more than 400 millions, and in the later years, somewhat less than 400 million marks.

If no allowance is made for possible changes in the trade and financial balance before the war (but see text, pages 34-48), Germany could not, however, have made annual payments of 400 million marks to foreign countries year after year during the twenty years before the war. If she had done this her foreign investments could not have increased above what they were in 1893, namely, 12 billion marks. In fact, they might even have fallen below this figure, for it is the experience of investing nations that their investments actually shrink in value unless new investments are added, thereby building up the competitive strength of their enterprises as compared with those of other countries.

If we assume that with foreign investments remaining at 12 billion marks, interest income would have remained at 600 millions—the estimated interest income for the year 1893—the average annual interest income for the twenty-year period would have been reduced from 836 millions to 600 millions, a reduction of 236 million marks. This cut in income would of course have reduced her ability to invest abroad

or to pay foreign obligations. In other words, if in this period Germany had used all of her net payments balance for the purpose of meeting foreign obligations, and had made no additions to her foreign investments, her ability to pay foreign obligations would have been cut from about 400 million marks to less than 200 millions a year.

*In terms of 1922 prices, this average of 200 millions per year is equal to not quite 400 millions.* Three series of price index numbers for the period are published for Germany:<sup>1</sup> those published in the *Jahrbücher für Nationalökonomie*, which are based on actual average prices as shown by official statistics of the German customs union; those compiled by Otto Schmitz, and those published in the *Statistisches Jahrbuch für das Deutsche Reich*, the latter two being based on wholesale prices in Germany. The average price level during the twenty-year period 1894-1913, was, according to Schmitz, 82.5 according to the *Jahrbücher*, 84.9; and according to the *Statistisches Jahrbuch*, 86.6 per cent of the 1913 prices. In terms of 1913 prices, therefore, an average annual investment of 200 millions during each of the twenty years, was equal to 245 millions according to the Schmitz index; to 235 millions according to the *Jahrbücher*; and to 230 according to the *Statistisches Jahrbuch*. Converted into present-day prices, which are about 60 per cent above those of 1913, 245 millions become 392 millions;

<sup>1</sup> *Bulletin 284*, U. S. Bureau of Labor Statistics, Index Numbers of Wholesale Prices in the U. S. and Foreign Countries, pp. 228-254. *Statistisches Jahrbuch für das Deutsche Reich*, 1921-22, p. 285.



235 millions become 375 millions; and 230 millions become 370 millions.

Taking into consideration the fact that Germany's favorable balance of payments was gradually decreasing in amount, we might assume that during the first ten years of the period she would have been able to make annual payments averaging about 250 millions; and during the last ten years, about 150 millions. On this basis, the average for the twenty-year period appears slightly higher, when converted into 1922 prices, than that calculated above.

Taking the 1913 price level as 100, the average level of prices during these first ten years was, according to the Schmitz index, 73.8; according to the *Jahrbücher*, 76.6; and according to the *Statistisches Jahrbuch*, 79. The average level for the years 1904-1913 was 90.5 according to Schmitz; 92.5 according to the *Jahrbücher*; and 94.2 according to the *Statistisches Jahrbuch*. On the basis of the Schmitz index, an average of 250 millions each year for the ten years 1894-1903 is equal to 339 millions at the 1913 price level; on the basis of the *Jahrbücher* index, to 326 millions; on the basis of the *Statistisches Jahrbuch*, to 316 millions. An average of 150 millions for the years 1904-1913 is equal to 166 millions at 1913 prices, according to the Schmitz index; to 162 according to the *Jahrbücher* index; and to 159 millions according to the *Statistisches Jahrbuch*. Over the whole period, therefore, the average annual investment, in terms of 1913 prices, was, according to Schmitz, 250 mil-

lions; according to the *Jahrbucher*, 244 millions; and according to the *Statistisches Jahrbuch*, 237 millions. When converted into present prices, 250 millions become 400 millions; 244 millions become 390 millions; and 237 millions become 380 millions.

#### IV. ITEMS IN THE WAR AND POST-WAR ACCOUNTS

For war and post-war years the German trade statistics are much less reliable than formerly. During the war years, and until September, 1922, whatever value-figures were officially reported by Germany were stated in terms of paper marks. Those who wished to compare these figures with data for pre-war years found it necessary to convert these paper-mark values into gold-mark values, making the conversion as a rule on the basis of the monthly trade returns and of the corresponding monthly average exchange values of the mark.<sup>1</sup> In 1922, however, the fall of the mark was so rapid that such conversions became practically meaningless. In September, 1922, therefore the German statistical office decided to publish an officially computed gold-mark value for the total imports and total exports—in addition to the paper mark values which it continues to give for the many commodities itemized in the returns.

The method used in this conversion is somewhat

<sup>1</sup> See pp. 52-53 of the text for a further discussion of post-war difficulties in the way of compiling accurate trade statistics. In making comparisons between pre-war and post-war trade statistics, an allowance must, of course, be made for the change in territory which has resulted from the execution of the peace treaties.

complicated, but in view of the difficulties involved, it has been accepted by the statisticians of other countries as a fair and reasonable method. As explained in *Monatliche Nachweise über den auswärtigen Handel Deutschlands* (the German monthly trade report) for September, 1922, the gold mark values reported are arrived at in the following way.

1. *Imports.* In accordance with the decree of Feb. 12, 1921, concerning the declaration of the value of the goods imported, the value of the imports must be declared in paper marks,<sup>1</sup> that is, the importer must state the number of marks he actually paid to cover the cargo, whether the invoice was made out in marks or in foreign currency. It often happens that the value of imports is much higher than is indicated by this declared paper-mark value, because of the fact that in many cases several months intervene between the conclusion of a contract, or the date of payment, and the importation of the goods, and that during this time a considerable depreciation in the value of the mark may take place. If, in order to offset this, the declared import values be converted into gold marks at the average rate of the dollar during the preceding month, the resulting gold-mark figures are also too low, because more than a month generally elapses between the time of payment and the date on which the goods pass the frontier. A possible alternative is to convert the paper-mark values into gold marks on the basis of

<sup>1</sup> Notice that both exports and imports are now on a declared basis, but the change does not affect the method of dealing with shipping charges: exports are still *f.o.b.*; imports, *c.i.f.*

the latest London commodity price quotations—taking that as the best index of world prices. This method of conversion, however, gives too high a valuation because some imports are from countries selling below the world price level, and a small part of the imports are even from countries which accept payment in paper marks. To avoid the objections offered to each of the above methods, the German statistical office makes the conversion by *both* methods, determines the arithmetical average of the two figures, and reports this as the gold-mark value of imports.

2. *Exports*.—Exports are declared in terms of the currency for which they were sold. The fact that those exports which are sold for foreign exchange are also *declared* in terms of foreign currency gives a better guaranty under present circumstances of the accuracy of the export returns than does the method used for imports. At present about 60 per cent of the total exports are declared to the statistical office in terms of foreign currency. To determine the gold value of the remaining 40 per cent, the statistical office converts the paper-mark values into gold-mark values by using the average rate of the month of exportation (Berlin exchange). So long as the exchange continues to fluctuate, this method is, of course, not accurate, but as foreign payments may be made either before or after the month of exportation there are sufficient grounds for making the conversion at the rate of the month of exportation.

Other difficulties in the way of collecting accurate statistics of Germany's post-war trade are discussed

on pages 52-53 of the text. Any comparisons made between the trade for pre-war, war, and post-war years, must make allowance for the difficulties under which the later statistics are compiled, for the decrease in German territory and population that has resulted from the Peace Treaty, and also for the abrupt rise in the world price level since 1913. On the other hand, it is reasonable to make comparisons between the import and export figures for a given year, since both sets of figures are compiled under practically the same conditions. In the result, known as the balance of trade, errors in the export figures to a large extent cancel similar errors in the import figures. In view of all the facts, therefore, it seems that we may accept the war and post-war balance-of-trade figures published by the German government as being reasonably reliable approximations, fairly good expert guesses—as well as being the only available official data—with regard to the annual deficits in Germany's trade accounts for these years.

Without doubt, Germany is no longer able to meet this trade deficit out of a favorable invisible balance. To the evidence on this question that is given in the text, some further information and details are added in the following paragraphs.

*Since the outbreak of the war, Germany's net income from foreign investments and foreign balances has completely disappeared.* Two methods of estimating the remnant of foreign investments left to Germany at the close of the war are used in Chapter II of the text. Both of these lead to the conclusion that this

remnant could not have amounted to more than 2 or 3 billion marks.

Chapter III states that even the greater part of this remnant has probably now been used in providing payment for German imports, and that while Germany has been accumulating some foreign bank balances, she has little left that will yield her a net interest income. A report<sup>1</sup> that has recently been published by the German statistical office concerning the census of foreign securities that was taken in 1916, and the disposal made of the securities since then, is in agreement with these statements. The 16,248 millions held by German nationals in August, 1916, were disposed of as follows.

	Millions of Gold Marks
(a) Exported between 1916 and 1919.....	6,180
(b) Sold by the German government during 1917 and 1919 for the purchase of foodstuffs and raw materials...	832
(c) Deposited in enemy countries, and confiscated after the war.....	3,887
(d) Delivered to the Allies, according to the Treaty of Versailles.....	792
(e) Exported during the period from April 1, 1919 to the end of 1922.....	1,000
(f) Unsecured pre-war Austro-Hungarian securities, now practically valueless.....	1,400
(g) Still in Germany at the close of 1922, comprised in large part of Russian securities; Austro-Hungarian government secured loans, industrial stocks, and bonds; and of Turkish, Roumanian, and similar depreciated government securities; interest income on all of which has almost entirely ceased.....	2,157
Total.....	16,248

<sup>1</sup> *Wirtschaft und Statistik*, no. 2, 1923, p. 64.

Whereas the estimates in Chapter II lead to the conclusion that the net remnant of German securities at the end of the war was probably not more than 2 or 3 billion marks, the above table shows only about 1 billion of saleable foreign securities left to Germany on April 1, 1919. In Chapter II it is, of course, assumed that the total German investment in foreign securities and foreign enterprises was somewhat more than 20 billions, but that, on the other hand, there had been foreign capital invested in German securities and German enterprises. The 20 billions are estimated to be the *net* amount—after allowance had been made for foreign investments in Germany—on which Germany received income in pre-war years. It is the remnant of this net amount—or the net remnant—which is estimated to have been 2 or 3 billions at the end of the war, and now to have dwindled to practically nothing.

The German securities census probably did not succeed in revealing all German-owned foreign securities; it also seems to have taken no account of German capital directly invested in foreign undertakings, plants, business enterprises, etc.; nor does it raise the question of the extent to which foreigners have invested in German securities and German enterprises. If these facts are taken into consideration, and if allowance is made for the fact that the total value of German foreign securities—18,248 million marks—which the census revealed, p. 280, is 1,752 millions short of the estimate used as a basis for the computation in Chapter II, the figures with regard to the probable amount of this remnant of

holdings disclosed by the securities census agree very well with those arrived at in the text.

*As a result of the war, German shipping earnings have been greatly reduced.* In accordance with the Treaty of Versailles, the greater part of Germany's ocean-going tonnage was transferred to the Allies during the years 1919 and 1920, thus leaving her with practically no shipping income for these years. Since then, however, she has bought back some of these transferred ships, has added new ones to her merchant fleet, and has also leased foreign ships to supplement her insufficient tonnage, so that once more the shipping item appears in her international accounts.

It should be remembered that, since the German trade (both exports and imports) is valued at the German frontiers, the figure recorded as the value of imports includes not only the cost of the goods but also the cost of transporting them, and charges for insurance, banking, commission services, etc. The export figure is exclusive of costs added after the goods leave the German frontier. Thus Germany's expenditures for shipping are automatically set down in her international accounts as a part of the import figure, but her shipping receipts are not included in the export figure. It is therefore necessary that these accounts should also include any income which she receives from shipping. To determine the net shipping item it would be necessary to separate from the import figure the part that was paid to foreign ships, and to set against this the income received from foreigners for the services of German



ships. If this were done, the result would probably show that at present Germany is receiving very little, if any, net return from shipping. The so-called "shipping income" that is usually recorded is not this net figure; it is simply the credit item which is balanced against the concealed shipping debit included in the import figure.

On page 264, the German shipping income for 1921 is estimated at 68 million gold marks, and for 1922 at 180 millions. The method used in arriving at these estimates is open to more objections when used for post-war than for pre-war years, but it at least furnishes a rough guess, and at present nothing better is to be had.

*Germany's international receipts from the transit trade have been considerably reduced.* According to a French estimate, they amounted to probably 25 million gold marks for the year 1922, a figure which represents a reduction of 75 per cent or more as compared with the 1913 estimates. In accounting for the decrease, a number of causes are cited. (1) The total trade to be carried has greatly decreased since the war. (2) Goods for Russia and Poland that formerly came through the port of Hamburg may now enter through the port of Danzig and proceed from there by way of the Polish corridor, thereby increasing the freight receipts of Poland at the expense of Germany. (3) Since East Prussia is now separated from the rest of Germany by the Polish corridor, German goods going to or from East Prussia must pass through this part of Poland, thus further reducing Germany's net income from the

transit trade. (4) Foreign boats on German rivers are more numerous now than in pre-war times.

The above estimate of 25 millions may be somewhat low, but since the item bulks very small in Germany's balance of payments, the net effect of an understatement or overstatement here would be of minor importance. As matters of detail, however, attention may be called to the following facts: (1) Germany's state-owned railway mileage in 1922 had been reduced, as a result of the war, to about 92 per cent of the 1913 figure. (2) Exaggerated importance is given above to Germany's losses in the transit trade in Poland's favor. Shipping in the port of Hamburg is rapidly approaching the pre-war level,<sup>1</sup> while the Polish corridor is a strip of territory only about 15 miles wide, in which freight charges accruing against Germany cannot be very large.

Dr. Kuczynski contends that Germany's income from the transit trade in 1922 probably stood at 50 per cent, rather than at 25 per cent of the pre-war figure—although he believes that the estimates which set Germany's transit-trade income in 1913 at 100 to 120 million marks, are probably too high. He points out that cheap German freight rates are attracting trade to the German railways which formerly went by ocean carrier.<sup>2</sup> Dutch potatoes

<sup>1</sup> See shipping statistics in the *Federal Reserve Bulletin*, May, 1923, p. 610. *Hamburger Uebersee-Jahrbuch*, 1922 (edited by Friedrich Stiebert), pp. 444-5. *Geschäftsbericht der Deutschen Reichsbahn über das Rechnungsjahr 1921*, p. 16.

<sup>2</sup> KUCZYNSKI, R., "Reichseisenbahnen und Reichsfinanzen," p. 23 f. Cf. TECKLENBURG, "Die Reichsbahn," vol. II, p. 15.

bound for France are now carried through Germany rather than by way of Belgium. Czechoslovakia, which in pre-war times got its overseas goods by way of Trieste, receives them nowadays by way of Hamburg, and sends its exports of sugar and timber to the German North Sea ports. English coal, which in former days went by ship to Genoa, now goes through Germany by rail.

Whether the figure is 25 millions or 40 to 50 millions, it is a relatively small item in the international balance of payments.

*The maximum estimate for post-war tourist income is 300 million gold marks per annum.* The method by which this estimate is reached, is explained on page 54 of the text. If the income from the tourist trade ever did reach this figure, it seems quite certain that that time is now past. C. E. Herring, American Commercial Attaché to Berlin, would discount the statement altogether. He says:<sup>1</sup>

The profits from tourist expenditures in Germany are, no doubt, smaller than before the war, as the hotel crisis in all the larger cities and the discomforts of travel tend to keep away all but business visitors. Furthermore, while foreigners usually spend much more than the domestic population, their expenditures, calculated on a gold basis, are exceedingly low, and the purchasing power of the dollar, pound, or franc, in terms of commodities, transportation, or even hotel accommodations, is considerably more than before the war. Foreign visitors in Germany, as well as the armies of occupation in occupied Germany, are really beneficiaries of the abnormally low prices (measured in

<sup>1</sup> *Trade Information Bulletin* 40, C. E. HERRING, MAURICE PARMELEE, and ROBERT J. SCOVELL, "German Reparations, Budget, and Foreign Trade," June 26, 1922, p. 31.

gold) resulting from German financial exhaustion, despite large expenditures in paper marks and the frequent payment of higher prices than Germans.

Germany's post-war income has been increased somewhat through the receipt of gifts and relief contributions.

The statement is made on page 102 that a balance between Germany's invisible debits and credits is the most that may be assumed for some years to come. She may increase her shipping income, but her future progress in rebuilding her merchant marine is likely to be less rapid than it has been in the last year or two. Already the tourist income has begun to decrease. Other items that yielded her a temporary income following the war are disappearing from the accounts. There is little prospect of much increase in her income from the transit trade. The income from all other invisible items is practically negligible. The only items likely to bring an appreciable future income, therefore, are shipping and the tourist trade; and against these items stand the large payments which Germany must make to foreign investors who have been buying the stock and bonds of German corporations, as well as other forms of property in Germany.

## APPENDIX B

### ESTIMATES OF GAINS FROM THE SALE OF PAPER MARKS

In the text use has been made of the estimates of Kurt Singer and of J. M. Keynes with regard to the gain which accrued to Germany through the purchase of paper marks by foreign speculators. Both writers had made some use of an estimate published by von Glasenapp; Singer, in fact, makes definite reference to it. This estimate of von Glasenapp's was to the effect that early in 1922 foreigners were in possession of some 25 to 30 billions of paper marks, that foreign credit balances in German banks amounted to about 35 billions paper, that foreigners held German securities valued at about 35 billions paper, and that the total credits granted to Germany amounted to a maximum of 30 billion paper marks.

Singer's method is as follows. Having quoted this estimate, he proceeds to the question of ascertaining the gold-mark equivalent received by Germany in return for this paper. Of the total 130 billions <sup>1</sup>

<sup>1</sup> When testifying before the Sozialisierungs-Kommission über die Reparationsfragen, April 1, 1922, von Glasenapp was asked whether the mortgages given to foreigners by German real estate owners were included in the 130 billions. His answer was, "As to the mortgages, we have no figures," and director Nordhoff of the Reichsbank said, "Some billions will have to be added on their account." In the

itemized above, 100 billions, according to Singer, may be considered as short-term obligations. Of these 100 billions, he assumes that probably 60 billions are payable in paper marks, and that the rest are payable in some other form of currency or are secured by some form of tangible assets. These 60 billions of paper, then, converted into gold-mark values, represent according to Singer the amount which Germany gained from her foreign dealings in paper marks.

As a first step towards this computation he gives the following comparison of paper-mark and gold-mark values over the period during which these sales took place:

	Paper-mark Equivalent
Average rate during the war.....	1½
Average rate for the years 1919-1921 inclusive.....	8
For separate years the rates were: 1919.....	4
1920.....	15
1921.....	20

His next step concerns the way in which these sales of paper marks were distributed over the period in question. Singer says that since the larger sums in notes were in all probability liquidated soon after the end of the war and since the arithmetical average rates for the years 1914-1921 inclusive,

same session, von Glasennapp said he considered that the estimates which placed German-owned foreign exchange at a value of 1 to 1.5 billion gold marks were too high. See, "Verhandlungen der Sozialisierungs-Kommission über die Reparationsfragen," 1922, vol. III, pp. 430 and 426.

shows 2 paper marks as the equivalent of 1 gold mark, it is reasonable to assume that the mean rate of purchase was approximately the same as the rate quoted for 1919, or 4 paper marks to 1 gold mark.

At this rate of conversion, 60 billion paper marks are the equivalent of 15 billion gold marks, or, as Singer puts it, for the acquisition of these 60 billion paper marks, foreign purchasers have expended about 15 billion gold marks. He adds that if the unlikely supposition is made that these 60 billions of paper were acquired at an average rate of 10 paper marks to 1 gold mark, foreign holders have paid 6 billion gold marks for the 60 billions of German bank notes, deposits in German banks, and short-dated loans which they hold. These figures, as Singer points out, do not take into account the losses incurred by the purchase of German securities. To a certain extent, all foreign purchases of German securities since the war might be considered as a form of mark speculation, but this applies more clearly to government and municipal than to industrial securities.

The statement made on page 85 of the text to the effect that Singer's estimate shows that Germany's gain from mark speculation since the war has amounted to 10 billion gold marks, is not a direct quotation from Singer, but is deduced from the data which he presents. He says that of the 23 to 30 billion paper marks held by foreigners, from 6 to 7 billions were sold by Germany during the war, with a view to covering surplus imports, in addition to German notes—the amount of which he does not

specify—expended during the war in occupied territories. Converted into gold marks at the average rate for war years— $1\frac{1}{3}$  paper marks to 1 gold mark—7 billion paper marks becomes approximately 5 billion gold marks. Of the total 15 billions, therefore, which he estimates as Germany's gain from mark speculation for the years 1914–1921, some 5 billions or more were gained during the war; the remaining 10 billions or less were gained after the war.

*Keynes' estimate of Germany's gains from mark speculation refers altogether to post-war years.* He states that speculators in marks could take their securities in any of three ways: Reichsbank notes, deposits in German banks, or German mark bonds. His estimates with regard to each class are as follows:

(a) Reichsbank notes held abroad at the end of 1921, according to most authorities, amount to from 25 to 30 billions, for which foreigners paid in gold approximately.....	3.5 billions
(b) Balances for foreign account held in German banks, on the assumption that directly or indirectly 300,000 foreigners have opened bank accounts in Germany and have remitted £500 each on the average, amount to a total of gold marks of.....	3 billions
(c) German mark bonds, mainly government and municipal—only a limited number of issues of which have interested foreigners on an important scale—may at the most be estimated in gold marks at perhaps.....	1.5 billions

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The total realized from these sources amounts in gold marks to..... 8 billions

The method by which he arrives at his estimate that approximately 3.5 billion gold marks were paid



for the 25 to 30 billions of Reichsbank notes held by foreigners is as follows: First, he tests the paper-mark estimate to see if it appears reasonable; second, he states the conversion rates applicable to each of the 3 years 1919-1921; third, he computes his gold mark totals.

1. To test his estimate that about 25 to 30 billions of paper marks had been acquired by foreigners since the war, he proceeds as follows:

At the end of 1918, the total note issue of the Reichsbank was 22 billions; and at the end of 1919, it was 36 billions; an increase of 14 billion marks during the year 1919. During the year 1919, however, German prices doubled, so that a part of this increase was required at home, leaving for export during the year probably not more than.....	5 to 7 billions
During the year 1920, the note issue increased to 69 billions, a net increase for the year of 33 billions. During 1920, however, prices trebled (the average for the year 1920 being seven times that for the year 1918) so that in 1920 as in 1919, a considerable share of the new note issue was required at home, the export for the year amounting to, say.....	7 to 14 billions
During 1921, the note issue increased by 45 billion marks, or from 69 billions to 114 billions, but again prices rose, increasing this time to nine times the 1918 level, so that if the internal currency needs of the country could be met by a volume of circulation four times that of 1918, there would be room only for a further export of.....	14 billions

2. The conversion rates which he quotes, practically the same as those used by Singer, are as follows:

	Paper-mark Equivalent of One Gold Mark
1919	4 to 5
1920	14
1921	20

3. On the basis of his estimates with regard to the amounts that were exported each year, and the respective conversion rate, he concludes that at a minimum, 2 billion gold marks, and at a maximum, 3 billion gold marks, were spent by foreigners in the years 1919–1921 in the purchase of Reichsbank notes. For the year 1922, while the volume of sales was probably large, the value of the mark was low, so that the proceeds from mark sales in 1922 were not large. He therefore sets 3.5 billion gold marks as for his maximum estimate of Germany's receipts from Reichsbank notes held in foreign countries.

## APPENDIX C

### FOREIGN PURCHASES OF URBAN REAL ESTATE IN GERMANY

THE experience of the Berlin district of Schöneberg has been used in the text as a basis from which to estimate the extent to which foreigners have bought up urban real estate within Germany. The data on which this estimate is based are as follows:

NUMBER OF BUILDINGS IN SCHÖNEBERG SOLD TO FOREIGNERS  
IN EACH MONTH, 1918-1923

Months	Number of Sales *					Average Number of Marks to the Dollar				
	1918-19	1919-20	1920-21	1921-22	1922-23	1918-19	1919-20	1920-21	1921-22	1922-23
October . . .	1	3	4	18	113	6.6	26.9	68.1	150.2	3,181.0
November . . .	...	8	3	35	140	7.4	38.4	77.2	263.0	7,183.1
December . . .	...	16	2	29	51	8.3	47.4	73.0	191.9	7,589.3
January . . .	...	11	6	15	33	8.1	59.6	65.3	191.8	17,972.4
February . . .	...	27	9	11	16	9.1	99.0	61.3	207.8	27,917.7
March . . .	...	24	2	19	3	10.3	82.7	62.5	284.2	21,190.0
April . . .	...	18	1	41	...	12.5	59.6	63.5	291.0	
May . . .	...	10	4	37	...	12.7	46.5	62.3	290.0	
June . . .	...	12	2	37	...	14.2	39.1	69.4	317.4	
July . . .	...	8	...	53	...	15.2	39.5	76.7	493.2	
August . . .	1	5	1	56	...	19.3	47.7	84.3	1,134.6	
September	1	6	4	90	...	24.1	58.0	104.9	1,465.9	

\* Figures for 1918-19 to 1921-22 taken from Stegemann, *L'acquisition de maisons allemandes par des étrangers (Deutsch-Französische Wirtschafts-Korrespondenz, no. 1, 1923, p. 10; exchange rate of the dollar for 1922-23 taken from Wirtschaft und Statistik; house sales in 1922-23 taken from Stegemann, L'acquisition d'immeubles berlinois par des étrangers (Deutsch-Französische Wirtschafts-Korrespondenz, no. 5/6, 1923, p. 16).*

## PLACE OF RESIDENCE OF FOREIGN PURCHASERS OF BUILDINGS IN SCHÖNEBERG\*

Residence of the Purchaser	Number of Buildings Sold to Foreigners					
	Oct., 1918, to Sept., 1919	Oct., 1919, to Sept., 1920	Oct., 1920, to Sept., 1921	Oct., 1921, to Sept., 1922	Oct., 1922, to March, 1923	Oct., 1918, to March, 1923
Austria.....	...	...	...	66	88	154
Belgium.....	...	5	...	6	6	17
Czechoslovakia..	...	4	...	50	25	79
England.....	...	6	2	7	1	16
Esthonia.....	...	...	...	9	7	16
France.....	...	2	1	18	8	29
Holland.....	...	19	13	18	6	56
Hungary.....	...	5	...	4	31	40
Italy.....	...	2	1	24	11	38
Latvia.....	...	3	2	23	17	45
Poland.....	2	19	5	62	74	162
Roumania.....	...	...	2	12	17	31
Spain.....	...	5	...	46	7	58
Sweden.....	...	38	...	13	8	59
Switzerland.....	...	5	...	10	5	20
Other European countries.....	1	21	5	35	26	88†
United States...	...	6	5	16	9	36
All other countries.....	...	8	2	22	10	42‡
	3	148	38	441	356	986

\* Compiled from the two articles by Stegemann referred to above.

† Bulgaria 7, Dansig 11, Denmark 11, Finland 5, Greece 2, Jugoslavia 9, Lithuania 7, Memel 2, Norway 12, Russia 12, Turkey 10.

‡ Argentine Republic 5, Armenia 2, Brazil 1, China 1, Cuba 1, Egypt 6, Eritrea 9, Meesopotamia 2, Mexico 4, Palestine 1, Panama 1, Peru 1, South African Union 3, Syria 3, Tripoli 2.

## APPENDIX D

### METHODS OF ACCOUNTING OF THE REPARATION COMMISSION

THE document cited in the note on page 63 was the first of a series published by the British and French governments which it is hoped will throw considerable light on the operations of the Reparation Commission.

It is fundamentally necessary to bear in mind that, since 1918, the German payments, so far as reparation is concerned, have been credited under two great headings, those required by virtue of Article 235 and those required under the other reparation clauses (231-234, 236-244). Let us take these two stipulated sets of payments in order.

Article 235 of the treaty obligated Germany to pay, by May 1, 1921, "in such instalments and in such manner" . . . as the Reparation Commission might fix, the equivalent of 20,000,000,000 gold marks. This sum was intended to cover the expenses of the Army of Occupation, together with the cost of "such supplies of food and raw materials as 'might' be judged by the governments of the Principal Allied and Associated Powers to be essential to enable Germany to meet her obligations for reparation." The balance was to be reckoned

towards the liquidation of the amounts due for reparation. The military occupation costs were thus the first charge upon this sum of twenty billion marks. These costs, under Article 249, were to be calculated in two ways. All requisitions within occupied territory were to be paid for by Germany in marks "at the current or agreed rate of exchange". All other costs, salaries, allowances, and equipment were to be paid for by Germany in gold marks.

According to the Commission's figures, the total cost up to April 30, 1921 of the European armies of occupation was 2,471,336,000 gold marks. Against this, states the report, Germany has delivered paper marks to the value of 339,432,000 gold marks. The net Allied cost of 2,131,904,000 gold marks had, therefore, to be charged up to whatever Germany might pay under Article 235. Moreover, if the costs of the United States Army of Occupation were to be included, to these 2,132 millions must be added 1,011 millions more, making a net total of about 3,143 millions of army costs to be met by Germany's payments under Article 235. Still another item, namely, the cost of coal requisitions prior to May 1, 1921, amounting to 392 millions, has to be included in the aggregate of Germany's minimum obligations under Article 235. This gives a total figure of 3,535 million marks.

Toward the payment of this aggregate sum, the Commission admits having received 2,595 million marks in kind or in cash (from other sources than Germany but to Germany's credit). In other words, on April 30, 1922, the balance still to be cov-

ered by Germany on this account, namely Article 235, for the period Nov. 11, 1918 to April 30, 1921, was 940 million gold marks.<sup>1</sup>

The Commission, however, mentions several other items which it says are as yet not definitive, but which, when all pending questions shall have been settled, are to "rank against Article 235". These "suspense items" the Commission sets down provisionally at the German figures. They amount to 4,961 millions and include the following, in millions of gold marks.

Gold deliveries and other payments made for food and raw materials for Germany (German figure).....	3,835
Saar coal delivered to France prior to German cession of the Saar (German figure).....	
Currency furnished to the armies of occupation up to April 30, 1921.....	485
Goods and services furnished to the armies of occupation up to November 30, 1920 (German figure)....	600
Expenses of inter-Allied commissions to November 20, 1920 (German figure).....	40
	<hr/>
	4,961

It is true that the first item represents a payment in consideration for which Germany really received something. We may, therefore, strike it from the account, as it would appear on both sides. But the balance of these items as enumerated aggregates 1,126 million gold marks, and from this figure, provisional though it may be, enough may reasonably be expected to be realized to offset the pending Ger-

<sup>1</sup> On Jan. 31, 1923, this balance amounted to 913 millions.

man debit of 940 millions on the account prior to May 1, 1921.

For a clear understanding of the significance of this provisional deficit, it must be remembered that although Article 235 contemplated large reparation payments over and above occupation costs, its first object was to meet what might be called the overhead charges of treaty enforcement. If Germany failed to turn over sums in excess of those overhead charges, up to the maximum demanded—twenty billions—then she simply failed to pay just that much of her ultimate aggregate debt, losing in consequence many advantages attached to early payment. The Commission, while not waiving any of its claims under Article 235, has in fact merely insisted that enough money should be forthcoming from the debtor to meet the costs incident to collection. When the deficit or surplus to Germany's debit or credit on account of Article 235 shall have been determined, presumably it will be carried over to the reparation account for the reparation year 1921-22. Thus if the deficit on the military occupation cost payments is set at 940 millions, and carried over to 1921-22, Germany will be liable for 940 millions over and above what she was to have paid in 1921-22 on her reparation account (2 billions, plus 26 per cent of the value of her exports), as prescribed in the schedule of payments. On the other hand, if the Commission finally credits Germany in respect of the "suspense items" with a sum greater than 940 millions, there will be a net surplus of payments on occupation account down to



April 30, 1921; and this surplus will be treated as payment on reparation account for the year ended April 30, 1922.

We now come to the period between May 1, 1921 and April 30, 1922. The Reparation Commission, as we have seen, fixed Germany's liability for reparation at 132,000,000,000 gold marks. From this sum certain deductions were to be made, and to it there was to be at least one addition, namely, the Belgian foreign war debt. The deductions were (a) amounts *already paid and chargeable to reparation*, and (b) credits for ceded state property. What these deductions will ultimately involve cannot—even now in June, 1923—be definitely indicated. If they were to represent the total of state-property valuations, together with the surplus payments under Article 235 which we have noted above as within the range of possibility, they might even attain as high a figure as 6,500 million gold marks.

Nor is the addition to the reparation liability on account of the Belgian war debt to the other Allied and Associated powers much more precise. This debt was calculated in April 1, 1921 as amounting to 4,000,000,000 gold marks. The amount, however, could not be definitely stated until the negotiations regarding international debts had been concluded.<sup>1</sup>

However, starting out with a *provisional* aggregate liability of 136,000,000,000 gold marks, according to the Commission, Germany paid during the

<sup>1</sup> By Jan. 31, 1923, the Belgian foreign war debt appears to have mounted (still provisionally) to 5,624 million gold marks.

year May 1, 1921-April 30, 1922, the equivalent of 1,877,814,749 gold marks. The composition of this total in millions of gold marks is as follows:

Cash and securities.....	1,313.6
Deliveries in kind.....	560.4
Armistice deliveries in kind.....	3.6
	1,877.6

Had Germany complied with the requirements of the schedule of payments of May 5, 1921, she would have paid by April 30, 1922 2 billion gold marks, plus 26 per cent of the value of her exports for the preceding twelve months, or an amount approximating 2,570 million gold marks. This she declared herself unable to do. She requested on Dec. 14, 1921 a reduction of this amount. On Jan. 13, 1922, the Commission required her to pay 31 million gold marks every ten days until a decision might be given as to a moratorium. On March 21, a modification of the schedule of payments was authorized *but only for the balance of the calendar year 1922*. According to this modification Germany was to pay in cash or kind a total of 2,170 millions down to the end of the year 1922. At the end of the Reparation Commission's year (April 30, 1922), the Commission had credited Germany with 509 million gold marks, leaving 1,253 millions in kind and 407.7 millions in cash to be paid by Dec. 31, 1922. The later transactions of the Commission with Germany and the successive modifications of the schedule of payments have not yet been the subject of official reports

by the Commission, although, to be sure, there is sufficiently authoritative official public record of them to make possible the construction of a trustworthy chronological narrative.

Reverting now to the total of "passed" items acknowledged by the Commission to have been actually received from Germany in the period May 1, 1921-April 30, 1922—namely, about 1,878 million gold marks—we must examine the method of its distribution in order to answer fully the question raised above as to the reasons why what is acknowledged to have been received from Germany is not applied to reparation account.

To begin with, the cost of military occupation continued still to be a first charge on all receipts, and this cost, although less than before May, 1921, was still very large. For the twelve months ending April 30, 1922, it amounted (gross) to 289 millions of gold marks, of which 79 millions were stated by the Commission to have been met by paper-mark deliveries. The net cost of 210,591,000 gold marks was met from the deliveries in kind received during the year (noted above as totalling 560 million gold marks). But the costs of the United States in excess of 56 million gold marks had not been met. Notwithstanding this last fact, the Allied Powers decided (March 11, 1922) to meet their own army costs since May 1, 1921 out of cash and kind received in the same period. In consequence of this decision, 640,000,000 gold marks of the receipts were transferred to army account. The Commission concludes its statement of the account with the definite declara-

tion that Germany was 965 millions in arrears for the twelve months ending April 30, 1922 *so far as the schedule of payments of May 5, 1921, was concerned.*

The Commission thus concludes that, as of April 30, 1922,

- (1) Germany was still 940 million gold marks behind in meeting the overhead charges of treaty enforcement to May 1, 1921;
- (2) Germany could not be *finally* credited with *any* portion of *any* of her payments under *any* of the reparation clauses, because of deficits in *all* of her accounts, and because of her inability to live up to the provisions of the schedule of payments of May 5, 1921;
- (3) Germany was at least 965 million gold marks behind in her 1921-22 payments under the schedule of payments; and
- (4) The provisional valuations of state property transferred by Germany might be regarded as provisionally deductible from the capital debt (tentatively amounting to 136,000 million gold marks)—that is to say, about 2,504 millions might be subtracted—leaving a provisional net capital debt of about 133,496 millions, of which debt the A, B, and C bonds given to the Reparation Commission by Germany are formal evidences. But the capital amount is

still as indeterminate as the deductions, for the reasons stated in 2 above.<sup>1</sup>

<sup>1</sup> In the brief official statement covering the period down to Jan. 31, 1923, we get the following interesting figures in millions of gold marks without commentary:

1. On all accounts prior to May 1, 1921, Germany's liability to the Commission or Allied governments amounted to 3,535 million gold marks, and she has paid, to Jan. 31, 1923, 2,622 million, leaving an unpaid balance of . . . . .	913
2. On the capital debt account, Germany's liability was 137,504 million gold marks, and she has paid 2,553 million, leaving an unpaid balance of . . . . .	134,950
3. On army and related costs since May 1, 1921, Germany's liability was 392 million, and she has paid 321 million, leaving an unpaid balance of . . . . .	71
4. On the schedule of payments, from May 1, 1921, to Jan. 15, 1923, Germany's liability was 4,931 million gold marks and she has paid 2,427 million, leaving an unpaid balance of . . . . .	2,503
Or, in other words, Germany's total liability on Jan. 31, 1923, was . . . . .	138,437

## APPENDIX E

### CLEARING HOUSE OPERATIONS

THE Treaty of Versailles (Article 296) provided that each contracting party should assume responsibility for the commercial debts owed by its nationals, except in the case of the pre-war insolvency of the debtor. Clearing houses for this purpose were set up by Germany (April 26, 1920), and from time to time by Great Britain, France, Italy, Belgium, Greece, Siam, and Haiti. Several other states, however, the merchant classes of which were known to have had fairly heavy outstanding obligations due to Germany (Poland, Czechoslovakia, Roumania, the Serb-Croat-Slovene State, and others) have not been unduly hasty in providing the debt-settlement machinery. The majority of those states which have had recourse to Article 296 have naturally been those countries to which in pre-war times German citizens normally were heavily in debt on commercial account. France's position, of course, is affected particularly by the special problem of liquidating the balances of Alsace-Lorraine with the rest of the former German empire.

So far as Great Britain is concerned, we have a provisional estimate that at the outbreak of the war the balance in favor of Great Britain in respect to con-

tract debts was in the neighborhood of £35,000,000, —or about 700,000,000 gold marks. (*First Report of the Controller of the Clearing Office*, London, 1921, page 11.) In addition to these commercial obligations, there was much British and other Allied property in Germany, and the clearing offices were charged with the recovery of such property or its proceeds. Both general classes of obligations were to be liquidated at pre-war rates of exchange.

The Allied clearing houses were to notify the German office of the various claims made by their nationals for payment of debt or restitution of or payment for property. The German office, on the other hand, was to notify the Allied offices of all German claims. If the incoming claim were admitted by the debtor as represented by the receiving clearing office, it was to be credited on the latter's books to the office of origin, regardless of whether or not it could be collected. At the end of each month accounts were to be exchanged showing the aggregate debits and credits; and whenever the German clearing office's debit balance were larger than the corresponding credit balance, it was to pay the balance in cash to the respective creditor clearing office; while, if the position were reversed, the German office was to have its credit balance apply to successive months. If at the end of the entire process of liquidation, any balance were to exist in favor of the German office, it was to be retained by the respective clearing office until complete payment should have been effected of the sums due by Ger-

many to the other signatories of the Treaty of Versailles. Finally, if contests arose over any question between the original parties to the contracts, between the proprietors of expropriated or damaged property—and the respective public authority—or between the clearing offices themselves, such litigation was to be subject to the final jurisdiction of independent mixed arbitral tribunals set up by the treaty.

It is not difficult to see the practical effects of this clearing system upon Germany. All contracts involving debts owed by Germans, irrespective of the language of such contracts, were to be regarded as payable in the foreign currencies of the various creditors. If a German owed 10,000 marks to an English firm at the outbreak of the war, the treaty bound him to pay the debt at the rate of 20.4 gold marks to the pound,—in other words he paid at par and derived no benefit from depreciated exchanges. Moreover, accrued interest at 5 per cent was demanded for the seven years since 1914. This meant on the basis of a German debt of 10,000 marks, payments of £487-12s-7d on account of principal and £170-13s-4d on account of interest—a total of £658-5s-11d.

If German creditors were to get any cash in the liquidation process, or if German debtors were to find any way of bridging the chasm between current and pre-war values of contract obligations expressed in either foreign or German currency, it would have to be with the aid of the German government. As a matter of fact, the government felt compelled to



assume nearly the entire burden of the clearing process. The German government undertook to absorb (in its budget) the loss on exchange, taking payment from the German debtor in the exact number of marks that had been stated in the given contract or that would have equalled the foreign currency involved. It also undertook to advance payments in marks to German creditors, when the claims were admitted.

It is not surprising, therefore, that the German clearing office early got behind in transmitting the cash balances required under the agreement outlined above. Substantial balances of claims for compensation as well as for settlement for contract debts had been presented by the Allied clearing offices throughout the summer of 1920, and in November of that year the German clearing office was obliged to request an alteration in the system of settling balances. After considerable discussion between Allied prime ministers and the directors of the Allied clearing offices, an agreement was entered into with the German representatives at London on June 10, 1921, in accordance with which a fixed monthly instalment of £2,000,000 was estimated for various balances. This instalment was to be divided *pro rata* among the Allied clearing offices in the settlement of their admitted claims. But this agreement also soon broke down and in August, 1922, the German government requested the further reduction of these fixed instalments to an amount not in excess of £500,000. Before an arrangement to this effect could be made, the Ger-

man treasury was forced to default the instalment of approximately £2,000,000 due in August.

The agreement of June, 1921, was thereupon denounced by all the interested powers and the controllers of the clearing offices were instructed to conclude forthwith a new arrangement with the German government as to the settlement of these balances. When the second report of the controller of the British clearing office was issued (Sept. 26, 1922) the matter was still under negotiation; but subsequently, Germany was given a moratorium until June 30, 1923, as to all clearing-house foreign payments.

It will be of some interest to note that according to the *Second Annual Report of the Controller of the Clearing Office* (page 17), there had been admitted by the German office and paid to British claimants by the British office on Sept. 26, 1922, a total of £39,203,736 5s. 9d, and admitted by the British office with consequent credit to Germany, a total of German claims against British debtors of £15,999,832 1s. 3d. The greater part in both cases had been contested and was under further consideration by respective clearing offices or even subject to adjudication by the mixed arbitral tribunals. The report of the controller gives (page 23) a summary statement as of March 31, 1922, for the cash actually received from the German clearing office by the Allied clearing offices, contrasting in each case with the amount paid to the Allied creditors by the respective offices (the latter amount, of course, being equivalent to the admitted claims). The

values are given in sterling, into which other currencies have been converted at an arbitrary rate approximating the average rate of exchange on London.

Country	Cash received from the German Clearing Office*			Cash paid to Allied Creditors*		
	£	s.	d.	£	s.	d.
Belgium.....	2,585,749	8	10	1,435,468	19	1
Great Britain.....	20,077,559	15	9	34,434,980	12	7
France:						
Paris office.....	4,775,285	9	0	4,382,872	8	0
Strasbourg office...	4,093,679	1	0	3,598,285	5	4
Greece.....	773	0	11	13,009	11	10
Italy.....	Nil			Nil		
Siam.....	19,719	8	8	10,293	18	8
	31,552,766	4	2	43,874,913	3	4

\* The amounts include treaty interest to date of admission.

The process of securing the proceeds of liquidation and compensation (under Article 297 of the Treaty of Versailles) had not resulted at the end of the fiscal year for which the controller's second report was made, March 31, 1922, in the transfer of any actual cash from the German clearing office to that of Great Britain. Of nearly 58 million pounds sterling of claims forwarded by the British office to the German office, more than 37 millions were still under consideration on March 21, 1922, about 9 millions had been abandoned, just above 2 millions had been awarded by arbitral tribunals, and the

German clearing office had credited proceeds of liquidation to the amount of £14,948,000. This last-named sum was intended to be paid as soon as possible from the balance of the proceeds of the liquidation of German property in England left over after any prior charges (such as the contract debts of Germans) had been covered. The following table indicates what has been paid out by the Allied clearing offices to their respective claimants, on the basis of either tribunal awards or German admissions, and it indicates further the total credits which these clearing offices will be entitled to collect from the German clearing office. The exchange conversions have been made at the arbitrary rate indicated above.

Countries	Total Credits Admitted by German Clearing Office		Payments to Claimants by Allied Clearing Houses			
			Proceeds of Liquidation, Article 297 (h)		Compensation, Article 297(e)	
	£	s. d.	£	s. d.	£	s. d.
Belgium.....	275,331	6 7	Nil		Nil	
Great Britain....	17,519,732	18 7	14,948,034	8 4	Nil	
France:						
Paris Office....	2,806,236	9 1	338,989	16 2	243,075	12 8

It may be of interest in just this connection to note the statement given by the German government of the amounts actually paid over to the clearing offices of the other countries to Jan 15, 1922. The

statement is to be found on page 60 of the pamphlet entitled "Carrying out of the Treaty of Versailles from Jan. 10, 1920, to Jan. 10, 1922," published at Berlin, 1922.

From the beginning of the Clearing House Procedure to Jan. 15, 1922, inclusive, there have been paid altogether to the Opposing Clearing Offices the following amounts:

To the British Clearing Office.....	£19,013,008 14s. 0d
To the French Clearing Office.....	192,222,376. 97 francs
To the Alsace-Lorraine Clearing Office..	250,311,255. 97 "
To the Belgium Clearing Office.....	133,928,892. 27 "
To the Greek Clearing Office.....	73,614. 93 drachma
To the Siamese Clearing Office.....	£19,715 10s. 11d

The collection of these amounts necessitated the expenditure of about 15 milliard (paper) marks.

The amounts of paper marks required for the payments after January, 1922 rapidly became far more burdensome until, as has been indicated above, the deliveries practically broke down in August.

Up to Nov. 30, 1922, the German government paid out about 615 million gold marks through the clearing office, according to the official publication "Deutsche Wirtschaftslege," Berlin, 1923, page 12.

## APPENDIX F

### THE VALUATION PROBLEM IN CONNECTION WITH GERMAN TREATY FULFILLMENT

As stated in the note on p. 73, we have refrained from any examination of the methods of valuation used in calculating the claims against Germany filed with the Reparation Commission. It is not because we fail to realize that the fair examination of the extent and character of these claims must precede any really final solution of the reparation problem, but chiefly because there is not enough information available on the subject. Such of it as has been brought together and published by the German commission established to deal with this matter (*Kriegslastenkommission*) leads the investigator to wonder in accordance with what sound business principles the bills were drawn up.<sup>1</sup> The answer to this question is, however, not directly involved in the discussion of Germany's capacity to pay which we have undertaken. We are interested only in the valuation methods which the contending

<sup>1</sup> See the three detailed volumes entitled "Die Kriegsschädenrechnungen der alliierten und assoziierten Mächte," Berlin, 1922. See also J. M. Keynes, "A Revision of the Treaty," 1922, chap. IV.

parties have used in estimating the value of what Germany has paid, delivered, or transferred to her late enemies. It has seemed necessary to take up at greater length than the limits of the text would permit, certain aspects of the valuation problem.

### 1. THE STATEMENTS OF THE REPARATION COMMISSION

From time to time the British and French governments have published official statements based upon extracts from the accounting records of the Reparation Commission. Whether in detail or in summary form, these statements are all avowedly provisional. The most detailed statement emanating from the Commission available to the authors while this study has been in course of preparation is the one entitled "Statement of Germany's Obligations at April 30, 1922."<sup>1</sup>

This official statement divides the record of German payments into two distinct periods, the first extending from Nov. 11, 1918 to April 30, 1921, and the second covering the first so-called reparation year, *viz.* May 1, 1921-April 30, 1922. The following table shows the amounts which the Reparation Commission acknowledges having received during these two periods.

<sup>1</sup> London, 1922; this is No. I of a series of Reparation Commission documents published in English and French. It is understood that No. IV appeared in the late spring of 1923, with detailed figures bringing the provisional accounts down to Dec. 31, 1922. Summary statements which purport to present the situation as of Jan. 31, 1923, have been available (cf. Appendix D, p. 311).

RECEIPTS FROM GERMANY TO APRIL 30, 1922 ACKNOWLEDGED  
BY REPARATION COMMISSION

(In gold marks)

Period *	A Cash from Germany	B Cash from Other Sources Credited to Germany	C Deliveries in Kind †	D State Prop- erty in Ceded Ter- ritories (and other capital items) ‡
Nov. 11, 1918- April 30, 1921	.....	84,121,000†	2,483,290,000	2,504,342,000
May 1, 1921- April 30, 1922	1,313,660,496	28,000,000†	564,154,233	

\* In point of fact, not all the payments were actually made within these precise periods.

† Miscellaneous credits are included here, such as Schleswig's proportion of German pre-war debt. France is recorded as having paid the Commission 643,000 gold marks for Germany's proportion of the capital of the Moroccan State Bank. Germany is credited with these amounts, as well as with the proceeds of sales of converted war material and receipts from the Rhine Customs Zone.

‡ Including ships, docks, livestock, reconstruction material, coal, by-products of coal, dyestuffs, and the like; also armistice deliveries; also submarine cables.

§ Column D includes various items, some of which will be transferred to Column B when the cessionary powers have agreed as to the portions of German pre-war debt for which Germany will be given credit. (See note †.) The items strictly classifiable as estate property, with provisional assessments are: Saar coal mines, M. 400,000,000; German share in French concession at Shanghai, M. 2,042,000; property in British concession at Shameen, M. 538,000; property in Kiao-Chow, M. 59,000,000; property acquired by Czechoslovakia, M. 5,640,000; Danzig, M. 300,000,000; Poland, M. 1,712,025.

There are other deliveries enumerated in the report of the Commission but classified as "suspense items". The figures for these items in three instances



are recorded as from German sources. They consist of the following, in millions of gold marks:

Saar coal delivered to France prior to German cession of the Saar (German figure).....	1
Currency furnished to the armies of occupation to April 30, 1921.....	485
Goods and services furnished to the armies of occupation to Nov. 30, 1920 (German figure).....	600
Expenses of inter-Allied commissions to Nov. 30, 1920 (German figure).....	40
	1,126

These items, it will be observed, are mainly expenses connected with the armies of occupation. While these figures have not in all cases been finally accepted by the Reparation Commission, there is little reason to believe that they are materially in error. Adding this total of 1,126 million gold marks to the 6,977 millions, we have a total of more than 8,000 million gold marks which the records of the Commission permit us to regard Germany as having paid up to April 30.

This total, it should be definitely understood, does not include payments under all of the accounts enumerated on pp. 62-3 in the text. It includes only reparation and costs of the armies of occupation. Restitution, pre-war debt-settlement expenditures, and all the other items for which Germany was not intended to receive any credit under the reparation clauses (Articles 231-244) are not accounted for in this approximate total of 8,103 million gold marks.

In its report of payments to Aug. 31, 1922,<sup>1</sup> the

<sup>1</sup> *Federal Reserve Bulletin*, February, 1923.

Reparation Commission's total of acknowledged receipts rises from 6,977 million gold marks to 7,835 million gold marks. Of this total, 21 per cent was paid in gold or foreign currency, 45 per cent in kind, and 34 per cent in state property. It is remarked in the *Federal Reserve Bulletin* that 39 per cent of the total paid was absorbed in occupation expenses and food advances.

Another statement which appears to have emanated from the Reparation Commission and which has been made available by the International Labor Office of the League of Nations gives figures down to Sept. 30, 1922, being in this respect comparable with the long official statement of the German Commonwealth to which reference is made on page 331. According to this table, the Commission acknowledges the receipt of 5,520 millions in cash or other liquid forms of payment and 2,605 millions in kind, a total of 8,125 millions. From this must be deducted, the Reparation Commission goes on to point out, 3,249 millions to cover occupation expenses and advances made to the German government. In other words, the net credit assignable to Germany on reparation account according to this particular statement would be 4,876 million gold marks. The German government has checked up these figures, and submits a total for each item therein contained greater in every instance than the ones reached by the Reparation Commission. For the same items included in the Reparation Commission's statement under cash, the German government lists 11,961 million gold marks; and for those items only which

are given by the Commission under deliveries in kind and state property, the German government reaches the total of 6,714 millions. Its total, in place of the 8,125 million gold marks announced by the Reparation Commission, is 18,676 million gold marks.

Finally, there is available the statement of the Commission as of Jan. 31, 1923, which is as follows.

## STATEMENT OF GERMANY'S REPARATION ACCOUNT, JANUARY 31, 1923

(In thousands of gold marks)

Main Accounts	Payments Made	Balance Due
On pre-May 1, 1921, army costs and coal advances.....	2,622,835	913,033
On capital debt.....	2,553,905	134,950,095
On post-May 1, 1921, army costs.....	321,455	71,216
On schedule of payments account:		
On instalments due Nov. 15, 1922..	2,427,792	2,503,545
On instalments falling due Nov. 15, 1922 .....	80,339	80,339*
	8,006,326	138,457,550
Additional army cost payments*....	630,603	

\* Amount is subtracted from the balance due, and is presumably an advance payment.

Army costs since Jan. 31 have been accumulating at the following rate:

French and Belgian troops, 16 francs per man per day.

British troops, 16 francs plus 2 gold marks per man per day.

During 1923, the 6-months treasury bills given to Belgium fall due.

Beginning July, 1923, 2 million pounds sterling per month are due through the clearing house system in settlement of pre-war private debts.

## 2. THE GERMAN OFFICIAL STATEMENTS

Not until after the middle of 1922 were the German statements of deliveries, payments, and property transfer in fulfillment of the Treaty of Versailles submitted in detail; up to that time only aggregate figures with fragmentary explanation appear to have been published.<sup>1</sup> In the summer of 1922 a pamphlet entitled "The Carrying Out of the Treaty of Versailles from Jan. 10, 1920 to Jan. 10, 1922" furnished an explicit record of German payments, deliveries, and transfers under the treaty, considering it in the order of its articles. An analytical statement appeared in the *Manchester Guardian Commercial, Reconstruction Series*, sect. 7, p. 474ff, signed by Dr. F. Schroeder. This statement was brought up to Sept. 30, 1922, in a document published in both English and German on the authority of the various German diplomatic missions abroad in the early months of 1923. The table is reproduced in full below. It reaches a total of 56½ billion gold marks, representing the value of payments, deliveries, and transfers apart from the value of the ceded territories both in and outside of Europe as future sources of revenue. Even in this total of 56.5 billions, certain deliveries are not included by the German government because it is contended that they

<sup>1</sup> Exception must be made of the costs of occupation, in connection with which a great many details were furnished by the German government in official statements made in 1920 and 1921, as well as in 1922.

were required without justification under the treaty. The table, which covers payments from Nov. 11, 1918, to Sept. 30, 1922, is as follows. All amounts are in gold marks.

### EXECUTION OF THE VERSAILLES TREATY

#### I

#### DELIVERIES FROM MATERIALS ON HAND AND CESSION OF PROPERTY WITHIN THE REICH AND ABROAD

1. Property of the Reich and of the states (exclusive of Eupen-Malmedy, Alsace-Lorraine, and the colonies) . . . . .	5,507,616,000
<i>Add.</i> Property of the Reich and of the states in Eupen-Malmedy . . . . .	150,000,000
2. Saar mines . . . . .	1,017,570,000
3. Private and public cables . . . . .	79,410,000
4. Non-military property left in the territory evacuated by the German troops on the western front . . . . .	1,897,150,000
5. Railroad and pontoon bridges over the Rhine (part belonging to Baden) . . . . .	9,611,000
6. Shares of the Morocco State Bank and value of the stocks and bonds delivered in accordance with Art. 260 of the peace treaty . . . . .	392,643,000
7. German property liquidated abroad . . . . .	11,740,000,000
8. Germany's claims on her former allies ceded in accordance with the peace treaty . . . . .	8,600,000,000
Total . . . . .	<hr/> 29,394,000,000

## II

PAYMENTS AND DELIVERIES FROM NATIONAL CAPITAL AND CURRENT  
PRODUCTION

9. Railroad material delivered in accordance with the Armistice terms, including reserve parts, motor trucks, all locomotives, rolling stock, and other railroad equipment in the ceded territories (inclusive of Upper Silesia, exclusive of Memel district, Denmark, and Eupen-Malmedy) . . . . .	2,238,433,000
10. Ocean-going vessels (inclusive of vessels in American waters and ships on which an embargo had been placed) and fishing boats, ships of inland waterways, harbor equipment, and river boats . . . . .	6,020,391,000
11. Coal without by-products (world market price) . . . . .	2,333,600,000
12. Deliveries for reconstruction in accordance with the Armistice terms (for instance, coal by-products, animals, pharmaceutical products, machinery, tools, woods, University of Louvain, paintings, etc.) . . . . .	520,576,000
Total . . . . .	11,113,000,000

## III

## CASH PAYMENTS

13. Payments in foreign exchange . . . . .	1,580,000,000
14. Sale of destroyed and damaged war material (scrap), estimate . . . . .	200,000,000
15. Rhineland customs and other revenue from the economic sanctions of 1921 . . . . .	69,337,000
16. Yield from the English Recovery Act . . . . .	126,295,000
17. Miscellaneous (war expenditures of Alsace-Lorraine, Franco-German pension agreement, guarantees given to the Guarantee Committee, etc.) . . . . .	164,368,000
Total . . . . .	2,140,000,000

## IV

## OTHER PAYMENTS AND DELIVERIES

18. Clearing house operations.....	603,000,000
19. Internal costs of occupation including mark advances (the external costs of occupation—i.e., the expenses, borne in the first instance by the powers occupying German territory, and met without mark advances—are paid by Germany by means of deliveries in kind. These costs amounted to 3.4 billion gold marks on April 30, 1922).....	861,000,000
20. Cost of the Reparation Commission and the other Inter-Allied Commissions.....	90,000,000
21. Restitutions and substitutions (i.e., deliveries of material restored or substituted) of machines, tools, ships, and animals—estimate..	400,000,000
22. Navy delivered to the Allies exclusive of those vessels interned in Scapa Flow, but inclusive of the marine equipment in Tsingtau ceded to Japan—Articles 184, 185 and 188 of the Peace Treaty.....	1,417,000,000
Total.....	<u>3,371,000,000</u>

## V

## EXPENDITURES AND LOSSES WITHIN GERMANY

23. Military disarmament (exclusive of sales of scrap), estimate, (army, navy, or air material undamaged or destroyed), delivered to the Reparation Commission, or sold to the highest bidder, the proceeds to be credited to the Allies. The yield from the sales of scrap was credited to capital account (vide supra 14)...	6,250,000,000
24. Industrial disarmament, estimate.....	2,700,000,000
25. Non-military material left by the German troops in the evacuated territory on the eastern front, estimate.....	1,050,000,000
26. Miscellaneous (costs of plebiscites, determining frontiers, transfers, care of refugees, etc., estimate.....	482,000,000
Total.....	<u>10,482,000,000</u>

## SUMMARY

I. Deliveries from materials on hand.....	29,394,000,000
II. Payments and deliveries from national capital and current production.....	11,113,000,000
III. Cash payments.....	2,140,000,000
IV. Other payments and deliveries.....	3,371,000,000
	<hr/>
V. Expenditures and losses within Germany.....	46,018,000,000
	10,482,000,000
	<hr/>
Total.....	56,500,000,000

If, to this total, the value of Alsace-Lorraine, of the German colonies, and of the purely military material in the various evacuated territories be added, the figures representing Germany's total payments and deliveries run well above 100 billion gold marks.

The total of 56.5 billion gold marks has been reached by converting each disbursement in paper marks at the exchange rate prevailing at the time of payment and adding the converted items. Because of the difficulties involved in this conversion, it has seemed preferable to use the official German table of disbursements to which reference was made in page 65 and following, wherein payments, deliveries, and property transfers are classified according as made in gold marks (or on gold mark valuations) or in paper marks. The totals in this table have been used by the authors as the most authoritative German statement, not only because of the detail as to the form in which payment was made, but also because all its items are classified clearly as to their applicability to reparation account.



COMPREHENSIVE SUMMARY OF GERMANY'S PAYMENTS AND DELIVERIES OF EVERY DESCRIPTION IN ACCORDANCE WITH THE TREATY OF PEACE, AND AGREEMENTS PRIOR AND SUBSEQUENT THERETO, NOV. 11, 1918 TO SEPT. 30, 1922

I. Payments, deliveries, or transfers of property rights now or later capable of exact determination and applicable to Germany's capital debt:

	Millions of Gold Marks
A. Property, goods, securities, or payments acknowledged or credited in whole or in part.	
1. National or state public property in ceded territories in Europe.....	5,044.1
2. Proportionate share of the German pre-war public debt (national or local) as fixed by the Reparation Commission in its Document 1927 A and B.....	485.0
3, 4, 5. Property in Shameen (Canton), Shanghai, and Shantung, China.....	61.6
6 (a). Saar mines—including privately owned mines and those of the Prussian and Bavarian governments.....	1,016.0
6 (b). Additional Saar deliveries.....	1.1
7. Privately owned maritime cables.....	77.8
8. Non-military property abandoned on the western front, including miscellaneous railroad material.....	1,897.2
9. Railroad equipment.....	368.1
10. Five railroad bridges and 10 pontoon bridges across the Rhine.....	9.6
11. Shares of the State Bank of Morocco.....	0.6
12. Railroad rolling stock, freight cars, etc.....	1,265.7
13. Shipping:	
Delivered.....	3,192.4
Interned.....	1,245.2
Seized by United States.....	1,250.7
Forty fishing vessels belonging to government.....	20.2
Scapa Flow salvage.....	45.4
	5,753.9

14. Inland water craft.....	78.0
15. Live stock.....	192.9
16. Coal, coke and by-products.....	473.2
17. Dyestuffs and pharmaceutical products.....	43.8
18. Miscellaneous deliveries in kind:	
Penal deliveries.....	24.9
Industrial machinery.....	2.2
Other machinery.....	1.7
All other.....	1.2
	30.0
19. Cash derived from the sale in Germany of scrapped military material paid in francs or sterling to Reparation Commission..	200.0
20. Miscellaneous cash deliveries.....	0.5
21. Rhineland customs and other "sanction" proceeds up to April 30, 1921. (150 millions in paper marks of spring of 1921, of which approximately 30 millions were converted to 3.3 million gold marks. The remaining 120 millions are counted below in the totals for paper marks).....	3.3
	17,002.4
B. Estimated value of seized and liquidated German property abroad.....	11,700.0
C. Surrendered claims of Germany on her wartime allies (including Austria-Hungary, 4,200 mil- lions, Bulgaria, 2,000, and Turkey, 5,400) ...	11,600.0
	40,302.4
(In addition there are 120 millions in paper marks men- tioned in 21).	
II. Payments, deliveries or transfers of property rights now or later capable of exact determination and applicable to the annual payments fixed in the London schedule of payments (May 1, 1921-Sept. 30, 1922):	
A. Deliveries in kind:	
1. Railroad rolling-stock deliveries made in this period but in pursuance of Armistice provi- sions; and penal deliveries.....	4.0
1 (a). Railroad equipment in ceded territories..	632.7

**THE VALUATION PROBLEM**

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2. Shipping.....	161.3
3. Inland water craft.....	28.4
4. Livestock.....	80.4
5. Coal, coke, and by-products.....	456.5
6. Dyestuffs and pharmaceutical products.....	27.9
7. Reconstruction deliveries.....	129.3
8. Louvain reconstruction.....	1.0
9. "Sanction" payments (practically all under British Recovery Act).....	126.3

Total of A..... 1,647.8

**B. Payments in cash:**

10. Payments in bills of exchange.....	1,580.0
11. Payments in bills of exchange covering secur- ity payments for export-tax collections Oct. 15-Dec. 31, 1921.....	44.9
12. Miscellaneous cash (gold shipment to United States, etc.).....	0.9

Total of B..... 1,625.8

Totals of A and B..... 3,273.6

(In addition there are 1,109 million paper marks, not appearing above).

C. Value of securities delivered to the Reparation Commission under Article 260 of the treaty (negotiations concerning the valuation are still in progress).....

303.0

Total of II..... 3,577.0

*Total of I and II (representing amount for which reparation credit is expected by Germany), 43,879 million gold marks, plus 1,229 million paper marks.*

III. Payments, deliveries, and transfers of property rights made by Germany in fulfillment of the treaty, not applicable to reparation credit. (Estimates not final.)

A. Clearing house payments..... 603.0

B. Franco-German convention concerning indemnification of Alsace and Lorraine for subscriptions to German war loans..... 28.0

C. Franco-German convention concerning civil and military pensions in ceded territories.....	14.0
D. Payment to the state of Sao Paulo, Brazil, covering coffee-valorization funds held in Germany before the war.....	1.0
E. Reparation Commission maintenance.....	35.0
F. Value of artistic objects delivered to Belgium...	11.0
G. Value of national and state public property delivered to Belgium in Eupen-Malmedy.....	150.0
<b>Total.....</b>	<b>842.0</b>
	Millions of Paper Marks
H. Domestic occupation costs (including those for United States troops).....	12,898.0
I. Inter-Allied military commissions.....	2,414.0
J. Other non-reparation deliveries or payments (restitution, disarmament, and frontier fixing).	15,185.0
K. Expenditures within Germany (for the care of refugees from former German colonies, compensation for damage done in the colonies, etc.)	11,180.0
L. Security payments to the Committee on Guarantees.....	3,375.0
M. Miscellaneous.....	481.0
<b>Total.....</b>	<b>45,539.0</b>

*Total of III (representing amount for which Germany does not expect reparation credit) 842 million gold marks, plus 45,539 million paper marks.*

**Grand total, 44,721 million gold marks,  
plus 46,762 million paper marks.**

The differences between the table entitled "Comprehensive Summary" and the table found on page 327, entitled "Execution of the Versailles Treaty" are due not only to currency calculations, but also to the fact that they differ as to the items included and the bases of valuation. In the "comprehensive summary" the aggregate coal value is

in the neighborhood of 930 million gold marks, while, according to world market prices, the computation in the other official list is given as  $2\frac{1}{3}$  billions. It was the German domestic price which was to be used in computing the value of coal according to the direction of the Reparation Commission. The two statements differ likewise in the valuation placed on the war-time obligations of Germany's allies, the statement which we have taken as more authoritative placing them at 11.6, rather than at 8.6 billion gold marks.

The propriety of including the cost of military and industrial disarmament in the more general and less detailed statement need not be discussed at this place. Doubtless, from the German point of view, the wholesale break-up of plants and equipment originally constructed for military purposes but easily adaptable to peace-time industry may properly represent a loss chargeable to treaty fulfillment.

### 3. VALUATION IN LAW

We have referred in the text to the wide difference between the principles of valuation which appear to have guided the Reparation Commission and those which have guided the German government. There seems to be good ground for holding that in so far as relates to expropriation in municipal law, the person dispossessed is to be given credit for the value to him of the thing taken at the time of taking, and not for the value to the expropriator at that or any other time.

The United States Supreme Court in the case of *Monongahela Navigation Co. vs United States* (1893) 148 U. S. 312, 325, 341, 343, held that although the United States acquired only the lock and dam of the company and although the state franchise under which the company operated was useless to the government, nevertheless the government would have to pay for the franchise because it was of value to the company.

It is also suggested that the government does not take this franchise; that it does not need any authority from the state for the exaction of tolls if it desires to exact them; that it only appropriates the tangible property, and then either makes the use of it free to all, or exacts such tolls as it sees fit, or transfers the property to a new corporation of its own creation, with such a franchise to take tolls as it chooses to give. But this franchise goes with the property; and the navigation company, which owned it, is deprived of it. The government takes it away from the company, whatever use it may make of it; and the question of *just compensation is not determined by the value to the government which takes, but the value to the individual from whom the property is taken*; and when by the taking of the tangible property the owner is actually deprived of the franchise to collect tolls, just compensation requires payment, not merely of the value of the tangible property itself, but also of that of the franchise of which he is deprived.

Commentators on this decision and state decisions have held that compensation must be "a full and perfect equivalent for the property taken".<sup>1</sup>

<sup>1</sup> John Lewis, "Eminent Domain" third edition, Chicago, 1909, Sec. 684: "'Just compensation,' therefore, as used in the Constitution, means a fair and full equivalent for the loss sustained by the taking for public use." Cf. Sec. 678 and 680 and cases cited. Cf. Borchard, "Diplomatic Protection of Citizens Abroad," New York, 1916, Sec. 104.

On May 21, 1923, the Supreme Court of the United States handed down a decision of considerable interest in this connection, and some extracts are quoted from it. (*United States vs New River Collieries Company*).

"On various dates between Sept. 17, 1919, and Feb. 1, 1921, at Hampton Roads, Virginia, the United States requisitioned from defendant in error upwards of 60,000 tons of bituminous coal for use of the Navy. The taking was under Section 10 of the Lever Act. (40 Stat. 276.) The President, acting through the Navy Department, fixed certain prices as just compensation. These were not satisfactory to the owner. . . . When the coal was taken, there was at Hampton Roads a market for coal for export and also a domestic market. . . . There was a strong demand for export coal. . . . Supply and demand were controlling factors affecting market prices which prevailed in both the export and domestic markets. The prices for export coal were considerably higher than for domestic coal. If the coal had not been taken by the United States, it could have been sold by the owner at export market prices. . . . The owner was entitled to the full money equivalent of the property taken, and thereby to be put in as good position pecuniarily as it would have occupied if its property had not been taken. . . . The ascertainment of compensation is a judicial function, and no power exists in any other department of the Government to declare what the compensation shall be or to prescribe any binding rule in that regard. . . . Where private property is taken for public use, and there is a market price prevailing at the time and place of the taking, that price is just compensation. . . . The United States admits that market value is usually the basis for ascertaining the pecu-

niary equivalent, but suggests that sometimes an article has no market price and that in such case 'proof of real value' is admissible and that therefore market value and just compensation are not necessarily synonymous. The court below excluded evidence offered by the United States to show the owner's cost of production and a reasonable profit. This ruling was right, because it was shown beyond controversy that there were market prices prevailing when and where the coal was taken. The United States had the right to take the coal on payment of these prices; the owner was not entitled to more and could not be required to take less. The owner's cost, profit, or loss did not tend to prove market price or value at the time of taking, and was therefore immaterial. . . . The facts bring this case within the rule stated by the Circuit Court of Appeals (276 Fed. 690, at p. 692):

If it be an article commonly traded in on a market and it is shown that at the time and place it was taken there was a market in which like articles in volume were openly bought and sold, the prices current in such a market will be regarded as its fair market value and likewise the measure of just compensation for its requisition.

The lower courts rightly held that market prices prevailing at the times and place of the taking constitute just compensation. . . . The owner was entitled to what it lost by the taking. That loss is measured by the money equivalent of the coal requisitioned. . . . Export prices . . . were controlled by the supply and demand. These facts indicate a free market. The owner had a right to sell in that market, and it is clear that it could have obtained the prices there prevailing for export coal. It was entitled to these prices."



To what extent do these sound principles apply to the valuation of German deliveries to the Reparation Commission? From a technical point of view, the obligations under the treaty are *contractual* obligations to deliver a wide variety of objects. Some of these objects were described in general terms and the German government might exercise its own discretion in finding the ways and means to furnish them. For example, so many thousand tons of chemical products were to be delivered; where and under what conditions they were to be manufactured and paid for was Germany's affair. Other objects were specifically identified, as, for instance, the Saar mines, the merchant shipping, and the cables. Still other things were to be delivered, where the particular objects were not specifically mentioned, being covered merely by group classifications. No discretion was, however, left to the German government; all things falling within the group had to be delivered. A notable example is the sequestered private property in Allied countries. However classified, all of the objects intended to be covered by the treaty were to be delivered at certain times and in certain ways, all of which were set forth in the Versailles instrument which German plenipotentiaries signed on June 28, 1919.

If, however, we look below the formal language to the real nature of the obligations which the treaty embodies, we cannot fairly regard them as essentially contractual in character. In no branch of the juridical sciences is emphasis upon the significance of

documentary form greater than in the law and custom of international relations, for procedure and other formal sanctions have always been emphasized most strongly in situations where the inherent force of legal principles has been least effective. The Treaty of Versailles consists of a series of conditions and directions *imposed upon* the German people with no alternative to submission, practically speaking, on their part. The fulfilment of these conditions, in whole or in part, could not avoid being tantamount to the expropriation of German private property, it being left to the German government to devise schemes for the future compensation of those whose property had to be taken directly or indirectly to satisfy the terms of the treaty.<sup>1</sup>

German public property in ceded territories was taken by the Allies as a natural consequence of their acquisition of political control over the respective territories. There could be no alternative to the surrender of this property to the Allies. It is now theirs, "whatever use they may make of it,"

<sup>1</sup> The feeble efforts of the German government to protect German traders from the full effect of the treaty clearing-house provisions, by advancing payment to German creditors, only elicited cold disapproval from the British clearing-house controller. "Had the German clearing office law given effect to the treaty provision, there would have been no resultant loss to the German government, for the position of a clearing office is merely that of an agent for the collection and payment of the debts owing by and to its nationals." *Second Annual Report*, p. 6. In other words, the German government should have used its resources to whatever extent might be necessary to satisfy Allied creditors in gold with interest, and permitted German creditors to wait until the liquidation of all the reparation accounts, say, forty years later, might leave some clearing-office balances from which their claims could be paid.

to paraphrase the expression of Justice Brewer quoted above. Since the Allied governments have seen fit to resort to quasi-judicial methods in determining the value of the property delivered or transferred to them, it would seem reasonable to expect that consistent use of "trustworthy modes of computation"<sup>1</sup> would call for the valuation of both state and private property with due reference to the use it had been to its former owners. Whether the value could be equitably and precisely measured by the book valuations at which the property had been carried on the records of the respective public authorities in Germany would of course be a matter open for reasonable discussion. That the public property might be found to be of much less value to the cessionary powers than to Germany is well within the range of possibility; and that it lost practically all its value to Germany, is altogether obvious.<sup>2</sup>

As long as the whole process of valuation has been clothed with legal forms by the powers in a position

<sup>1</sup> Even though the Reparation Commission was expressly declared not to be bound by any rules or principles, it was to be "guided by justice, equity, and good faith." "Its decisions must follow the same principles and rules in all cases where they are applicable. It will establish rules relating to methods of proof of claims. It may act on any trustworthy modes of computation." Treaty of Versailles, part VIII, annex II, 11.

<sup>2</sup> About 29 million gold marks are in dispute between Denmark and Germany, leaving the amount noted by the German authorities as beyond dispute, 5,044 million gold marks. Minute details have been furnished by the German government as to the classes of state property, public buildings, forests, hospitals, schools, mechanical equipment, and the like, throughout the ceded territories in Europe.

to dictate the conditions of peace, the conclusion seems inescapable that all surrendered property, whether public or private, whether specified or indeterminate, must be appraised with serious and equitable regard for its value to the former owners. The payments, deliveries, and property transfers made under the Treaty of Versailles represent in the last analysis the surrender of goods or rights under constraint, and if in computing aggregate totals for the liquidation of treaty obligations, use is made of the forms and terminology of law, the responsible authorities would seem obliged to observe broad principles of the character of those laid down in the courts of the United States—all the more so when these principles have been used in appraising Allied losses.

The analogy, sometimes advanced, that in case of ordinary commercial default the debtor's property may be liquidated at forced sale and credited against the account merely for what it brings in actual cash is not pertinent in this connection. At the time the reparation deliveries in question were made, Germany was not in default. She was in the position of an ordinary solvent corporation with a large amount of current bills payable. Suppose in the latter case the banks and other creditors claimed the right to compel the forced sale of inventories, or even of plant and equipment, in the settlement of obligations on which there had as yet been no default. How long could such a corporation remain solvent? Concretely, if at the peak of prices early in 1920 creditors of American corporations had been

permitted to seize inventories of high value in settlement of current debts—then to hold these goods until after the collapse of prices and throw them upon disorganized markets for what they would bring, how many business corporations could have remained solvent? This is exactly what the Allies have done with Germany in respect to ships and many other commodities. It is bad ethics and bad business procedure; and the law is clear on the point that valuation must be made at the time of delivery.

In any event, if Germany is to be credited, as has been the case thus far, on a valuation basis that compels her to deliver property worth to her several times what it is worth upon liquidation by the Reparation Commission, it is clear that her chances of being able to pay the total sum demanded of her will disappear.

The conclusion of the writers is that the only proper basis of valuation is a reasonable value to the one dispossessed at the time of dispossession. Past international practice furnishes little help in the peculiar cases with which we are now concerned. Accordingly, a decision by a competent committee of impartial jurists on the justice of the procedure that has been followed would prove of inestimable value at this time, when there is so much ground for confusion, as to how much Germany has actually paid.<sup>1</sup>

<sup>1</sup> Professor Charles Gide of Paris is quoted by the *London Economist* of June 2, 1923 (p. 1227), as saying that the true valuation would lie somewhere between the Reparation Commission's

#### 4. EXAMPLES OF VALUATION DIFFERENCES

Not enough exact data have yet been made available to explain clearly the divergencies between the figures given by the German government and those provisionally submitted by the receiving countries. It may help, however, to take up some specific items and set forth the conflicting claims.

For example, the Reparation Commission credits Germany with but 8.9 million gold marks from the proceeds of scrapped military material. The German government declares that 200 million gold marks' worth of military material was turned over to be scrapped. Apparently the process used consisted in the delivery to contractors of material intended for destruction and its subsequent sale by the contractors. The proceeds of the sale were to be delivered to the Reparation Commission and the contractors paid for their services by the German government. Such material as the German government presents impresses us more than the bare and unexplained figure given by the Commission. It is no longer possible to check the records on the matter since the transactions have long since been closed.

With regard to the proportionate share of Germany's national and state pre-war debts for which credit is to be given to Germany on reparation account and that of Germany,—possibly 12 or 14 billion gold marks. The *Economist* remarks that "the basis of valuation will continue to be of importance, for, if fair principles are adopted, it may help to reconcile figures which at the moment are separated by much too wide a gulf."

count, while she is, nevertheless, to continue paying interest and amortization, the amount appears to have been fixed by the Reparation Commission as 485 million gold marks, of which 2 million have actually been credited. The German government claims that these debts, apportioned to the ceded territories, ought to be taken at the stock market prices current on August 1, 1914. There has been no agreement on this point; and until some agreement is reached, the figure 485 millions is set down by the German government. We have included no credit for this item in the provisional list of valuations at the end of this Appendix for the reason, of course, that no *substantial economic* loss to Germany is represented by the eventual credit to be given to her on reparation account. The item illustrates well the difference between tangible economic losses, which we have been interested in segregating, and valuations for treaty credit purposes, which, as we have several times pointed out, must be determined by jurists and economists.

Probably the most controversial item upon which there is a divergence of value is the merchant marine. The German figure of 5,753 millions is based upon the prices in 1919 and 1920, while the figure of the Reparation Commission (749 millions) is based upon liquidating prices at a time of severe shipping depression. In computing the cost of the war to themselves, the Allied governments included at peak values the aggregate value of destroyed shipping. The Reparation Commission, however, refuses to include any credit for interned ships or those seized by the

government of the United States, while, on the other hand, deductions are made for the expense of repair and upkeep. We have decided to set down in the list on page 350 a conservative estimate of 3.5 billions as the very least value to Germany which these ships could have had at the time of delivery.

Another striking difference between the two sets of values is to be found in the case of the Saar coal mines. Germany calculates their value at 1,016 million gold marks, while the Reparation Commission has provisionally set them down at 300 millions. Germany states that the same principles have been used in valuing them that were used in calculating the value of the destroyed coal mines at Lens. It is contended on the other hand that the German valuation is based upon a calculation of all coal to a depth of 6,000 feet, whereas below 4,000 or 5,000 feet mining usually becomes unprofitable. If it were possible to examine carefully the operating records of the mines in the pre-war years and to have available a dispassionate scientific estimate of the recoverable coal, one could arrive at a fairly unprejudiced valuation. This is one of the cases where it seems altogether too obvious for argument that the value to Germany was greater than could ever be the value to the receiving country; the only natural market for the Saar coal is Germany. We have selected the figure 650 millions as a low value to Germany in 1919—a value naturally much less than they would have had after the loss of the Silesian mines.



Reference has already been made (page 334) to the difference in valuation of coal between the various German official statements. This is a case in which the difference between the German "comprehensive summary" and the Reparation Commission figures is to be accounted for largely by the difference in the periods respectively covered.

An interesting point is brought up in connection with the value of railroad material and like property surrendered at the time of the Armistice. Much of it, of course, had been subjected to a wide variety of conditions. When it was transferred to the receiving countries, however, no matter how much it may have deteriorated through the strain of war-time use, this railroad material represented very great value indeed to the German people. The hundreds of thousands of cars, the thousands of locomotives, and the vast tonnage of rails, parts, and other equipment, at the high prices prevailing in 1919, were probably worth to Germany at the time of transfer much more than they could possibly have represented when brand-new, and even more than the material with which they were replaced represented at a later time. Clearly, in this instance, the dispossessed country was deprived of something altogether indispensable to its economic recovery. In our list of Germany's economic losses we have therefore included valuations for this group of objects fairly close to the German totals. Such reduction as we have made is due to the allowance we have felt it reasonable to make for material which called for almost immediate replacement at the time of surrender.

The value of the inland water craft was estimated by Germany at at least 106 million gold marks, and by the Reparation Commission (down to April 30, 1922) at 21 millions. This canal and river fleet was manifestly a part of a going concern and its loss meant a replacement outlay for Germany of much more than 106 million gold marks.

One could go on citing other instances of the difference in value of cables, miscellaneous deliveries, live stock, and other things required of Germany under the Treaty, but it is believed that enough examples of the great difference in valuation have been given. These differences relate chiefly to the items capable of inclusion on reparation account. On the non-reparation items there is no such difference of record, largely because the receiving countries have published very few figures. Restitution, for instance, of property carried away from the occupied districts seems to have reached a very large total.<sup>1</sup> The deliveries of military material have also attained very high figures. For such as were not destroyed and sold as scrap (see page 344) Germany was to receive no credit. The following table contains some of the larger items reported to have been

<sup>1</sup> According to the *League of Nations* (a periodical published by the World Peace Foundation), vol. III, no. 6, December, 1920, the articles restored up to 1920 included 13,560 agricultural machines, 271,000 tons of industrial material, and 407 locomotives. M. Tardieu estimated in 1921 ("Truth about the Treaty," New York, 1921) that 6.5 billion gold marks of material and objects of art had been restored. By July 31, 1922, about 8.5 billion francs worth of works of art, securities, and the like had been restored, or compensation had been made therefor.

delivered by the German government up to December, 1922, to the various inter-Allied military commissions.<sup>1</sup>

5,909,149 rifles and carbines
105,163 machine guns
28,469 trench mortars
38,800,000 rounds artillery ammunition
16,600,000 rounds rifle and grenade ammunition
60,400,000 live fuses
472,200,000 rounds small arms ammunition
335,000 tons of empty artillery cartridges
23,500 tons of empty cartridges and cases
37,600 tons of gunpowder
79,500 ammunition gauges

The miscellaneous expenditures recorded by the German government but not admissible on reparation account according to Allied interpretation of the treaty include subventions for the rebuilding of shipping in partial replacement of the tonnage destroyed or surrendered at the close of the war. The depreciation of the currency has naturally resulted in a great increase in the paper mark values of these subventions, for the ship construction companies were unable to fulfill their part of the contract and have been obliged to appeal to Article 42 of their agreement with the government whereby their compensation might be fixed through arbitral tribunals. In an address to the Reichstag on Jan. 17, 1923, the Chancellor observed that for 1922 alone this item had cost the German treasury 12.9 billion paper marks.

<sup>1</sup> "Deutschlands Wirtschaftslage," p. 13,

## 5. GERMANY'S ECONOMIC LOSSES

The authors have been obliged to use provisional valuations for the more important items of payment, delivery, or property transfer in the light of their examination of the conflicting claims and divergent systems of valuation. A table of tentative valuations follows. It does not represent a mere compromise between the two sets of calculations. Let it be made clear once more that the table which follows and upon which the computation in the text (page 75) is based, keeps clear of technical questions as to how much of what Germany has relinquished may be properly admissible to her credit under the treaty. We think, however, that whether the amount so admissible be greater or less than the aggregate of the items which follow, this aggregate fairly represents the tangible economic value to Germany of what she has lost, insofar as the items capable of credit on reparation account are concerned.

ESTIMATE OF COST TO GERMANY OF REPARATION FULFILLMENT  
TO SEPT. 30, 1922

*(Figures preceded by an asterisk represent valuations differing from those both of the Reparation Commission and of Germany.)*

- I. Payments, deliveries, or transfers of property rights now or later capable of exact determination and applicable to Germany's capital debt.

Millions of  
Gold Marks

- A. Property, goods, securities, or payments acknowledged or credited in whole or in part.

1. National or state public property in ceded territories in Europe..... \*5,000.0

2. Proportionate share of the German pre-war public debt (national or local) . . . . .	*0.0
3, 4, 5. Property in Shameen (Canton), Shanghai, and Shantung, China . . . . .	*0.0
6. Saar mines . . . . .	*650.0
Additional Saar deliveries . . . . .	1.1
7. Privately-owned maritime cables . . . . .	77.8
8. Non-military property abandoned on the western front, including miscellaneous railroad material . . . . .	*1,200.0
9. Railroad equipment . . . . .	*200.0
10. Five railroad bridges and 10 pontoon bridges across the Rhine . . . . .	9.6
11. Shares of the State Bank of Morocco . . . . .	0.6
12. Railroad rolling stock, freight cars, etc. . . . .	*800.0
13. Shipping . . . . .	*3,500.0
14. Inland water craft . . . . .	78.0
15. Live stock . . . . .	192.9
16. Coal, coke, and by-products . . . . .	473.2
17. Dyestuffs and pharmaceutical products . . . . .	43.8
18. Miscellaneous kind deliveries . . . . .	30.0
19. Cash derived from the sale in Germany of scrapped military material paid in francs or sterling to Reparation Commission . . . . .	200.0
20. Miscellaneous cash deliveries . . . . .	0.5
21. Rhineland customs and other "sanction" proceeds up to April 30, 1921 . . . . .	3.3

Total of A. . . . . 12,460.8

B. Estimated value of seized and liquidated German property abroad . . . . . \*10,000.0

C. Surrendered claims of Germany on her wartime allies . . . . . \*0.0

Total of I. . . . . 22,460.8

II. Payments and deliveries or transfers of property rights now or later capable of exact determination and applicable to the annual payments fixed in the London Schedule of Payments (May 1, 1921-Sept. 30, 1922).

A. Deliveries in kind.	
1. Railroad rolling stock deliveries and penal deliveries made in this period but in pursuance of Armistice provisions . . . . .	*2.0
Railroad equipment in ceded territories . . . . .	*400.0
2. Shipping . . . . .	*150.0
3. Inland water craft . . . . .	28.4
4. Livestock . . . . .	80.4
5. Coal, coke, and by-products . . . . .	456.5
6. Dyestuffs and pharmaceutical products . . . . .	27.9
7. Reconstruction deliveries . . . . .	129.3
8. Louvain reconstruction . . . . .	1.0
9. "Sanction" payments (practically all under British Recovery Act) . . . . .	126.3
	<hr/>
Total of A . . . . .	1,401.8
B. Payments in cash.	
10. Payments in bills of exchange . . . . .	1,580.0
11. Payments in bills of exchange covering security payments for export-tax collections, Oct. 15-Dec. 31, 1921 . . . . .	44.9
12. Miscellaneous cash . . . . .	0.9
	<hr/>
Total of B . . . . .	1,625.8
	<hr/>
Totals of A and B . . . . .	3,027.8
C. Value of securities delivered to the Reparation Commission under Article 260 of the treaty . . . . .	
	303.0
	<hr/>
Total of II . . . . .	3,330.6
	<hr/>
TOTALS OF I AND II . . . . .	25,791.4

## APPENDIX G

### BUDGETARY AND TAXATION QUESTIONS

Under the Constitution of April 16, 1871 (Article 70), the states were intended to contribute per capita toward expenditures made in their common interest by the Empire not covered out of imperial revenue. These contributions, known in German budgetary terminology as *Matrikularbeiträge*, averaged 65 million marks annually until 1878. It was expected that after 1879, because of the new customs tariff, the imperial revenue would suffice to meet all imperial expenditures; but inasmuch as certain taxes, including the yield of the customs and tobacco taxes in excess of 130 millions, had from that time on to be divided with the states per capita, the Empire for some years (1883-92, 1895-98) actually paid out more to the states than it received from them. After 1899 the contributions of the states were again in excess of the grants to them from the imperial exchequer. From 1909 on the maximum excess of state contributions over imperial grants to the states was fixed at 80 pfennigs per capita, which resulted, on the basis of the census of 1910, in a payment by the states to the Empire of 51.9 millions.

The new constitution which came into effect on

August 14, 1919, put an end to the contributions of the states as such.<sup>1</sup>

The table on page 356 indicates how important a part the contributions of the states to the Empire and the grants of the latter to the former played in the national finances during the quarter century preceding the war. Another significant fact which has been emphasized in the text was the growing necessity of recourse to borrowing in order to cover the increasing expenditures. According to German financial legislation and treasury regulations, expenditures were divided into two main classes, ordinary and extraordinary, the former in turn being subdivided into recurrent and non-recurrent expenditures. Recurrent expenditures were those broadly classifiable as made for ordinary administrative purposes. Non-recurrent were either capital investments or special administrative expenditures. No exact definition can ever be given of the expenditures which in any country enter the extraordinary budget.<sup>2</sup> Many of them are supplementary estimates for ordinary recurrent purposes where the original estimates were low. In time of war, the financial accounts for the military and naval establishments of the German Empire automatically

<sup>1</sup> *Vierteljahrshefte zur Statistik des Deutschen Reichs*, no. 2, 1921, pp. 54-5.

<sup>2</sup> It is reported that Premier Rouvier of France, when once pressed for a definition of the limitations of the extraordinary budget, declared that the only definition he could give was that an item in the extraordinary budget was an item which the legislative body believed should be in the extraordinary budget. FÖLDES, "Finanzwissenschaft," p. 92.



passed from the ordinary to the extraordinary budget. The pre-war budget contemplated both recurrent and non-recurrent revenues. An outstanding example of the latter was the *Wehrbeitrag* (see page 152). This tax was to be collected over a period of three years in the form of an income tax of from 1 to 8 per cent, or a capital tax of from  $\frac{1}{2}$  to 1 per cent to  $1\frac{1}{2}$  per cent, or both income and capital tax, on the fortunes or income or both of about 1,326,000 individuals and 3,900 companies subject to the tax. Approximately 20.4 per thousand of the population as it stood in 1910 were liable to this tax. The proportion varied widely in the different states from as high as 44.6 per thousand in Bremen to as low as 13.2 per thousand in Sax-Meiningen. Of those liable to the *Wehrbeitrag*, 31.8 per cent paid both on capital and income, 60.2 per cent on capital alone, and 8 per cent on income alone. As was remarked in the text, this tax was of the utmost importance because of the ground which it furnished for later income and property taxation. The wealth of individuals was estimated at 182,351 million marks; 29,807 millions were tax-exempt for one or another reason. The value of the corporations for the purposes of this tax aggregated 4,629 millions. Of the assessment of the property of individuals, 41.6 per cent was represented by landed property,<sup>1</sup> 13.1 per cent by industrial property, and 45.3 per cent by capital

<sup>1</sup> This includes property, or portions of property, hypothecated; the mortgages, consequently, appear twice,—in the property class and in the capital-investment class. But the 182,351 millions of wealth of individuals represent net values, evidences of debt being excluded.

BUDGETS OF THE GERMAN EMPIRE, 1886-87 to 1913-14

(Millions of marks)

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Fiscal Year April 1 to March 31	Receipts						Expenditures				Excess of Ex- pendi- tures Over Receipts from Sources Other than Borrow- ing
	Taxa- tion	Public Service Surplus	Contri- butions to the Empire from the States ( <i>Matrik- ularbei- träge</i> )	Borrow- ings	All Other	Total	Grants to the Federal States ( <i>Über- weis- ungen</i> )	Other Ordinary	Extra- ordinary	Total	
1886-87	389.3	41.3	119.2	46.8	68.6	665.2	137.1	483.9	65.8	686.8	68.4
1887-88	419.4	46.3	170.9	233.1	73.3	943.0	176.3	516.5	177.8	870.6	160.8
1888-89	508.4	39.8	207.8	167.0	59.0	982.0	277.8	526.8	201.9	1,006.5	191.6
1889-90	632.6	48.1	215.3	240.6	61.1	1,197.7	355.0	567.0	180.0	1,102.0	144.9
1890-91	668.1	33.0	301.1	176.3	61.1	1,239.6	378.9	632.2	328.9	1,340.0	276.7
1891-92	683.6	30.9	316.5	309.4	59.4	1,399.8	383.4	694.8	153.0	1,231.2	140.8
1892-93	655.6	36.5	316.3	55.0	61.2	1,124.6	358.9	722.6	150.9	1,232.4	162.7
1893-94	646.9	35.3	369.0	153.2	67.9	1,272.3	338.8	748.6	165.2	1,252.6	133.6

APPENDIX G

1894-95	694.9	21.6	385.4	145.6	65.3	1,312.8	382.9	799.1	123.6	1,305.6	138.4
1895-96	729.4	44.0	382.7	44.2	76.9	1,277.2	400.1	823.5	66.4	1,290.0	57.0
1896-97	799.1	46.4	399.4	15.7	113.1	1,373.7	414.6	880.5	52.4	1,347.5 (g)	10.5
1897-98	803.2	55.0	419.9	39.8	62.8	1,380.7	433.1	854.7	105.8	1,393.6	52.7
1898-99	861.3	52.0	454.9	37.9	66.4	1,472.5	467.6	937.2	66.5	1,471.3	36.7
1899-1900	874.3	57.5	490.0	69.0	72.1	1,562.9	476.9	994.9	78.5	1,550.3	56.4
1900-01	912.8	16.7	527.7	94.4	70.0	1,621.6	508.5	1,044.1	169.3	1,721.9	194.7
1901-02	914.2	24.6	570.9	332.8	92.5	1,935.0	555.7	1,112.4	175.3	1,843.4	241.2
1902-03	918.3	37.3	580.6	32.7	109.7	1,678.6	556.2	1,134.7	131.4	1,822.3	176.4
1903-04	919.3	37.8	565.9	265.0	120.5	1,908.5	541.5	1,181.3	100.8	1,823.6	180.1
1904-05	945.4	35.5	219.7	99.5	143.4	1,443.5	195.9	1,176.0	134.5	1,506.4	162.4
1905-06	1,071.4	33.7	213.3	341.7	122.8	1,782.9	189.1	1,250.8	143.9	1,583.8	142.6
1906-07	1,103.9	35.8	230.2	258.4	91.1	1,719.4	205.9	1,348.9	180.6	1,735.4	274.4
1907-08	1,246.6	.....	226.6	196.0	118.3	1,787.5	195.0	1,552.5 (a)	318.7	2,079.6	488.1
1908-09	1,147.0	.....	220.0	245.0	94.7	1,706.7	195.4	1,558.3 (b)	159.9	1,930.4	468.7
1909-10	1,377.1	.....	169.0	639.0	319.5	2,504.6	120.5	1,728.5 (c)	585.4	2,463.9	598.3
1910-11	1,519.1	60.7	228.5	.....	383.9	2,192.2	180.0	1,840.0 (d)	253.4	2,273.4	43.4
1911-12	1,693.8	89.9	212.0	.....	257.6	2,253.3	163.5	1,738.2 (e)	191.4	2,093.1 (g)	176.0
1912-13	1,723.3	92.5	247.0	.....	183.2	2,246.0	195.1	1,882.8 (f)	146.1	2,224.0 (g)	26.5
1913-14	2,025.1	74.2	255.4	109.3	190.7	2,654.7	203.5	2,520.8	66.7	2,791.0	245.6

(a) Includes 13.4 millions of public service deficit.

(b) Includes 16.8 millions of public service deficit.

(c) Includes 15.8 millions of public service deficit.

(d) Includes 37.8 millions of loans repaid.

(e) Includes 15.8 millions of loans repaid.

(f) Includes 4.3 millions of loans repaid.

(g) Excess of receipts (other than borrowings).

investment and the like. A wealth of interesting information on the *Wehrbeitrag* is gathered in a special number of the *Vierteljahrshefte zur Statistik des Deutschen Reichs*, 1919, Zweites Ergänzungsheft.

WAR REVENUES<sup>1</sup>

In addition to the important taxes or contributions mentioned on page 156 as having been collected between 1914 and 1918, it may be of interest to note the receipts from other taxes.

## WARTIME REVENUES

(In part)

(In millions of marks)

Fiscal Year	Tobacco and Cigarettes Tax	Beer Tax	Alcohol Tax	Stamp Tax	Inheritance Tax	Sales Tax	Property Tax	Export Tax
1913-14	54	130	194	255	46			
1914-15	68	131	228	181	43			
1915-16	80	79	96	165	49			
1916-17	203	55	73	250	65	.....	.....	25
1917-18	420	22	20	466	70	.....	101	281
1918-19	699	33	29	511	78	151	89	517

Fiscal Year	Extraordinary Contribution of 1916	Supplement to Extraordinary Contribution of 1916	War Contribution of 1918
1916-17	38	7	
1917-18	4,036	807	
1918-19	660	132	1,617

<sup>1</sup> See especially R. KUCZYNSKI, *Deutsche Kriegsfinanzpolitik*, in *Deutsche Politik*, 1917, Vol. II, no. 33, and *Deutsche Kriegssteuerpolitik*, in *Annalen für soziale Politik und Gesetzgebung*, 1918, vol. VI, Heft 3 and 4; and "Denkschrift über die finanzielle Lage des Reichs," Reichstag Doc. 254 (July 29, 1920).

WAR TIME EXPENDITURES

The expenditures during the last pre-war year, and the fiscal years within which the war occurred have been analyzed in the "Denkschrift" mentioned on page 358, note 1, as follows.

ORDINARY EXPENDITURES 1913-14 TO 1918-19

(In millions of marks)

Fiscal Year	Civil Administration	General Financial Administration	Administration of Military Forces	Administration of Navy	Colonial Ministry	Administration, Interest, and Sinking Fund of National Debt	Total Ordinary
1913-14	189	7	1,547	451	25	209	2,427
1914-15	182	40	649	317	23	442	1,653
1915-16	173	7	227	39	21	1,319	1,786
1916-17	186	5	170	21	2	2,591	2,974
1917-18	913	27	152	19	2	6,501	6,894
1918-19	186	4	181	21	2	6,753	7,146

EXTRAORDINARY EXPENDITURES 1913-14 TO 1918-19

(In millions of marks)

Fiscal Year	Expended with the War	General War Expenses	National Debt	Total Extraordinary
1913-14	111	....	....	111
1914-15	65	6,936	....	7,001
1915-16	14	23,909	....	23,923
1916-17	10	24,739	18	24,767
1917-18	15	42,188	2,918	45,122
1918-19	11	33,928	2,794	36,835 *

\* Including 151 millions for reconstruction.

Other interesting discussions are to be found in the studies of Professor Charles Rist, "Les Finances de Guerre de l'Allemagne," Paris, 1921, and Professor von Pistorius, "Die deutsche Finanzwirtschaft und der Ausweg aus der Not," Stuttgart, 1920.

#### TAXATION SINCE 1919

An enumeration of the taxes put into effect since 1919 and still in effect at the end of 1922 would be of interest chiefly for the purpose of observing how many of the fundamental laws of the former empire have been amended in the last few years.<sup>1</sup> Statutes dealing with fiscal procedure as well as those fixing rates, have undergone thorough overhauling, in some instances more than once since 1920. By the end of the year 1922-23 the taxes of outstanding importance so far as yield is concerned were as given below, the yield for the fiscal year 1922-23 being shown in each case.<sup>2</sup>

<sup>1</sup> Side by side with the national elected legislative body (Reichstag) to which the Constitution of August, 1919, delegated comprehensive legislative powers, there was erected a Commonwealth Economic Council (Reichswirtschaftsrat) which was to be the keystone of the nation's economic system and to furnish an adequate means for articulate expression to the technical and professional elements of the nation in so far as the formulation of economic laws and policies might require their advice. Since its establishment under the new constitution, the Economic Council has sought to carry out its difficult mandate, but up to the early months of 1923 it has not appreciably affected the course of legislation. It has approximately 325 members, divided into ten groups as follows: (1) Agriculture and forests, (2) fisheries, (3) industry, (4) trade, banking and insurance, (5) transportation, (6) hand labor, (7) consumption, (8) professional and official classes, (9) experts appointed by the federal council (Reichsrat), (10) experts appointed by the executive.

<sup>2</sup> *Deutscher Reichsanzeiger*, April 23, 1923.

**BUDGETARY AND TAXATION QUESTIONS 361**

	In Billion of Marks
Income tax.....	533
Coal tax.....	238
Sales tax.....	229
Export tax.....	187
Import (duties and surcharges).....	95
Tobacco tax.....	65
Traffic tax.....	55
Stock exchange transaction tax.....	43

The income tax rates finally in effect at the end of 1922, and those for 1923 are as follows:

	1922 (end)		1923 (beginning)		
	Income, Marks	Rate Per Cent	Income, Marks		
Up to	4,000,000.....	10	Up to	1,000,000.....	10
Next	200,000.....	15	Next	1,000,000.....	15
	200,000.....	20		1,000,000.....	20
	200,000.....	25		1,000,000.....	25
	400,000.....	30		2,000,000.....	30
	600,000.....	35		2,000,000.....	35
	1,000,000.....	40		2,000,000.....	40
	1,000,000.....	45		2,000,000.....	45
	1,500,000.....	50		3,000,000.....	50
	2,000,000.....	55		3,000,000.....	55
Any further amount....	60		Any further amount....	60	

In 1921 approximately 28 million persons were liable to the income tax. In 1920, about 14.7 per cent of the income was derived from landed property, 21.8 per cent from industry, 2.7 per cent from capital investment, and 60.7 per cent from labor. The income tax has been regularly collected at the source of income, so far as wages and salaries are concerned. Whereas in 1921 less than half the persons liable to income tax were paying it through deduction from wages, salaries, and the like, by the middle of 1922 56 per cent of the total income-tax receipts were

derived from wage and salary deductions, in October, 1922, 72 per cent, in December 84 per cent, and in March, 1923, 95 per cent were so derived.<sup>1</sup>

The coal tax, from April 1, 1922, to March 31, 1923, was collected at the rate of 40 per cent of the value of the coal at the pit; on the latter date it was reduced to 30 per cent. For three months after November, 1922, it was not collected because of the alleged difficulty of the operators in securing currency with which to pay the tax. It has been calculated that the government lost several billions of marks by this arrangement, partly through the fall in the mark during the "moratorium", and partly through the fact that the railroads still paid coal prices which included the tax.

The sales tax is collected at the rate of 2 per cent on all gainful transactions, even exports being now subject to the tax if sold directly by the manufacturer. The sales tax code has been expanded to cover luxury taxation (15 per cent), room hire, storage facilities, and the like (10 per cent), and advertisements (from 1 to 5 per cent). The rate of the general sales tax may soon be raised to 2½ per cent, in order to give the states an increased amount.

The export and import taxes hardly need any special comment. They are both collected according to gold exchange rates. The Commonwealth has been free since Jan. 10, 1923, to alter the customs duties in force in 1914—having been prohibited from

<sup>1</sup> Some of these figures are set forth in Appendix 2 to the report of the Reichstag committee on "tax legislation amendments intended to counteract currency depreciation" (Reichstag Document 5600, March 7, 1923, p. 56).



taking such action prior to that date by the Treaty of Versailles. The changes during the first half of 1923 were insignificant, consisting of reductions on timber and foodstuffs. The consumption taxes call for no special comment. The capital transactions taxes, of which the stock exchange tax is the most important, are likewise based on the value of the securities involved in the various transactions.

It has been difficult to secure any precise calculations of the incidence of taxation in Germany from 1919 through 1922-23. The figures which follow have been taken from the German treasury statements published on May 8, 1922, and on Jan. 15, 1923. They are only provisional, however, and subject to revision. Such estimates as have been available for state and local taxation are so fragmentary as not to justify inclusion in the table.

PROVISIONAL TABLE OF THE INCIDENCE OF GERMAN NATIONAL TAXATION, 1918-19 to 1921-22

(The yield is shown in millions of marks)

Fiscal Year	Direct Taxes		Indirect Taxes		Total Yield	Per Capita
	Yield	Per Capita	Yield	Per Capita		
1918-19	3,766	62.77	2,683	44.72	6,449	107.49
1919-20	3,663	61.05	5,273	87.88	8,936	148.93
1920-21	43,118	718.63	13,446	224.10	56,564	942.73
1921-22	68,395	1,139.92	24,527	408.78	92,922†	1,548.70

† This total includes 7,800 millions paid in government securities (Reichnotopfer) and accounted for in the extraordinary budget. As extraordinary receipts were excluded from the table on p. 159, the total there given for 1921-2 is necessarily smaller than the one which appears here.

Moreover, they do not include certain sources of revenue such as Reichsbank contributions, etc., which are accounted for in the general totals of ordinary revenues on pages 149 and 159. Were sufficient material at hand, however, it is probable that its examination would disclose a fairly heavy per-capita burden in state and local taxes.

By 1922 the old classical division of taxes into direct and indirect had lost its significance.<sup>1</sup> The total receipts (compare page 361) from taxation and compulsory loan in 1922-23 were 1,558,182 million marks or about 24,733 marks per capita (assuming 63,000,000 as the population for the middle of the fiscal period).

#### THE GERMAN NATIONAL DOMESTIC DEBT DURING AND AFTER THE WAR

The funded debt rose to its highest point in 1919-20 as will be noted from the table of imperial and premium loan totals at the top of page 365.

The column headed imperial or commonwealth loan includes certain interest-bearing certificates as well as the perpetual war loan (*Kreigsanleihe*). The decline is by no means to be explained as due to the repayment of the issues, as the interesting table<sup>2</sup> at the bottom of page 365 reveals.

<sup>1</sup> Cf. remarks of Professor Jastrow, in his article, *The New Tax System of Germany* (in *Quarterly Journal of Economics*, February, 1923, pp. 302-341), p. 306 ff. The article is a comprehensive and vivid survey of the German tax situation in 1922.

<sup>2</sup> "Anleihedenkschrift für das Reich, 1922" (Feb. 17, 1923, Reichstag doc. 5557, p. 3).

**BUDGETARY AND TAXATION QUESTIONS 365**

Outstanding, March 31	Imperial or Commonwealth Funded Debt	
	Imperial or Commonwealth Loan	Premium Loan
	(Millions	of marks)
1913	4,586	....
1914	4,698	....
1915	8,277	....
1916	28,299	....
1917	45,583	....
1918	64,123	....
1919	80,988	....
1920	77,041	3,627
1921	69,341	3,629
1922	55,131	3,508
1923	49,517	3,471

**REDUCTION OF FUNDED DEBT (War Loan)**

Total issue of 5 per cent imperial or commonwealth loan.....	Marks 88,578,758,500
Taken in payment for new securities *.....	3,669,898,000
	<hr/> 84,908,860,500
Purchased by the treasury to support the market...	11,775,846,700
Other government purchases.....	12,191,600
Taken in tax collection.....	22,909,387,800
Taken in payment for surplus war stores and material sold in Germany.....	4,013,827,800
Taken in settlement of government insurance premiums.....	112,459,700
Miscellaneous.....	99,000
	<hr/> 38,823,812,600
Outstanding (Sept. 30, 1922).....	46,085,047,900

\* Treasury certificates and notes, some of them long-term, however. No consolidated or "funded" loan has been issued in recent years.

Meanwhile the floating debt continued to increase rapidly. The so-called non-interest-bearing debt (as noted in the text, this comprises in reality interest-bearing obligations since the treasury certificates are discounted by the Reichsbank) has grown prodigiously, especially in 1922-23. The so-called interest-bearing floating debt has declined slightly. The following figures are taken from the German treasury statements.

Outstanding, March 31	Imperial or Commonwealth Floating Debt	
	"Interest-Bearing" *	"Non-Interest-Bearing"
	(Millions	of marks)
1913	220	....
1914	220	....
1915	1,220	7,218
1916	1,936	9,261
1917	4,716	18,552
1918	7,793	33,028
1919	11,408	63,696
1920	10,681	91,473
1921	9,190	166,329
1922	7,029	271,935
1923	6,669	6,601,142

\* In reality, some of these "floating" obligations are long-term securities, redeemable only in 1963, for example. It is only the use of the expression "treasury certificate" which causes these securities to be conventionally classified as floating debt.

For an interesting discussion of items comprising the aggregate "floating" obligations held outside Germany, see Rudolph Will, "Die schwebenden Schulden der europäischen Grossstaaten," Tübingen, 1921.

METHOD OF CALCULATING THE INTERNAL PUR-  
CHASING POWER OF THE MARK

In the table on page 170-171 an attempt was made, as indicated in the text, to reach an estimate of the actual value of treaty fulfillment disbursements of the German treasury. In addition to paper mark totals, the table gives figures in gold marks according to the exchange value of the mark averaged over each fiscal year, and in gold marks according to the internal purchasing power of the mark. These different methods of conversion, giving substantially different results, call for some explanation.

The paper marks involved, if delivered over the German border, would, it is true, command gold only to the value of 6,096 million gold marks. But inside Germany the paper mark had, during the four years in question, a purchasing power averaging about twice its foreign purchasing power. The reasons for this paradox cannot be discussed here. Suffice it to say that, at any time, the ratio of the purchasing power of the mark inside Germany to its purchasing power in another country can be approximately determined by comparing the relation between the general index price level at that time in Germany and the general index price level in the country in question with the exchange ratio existing at the same time between the mark and the currency of the country in question. See "Depreciated Exchange and International Trade," United States Tariff Commission, Washington, 1922, page 11. For example, in April, 1919, the mark was worth one-

third of its 1913 or parity dollar exchange value. If prices in Germany at that time had been no higher than prices in the United States, with relation to the 1913 level (assuming equal gold prices in the two countries in 1913), the mark would have purchased three times as much inside Germany as in the United States. However, as prices in Germany in that month had actually risen to 1.43 times the height of the level of United States prices, the internal purchasing power of the mark was  $\frac{3}{1.43}$  or slightly more than twice its purchasing power in the United States.

Thus, so far as actual cash outlay on the part of Germany is concerned, the gold mark figures for treaty expenditures in any year must be multiplied by the ratio of the internal to the external value of the mark in the year concerned. These ratios were as follows: 1919-20, 2.60; 1920-21, 1.96; 1921-22, 1.81; 1922-23, 1.94.

It has, of course, been impossible to ascertain with precision the dates on which the payments were made by the treasury. Their variety and number ought, in an ideally weighted exchange average for the year, to be duly provided for. To achieve absolute accuracy, each separate payment of paper marks would have to be converted to gold marks or dollars at the rate prevailing on the day or even at the hour of paying. We have had, for the present, to be content with isolating the payments by fiscal years. Disbursements are assumed to be distributed evenly throughout the fiscal year. We know that the

facts as to dates of payment were quite different from what they would have been if this assumption were correct. We know, too, that many payments were made at times when exchange was well below or above the year's average. Consequently, the gold mark values (both those based on foreign exchange quotation averages and those based on the internal purchasing power of the mark) which appear in the table on pages 170-171 must be regarded as wholly provisional in character.<sup>1</sup>

<sup>1</sup> Attention may here be called to an apparent inconsistency between the table on pp. 170-1 and the official "Anleihenrechnung" for 1921 (Reichstag doc. 3556, Feb. 11, 1922, p. 18). The latter states that up to March 31, 1920, the total outlay on treaty fulfillment had been 2,873 millions. The larger sum apparently includes certain disbursements incidental to Armistice fulfillment. If this larger figure had been used on pp. 170-1, the gold mark equivalents in the second and third parts of the table would become 321 and 835 instead of 232 and 603 millions respectively.

## BRIEF TABULAR SUMMARY OF PRINCIPAL OFFICIAL PROPOSALS FOR

(All amounts of money)

June 28, 1919—The Treaty of Versailles (Articles 231, 232, 233) placed the moral responsibility on Germany, and established the Reparation Commission to assess the settlement to be determined by May 1, 1921.

Date	Place of Conference or Brief Name of Proposal (with names of countries officially represented in parentheses)	Cash Payments: Amount, Method, and Duration
April 18-26, 1920, May 15-16, 1920	Conferences at San Remo and Hythe (Belgium, France, Great Britain, Italy, Japan).	Tentative understanding regarding the methods to be followed in assessing Germany and her former allies and dividing their payments. Experts were to work out these amounts for Supreme Council, while the Reparation Commission was also to continue its investigation of the damage done and the methods of collection. An international loan for Germany was to be studied.
June 21-22, 1920	Boulogne conference (Belgium, France, Great Britain, Italy, Japan).	Germany to pay as a minimum 3,000,000,000 annually for 35 years and as a maximum 269,000,000,000 in all, method and time not announced, amount to be fixed according to economic conditions in Germany. Germany was to issue an international loan.
July 5-16, 1920	Spa conference (Belgium, France, Germany, Great Britain, Italy, Japan, Portugal). (The work of this conference was based largely on a meeting of experts at Brussels, July 2 and 3, 1920.)	These mid-summer conferences all discussed proposals of a tentative character based upon the principle of 42 German annual payments aggregating 240,000,000,000 as a maximum.



## SETTLEMENT OF THE REPARATION PROBLEM FROM 1920 TO JUNE, 1923

in gold marks)

ability for all damage done to the populations of the Allied countries "by land, sea, or damage and define the mode and time of payment; both the assessment and form of

Provisions Regarding Deliveries in Kind	Provisions Concerning Guarantees and Conditions	Remarks
		At the second of these meetings it was tentatively agreed that France's debt to Great Britain would be paid <i>pari passu</i> with Germany's payments to France. This agreement was abandoned later.
Military occupation expenses to be first charge on deliveries. Coal deliveries to be increased.	Customs and natural resources to guarantee payments and be subject to forfeiture in event of non-payment.	
Coal deliveries to be fixed at 2,000,000 tons monthly after August 1, 1920.	German delegates emphasize importance of territorial integrity and export surplus as prerequisite to any reparation payments or deliveries.	Chiefly devoted to determination of proportions of distribution of German payments. All over military costs to be divided: 52 per cent to France, 22 per cent to England, 10 per cent to Italy, 8 per cent to Belgium, 4 of 1 per cent to Japan and Portugal each; 6.5 per cent reserved for Greece, Roumania, Jugoslavia, and other countries not represented in the conference. The Austrian and Hungarian payments were also allocated.

## BRIEF TABULAR SUMMARY OF PRINCIPAL OFFICIAL PROPOSALS FOR

(All amounts of money)

Date	Place of Conference or Brief Name of Proposal (with names of countries officially represented in parentheses)	Cash Payments: Amount, Method and Duration
Dec. 16-22, 1920	Brussels conference of financial experts (several intermittent sessions). (Allied countries and Germany.) Recommendation to Supreme Council.	To be required of Germany payable semi-annually. May, 1921-May, 1926, 3 billions annually; May, 1926-May, 1931, 6 billions annually; May, 1931-May, 1963, 7 billions annually. Discount on advance payments 8 per cent until 1923, dropping $\frac{1}{2}$ per cent annually to 5 per cent, 1928. Germany to be permitted to hypothecate her revenues with consent of Reparation Commission as security for an international loan.
Jan. 24-28, 1921	Paris (Belgium, France, Great Britain, Italy).	226,000,000,000 to be paid, partly by fixed annuities, partly by 12 per cent ad valorem export tax, for 42 years; advance payments to be discounted; 8 per cent to May 1, 1923; 6 per cent, 1923-5; 5 per cent thereafter.
March 1-7, 1921	First London conference (German Proposal to Allies) (Belgium, France, Germany, Great Britain, Italy).	Germany proposed total payments of 30,000,000,000 cash, over 30 years, to be derived from a loan of 8,000,000,000 internationally subscribed everywhere tax free, 5 per cent interest. She asked credit for 20,000,000,000 as already paid, to be checked by international commission of experts.
April 24, 1921	German offer through the Secretary of State of the United States to the Allied governments.	200,000,000,000 offered by Germany to be paid on the following basis: The capital sum to be recognised as 50,000,000,000, an international loan to be raised, and Germany to guarantee its service, as well as interest and amortisation of the sum not covered by the loan at 4 per cent, payments on amortisation to vary with German prosperity, as shown by an agreed index; immediate payment of 1,000,000,000 to be arranged.

SETTLEMENT OF THE REPARATION PROBLEM FROM 1920 TO JUNE, 1923—*Cont.*  
 in gold marks)

Provisions Regarding Deliveries in Kind	Provisions Concerning Guarantees and Conditions	Remarks
<p>Minimum deliveries in kind; military costs not to exceed 240,000,000 per annum; return of some German property recommended.</p>	<p>Customs and other taxes to be guaranteed; Germany to suspend her domestic debt service. State and individual guarantees, latter not to exceed 5,000,000,000, to be deposited with Reparation Commission. Prohibition of change in customs rates and foreign credit operations without consent of Commission; creation of an international German debt commission; hypothecation of all customs revenues, and creation of an inter-Allied customs administration.</p>	<p>Germany to be permitted to devote 20 per cent of the international loan to domestic purposes.</p>
<p>.</p>	<p>Failure to complete payments to result in occupation of Ruhr and other territory. Customs to be carefully supervised.</p>	<p>Germany not to be allowed into the League of Nations.</p>
<p>Restoration of what had actually been removed from occupied territory by Germany during the war.</p>	<p>Germany offered security for the loan, but asked that Upper Silesia be returned to her, and that she be granted conditions of commercial equality and economic freedom.</p>	<p>On March 7, Germany submitted an alternative offer, abandoning request for freedom from tax of its loan, and other privileges, and offering 13,000,000,000 in first five years in place of 12 per cent export tax.</p>
<p>Deliveries of material and the like to be charged as cash payment.</p>	<p>Germany requested an assurance that expert figures on reparation payments would be binding on all in the future; she insisted upon return of Upper Silesia and entire economic freedom; and she asked for protection of German private property abroad.</p>	<p>Germany expressed a willingness to take over a part of the debts of European countries to the United States.</p>

## BRIEF TABULAR SUMMARY OF PRINCIPAL OFFICIAL PROPOSALS FOR

(All amounts of money)

Date	Place of Conference or Brief Name of Proposal (with names of countries officially represented in parentheses)	Cash Payments: Amount, Method and Duration
May 5, 1921	Ultimatum (based on Reparation Commission report of April 27) to Germany at close of Conference of London. (Belgium, France, Great Britain, Italy.)	The Reparation Commission announced on April 27 that the damage for which reparation was due amounted to 132,000,000,000. The Council directed Germany to pay this, plus 4,000,000,000 (provisional estimate of the war debt of Belgium) in annual cash payments comprising 2,000,000,000 plus 26 per cent of the value of German exports. Three series of bonds to be issued, two in 1921, the third at discretion of Commission. Series A, 12 billions; Series B, 38 billions; and Series C, 82 billions; to bear 5 per cent interest, 1 per cent amortisation.
Oct. 6, 1921	Wiesbaden Agreement (French and German ministers of reconstruction).	
Jan. 13, 1922	Reparation Commission decision (As result of conferences of Allied prime ministers at London, Dec. 22, 1921, and Cannes, Jan. 4-13, 1922.)	The Commission granted a moratorium to Germany from payment of amounts due under Schedule of Payments (of May 5, 1921) on Jan. 15 and Feb. 15, accepting instead payments of 31,000,000 every ten days from Jan. 18.
Jan. 28, 1922	German offer.	720,000,000 annually distributed evenly through the year.

## SETTLEMENT OF THE REPARATION PROBLEM FROM 1920 TO JUNE, 1923—Cont.

in gold marks)

Provisions Regarding Deliveries in Kind	Provisions Concerning Guarantees and Conditions	Remarks
All military costs to be as before; deliveries of coal, materials, and services to go on, Germany being credited with values.	In case of non-acceptance by Germany, occupation of the Ruhr Valley and forfeiture of customs and other revenues. A Committee on Guarantees was to be established to safeguard Allied interests by examining German records of collection of domestic revenues, export tax, etc.; and supervising actual delivery of funds, commodities, etc.	1,000,000,000 were to be paid by Sept. 1, 1921; this amount was actually paid. The 26 per cent export tax was paid by Germany for first quarter of the fiscal year 1921-22 (250,000,000). The reparation payments and deliveries of Germany's former allies were to be credited to German account.
France to receive materials from Germany in lieu of her share of the 26 per cent export tax, Germany to be credited with not more than one billion marks each year for fourteen years, covering such deliveries.		Practical details worked in two subsidiary agreements (one in February, 1922, between Reparation Commission and German government, and second in April, 1922, between French and German governments). Other Allied governments acquiesced in this arrangement.
Provisions of earlier arrangements regarding deliveries in kind not affected.	Germany was to present plans for balancing budget, fixing tariff in gold, stabilizing currency, making Reichsbank autonomous, prohibiting export of capital.	Payments were made up to the end of March. The Cannes conference was adjourned before it could consider a British plan to reduce total payments from Germany.
1,450,000,000 in kind to be delivered annually.	Germany to balance her budget, raise coal tax to 40 per cent, sales tax to 2 per cent, make public service enterprises self-supporting, make the Reichsbank autonomous and check increase of floating debt by compulsory loan.	Germany requested reduction of all Treaty payments other than reparation to some moderate amount within her capacity.

## BRIEF TABULAR SUMMARY OF PRINCIPAL OFFICIAL PROPOSALS FOR

(All amounts of money)

Date	Place of Conference or Brief Name of Proposal (with names of countries officially represented in parentheses)	Cash Payments: Amount, Method and Duration
March 11, 1922	Paris conference (Belgium, France, Great Britain, Italy, Japan).	This conference, without modifying previously fixed total payments, requested the Commission to study the possibility of a German external loan. The International Bankers Loan Committee, which met between May 24 and June 10, found such a plan impracticable so long as Germany's external payments were not reduced.
March 21, 1922	Reparation Commission decision.	Germany was to pay in all during 1922, 720,000,000, including 281,948,920 already paid; the payments were to be 50,000,000, except on April 15, November 15, and Dec. 15, when they were to be 18,051,079, 60,000,000 and 60,000,000 respectively. The Schedule of Payments was to become operative again in 1922.
Aug. 31, 1922	Reparation Commission decision.	Based partly on discussions at third London Conference (Aug. 7-14, 1922) which in turn was called after Germany requested two and a half years moratorium. Cash payments were suspended (as in case of clearing houses) and the Commission agreed to accept balance of instalments for 1922 in 6-months bills at 4½ per cent.
Nov. 8, 1922	Reply of German government to Commission.	The German government requested an indefinite moratorium on all payments and a revision of total to be paid.
Jan. 3, 1923	Proposal of British prime minister at Paris conference (Belgium, France, Great Britain, Italy).	Two series of bonds to be issued by Germany to Reparation Commission: (A) 50,000,000,000 maturity December 31, 1954, 5 per cent per annum payable semi-annually—interest suspended in entirety for the first four years, and as to 1 per cent for the next four years (down to Jan. 1, 1931); (B) 17,310,000,000 (deferred interest at 5 per cent on Series A compounded to

SETTLEMENT OF THE REPARATION PROBLEM FROM 1920 TO JUNE, 1923—*Cont.*  
 in gold marks)

Provisions Regarding Deliveries in Kind	Provisions Concerning Guarantees and Conditions	Remarks
Wiesbaden agreement to be followed for at least three years. Germany to be credited for coal deliveries at her domestic prices for coal.		This conference was chiefly concerned with the distribution of German payments made up to that time.
1,450 millions gold in kind.	Germany was to impose drastic new taxation by April 30, reform her budget and stabilise her currency. Failure to do so would expose her to the London "sanctions." All fiscal legislative drafts were to be passed upon by the Committee on Guarantees. Measures were to be taken to prevent the flight of capital.	Payments were made through July according to this arrangement.
	In the event of further default, "productive guarantees" were to be seized.	
A moratorium on all deliveries was requested.	Germany asked that she be given credits and ample time to carry out plans for currency stabilization recommended by currency experts consulted in October.	
Deliveries of coal, timber, dyes, etc., to continue, amounts to be determined, and all excess of maximum to be set off against bond interest; special provisions for deliveries in the treaty to be observed.	Germany to agree to currency stabilization plan recommended by majority report of foreign experts in November, 1922, within six months, balance budget within two years, accept supervision of a Foreign Finance Council to which all executive functions of Reparation Commission will be transferred, the lat-	This plan was linked up with cancellation of Inter-Allied indebtedness, partly at once, partly after several years.

## BRIEF TABULAR SUMMARY OF PRINCIPAL OFFICIAL PROPOSALS FOR

(All amounts of money)

Date	Place of Conference or Brief Name of Proposal (with names of countries officially represented in parenthesis)	Cash Payments: Amount, Method and Duration
Jan. 3, 1923	British proposal ( <i>continued</i> )	<p><i>Continued from page 376.</i>  <i>April 1, 1923</i>) or such less amount as an arbitral tribunal might determine, issuable April 1, 1933, maturing March 31, 1965, 5 per cent per annum payable semi-annually. This Series B is to be issued unless Germany proves to an arbitral tribunal before April, 1933, her inability to meet the payments. Series A to replace all previous claims to payment except German bills issued to Belgium; and to be redeemable by Germany after June 30, 1923, at her option, at prices scheduled so as to represent 8 per cent yield at the start, and 5 per cent at the end of the period.</p>
Jan. 3, 1923	Proposal of French prime minister at Paris conference.	Capital amounts as determined in May, 1921; moratorium not to exceed two years; Germany to be permitted to anticipate payments under discount. If any of France's foreign debts were remitted she would be prepared to consider the reduction of the German debt.
May 2, 1923, June 7, 1923	German notes.	Capital debt to be fixed at 30,000,000,000 of which 20,000,000,000 would be covered by international loan dated July 1, 1927, 5,000,000,000 between July 1, 1927 and July 1, 1929, and 5,000,000,000 between July 1, 1929 and July 1, 1931; Germany to do her best to turn over proceeds of these international loans to the Reparation Commission within stipulated periods. Guarantees of service after July 1, 1927, on the loans to consist of: (a) 500,000,000 annually from hypothecation of railroads at 10,000,000,000; (b) 500,000,000 annually from blanket mortgage on industrial and natural resources of Germany; and (c) hypothecation of luxury, tobacco, beer, wine and sugar taxes to yield an amount not fixed, but believed considerably to exceed 200,000,000.



SETTLEMENT OF THE REPARATION PROBLEM FROM 1920 TO JUNE, 1923—*Cont.*  
in gold marks)

Provisions Regarding Deliveries in Kind	Provisions Concerning Guarantees and Conditions	Remarks
	<p><i>Continued from page 377.</i> ter remaining a judicial body. Germany to agree to forfeiture of customs, military occupation and other penalties in the event the Allied Powers find them justified. All loans issued in Allied markets to be applied, unless expressly released, to bond redemption.</p>	
<p>Continuation of deliveries in kind under Treaty. Military occupation costs still to be borne by Germany.</p>	<p>Customs to be collected and various productive pledges to be retained by Allied governments. Inflation of German currency to cease at once. Control of German finance by Reparation Commission to be exercised. Maintenance of export taxes as fixed by London Conference of May, 1921.</p>	
	<p>Evacuation of the Ruhr Valley and restoration of German economic freedom.</p>	<p>German government agrees to an international conference and the determination by an international commission of Germany's capacity to make further payments.</p>

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