

INDUSTRY AND TRADE



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INDUSTRY AND TRADE

A study of industrial technique and business organization ; and of their influences on the conditions of various classes and nations

BY

ALFRED MARSHALL

The many in the one, the one in the many

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PREFACE

THE present volume is a study of industry and trade; with special reference to the technical evolution of industry, and its influences on the conditions of man's life and work. It is designed to be followed by a companion volume, which is to be occupied with influences on those conditions exerted by the resources available for employment; by money and credit; by international trade; and by social endeavour.

Its motto is:—*The many in the one, the one in the many.* Many tendencies have gone to the making of each industry and each economic institution: therefore a thorough realistic study of any part of the economic field, calls for some reference to the interaction of many diverse tendencies, and gives occasion for some care in analysis. And, conversely, almost every important tendency is so far modified by the conditions under which it operates, that an exhaustive study of it may need to range over many fields of work. This motto supplements the motto of my *Principles* which is:—*Natura non facit saltum: i.e.* economic evolution is gradual and continuous on each of its numberless routes.

My aim has been to present as accurate a picture as I can of a part of the field of economics, and not to advocate any particular conclusions. A politician is compelled to seek his allies among those who desire the same ends as his; and therefore political influences on economic studies are not always wholesome. But a student's natural allies are those, whose aims and methods of work are akin to his own. It is of no concern to him whether a particular argument makes for or against his own ultimate conclusion: in either case he is equally grateful for any solid new suggestion that is contained in it; and equally repelled by any that seems to be based on inadequate data, or to reason

inconsequently on those data. My own experience has been, for instance, that, the more I knew of the work of Sir W. J. Ashley and the late Professor Schmoller, the warmer became my regard for them; in spite of the opposition between the main drifts of their work and of my own. Similarly, looking back on the years, in which I was much occupied in arguing that the net advantages of bimetallism are less than those of monometallism, I found that the person from whom I had learnt most on the matter, and whom I should have most welcomed as a colleague in that connection, was a leading bimetallist, Sir David Barbour.

The volume has no claim whatever to be a contribution to economic history: but an endeavour has been made to turn a few hints derived from the past to account in explaining the present: these will be found chiefly in Chapters III to VIII of the first Book, and in Appendices B to G. The table of Contents, which brings together the Section headings, indicates the general drift of the volume; and may incidentally suggest to a reader what parts of it he may with advantage shun. Analytical subtleties have been avoided as far as possible. But broad reasonings, essential for the argument, have been set out briefly; even when they have been more fully studied in my *Principles*.

For many years after the publication in 1890 of the first volume of my proposed complete *Principles of Economics*, I continued to work at its second volume: part of the type for that was set up in 1904 and is now used at last—I am told that this long waiting of type for its ultimate appearance is unique. Shortly afterwards I decided to bring out separately a more or less independent volume, devoted to Industry and Trade. Later on two volumes appeared to be necessary for the purpose: and at last it seemed best to round off the present volume in such manner that it would be an independent unit.

I may perhaps be forgiven for adding that my progress has been delayed, not only by weak health and constitutional unfitness for rapid work; but also by heavy professional duties till 1908; by preparing evidence and memoranda for various Royal Commissions on currency and other matters: and by

service on the Royal Commission on Labour, 1891—5; during which I received from working men and other witnesses, and from members of the Commission, the most valuable education of my life.

Nearly half a century has passed since I set myself to obtain some insight into industrial problems by obtaining leave to visit one or more representative works in each chief industry. I tried to get such a knowledge of mechanical technique (chemical technique was beyond my range) as would enable me to understand the resources and the mode of operation of all elementary plant in general use: I sought also to study the relations between technique and the conditions of employment for men and for women.

In pursuit of the latter aim I made it a practice to ask what pay was being earned by each class of operatives, whom I passed. Afterwards I asked to be allowed to guess in every case. If my guess was right within a shilling or two a week, I passed on. If not, I asked for explanation; and I almost always found that the reason lay in a cause, sometimes technical, sometimes relating to special conditions of the workers in question, which I did not know. The result was a conviction that inequalities of pay were less arbitrary than was often asserted, and were more directly under the influence of broad "natural" causes.

But I believed that the causes of these causes were not wholly beyond human control; and that they might probably be so modified as to bring about a nearer approach to equality of conditions, and a better use of the products of human effort for the benefit of humanity. I developed a tendency to socialism; which was fortified later on by Mill's essays in the *Fortnightly Review* in 1879. Thus for more than a decade, I remained under the conviction that the suggestions, which are associated with the word "socialism," were the most important subject of study, if not in the world, yet at all events for me. But the writings of socialists generally repelled me, almost as much as they attracted me; because they seemed far out of touch with realities: and, partly for that reason, I decided to say little on the matter, till I had thought much longer.

Now, when old age indicates that my time for thought and

speech is nearly ended, I see on all sides marvellous developments of working-class faculty: and, partly in consequence, a broader and firmer foundation for socialistic schemes than existed when Mill wrote. But no socialistic scheme, yet advanced, seems to make adequate provision for the maintenance of high enterprise, and individual strength of character; nor to promise a sufficiently rapid increase in the business plant and other material implements of production, to enable the real incomes of the manual labour classes to continue to increase as fast as they have done in the recent past, even if the total income of the country be shared equally by all. The average level of human nature in the western world has risen rapidly during the last fifty years. But it has seemed to me that those have made most real progress towards the distant goal of ideally perfect social organization, who have concentrated their energies on some particular difficulties in the way, and not spent strength on endeavouring to rush past them.

Accordingly the present volume is in the main occupied with the influences which still make for sectional and class selfishness: with the limited tendencies of self-interest to direct each individual's action on those lines, in which it will be most beneficial to others; and with the still surviving tendencies of associated action by capitalists and other business men, as well as by employecs, to regulate output, and action generally, by a desire for sectional rather than national advantage. The hopes and the fears of humanity in these matters underlie a great part of Book III, to which Books I and II are introductory: but of course the desire of the mere student for knowledge for its own sake, and without special reference to any purpose to which it can be applied, may be detected throughout.

Some matters considered in the final chapter of the volume have been affected by events and discussions, so recent that adequate place for their study could not be carved out of the text: and consequently much of Appendix P, and especially its last two sections, may be regarded as properly belonging to that chapter, to which indeed the Appendix is attached.

A little must be said about the use of terms. I have followed the practice, that prevails on the other side of the Atlantic,

of shortening "United States of America" to "America," where no confusion could be caused thereby: there is no adjective corresponding to "United States." "British" trade is commonly taken to mean that of the United Kingdom; while the substantive "Great Britain" refers only to a part of the Kingdom. I have ventured to use "Britain" as the substantive corresponding to "British" in its broader use.

Of this volume as of my *Principles*, but even more than of that, I may say that my wife has aided and advised me at every stage; and that everywhere much of whatever is good is owing to her suggestions, her care and her judgment: the index is entirely her work. Mr A. W. Flux also helped me greatly in regard to a considerable part of an early draft. Dr Clapham has kindly safeguarded my ventures on historical ground in Book I and the early Appendices; and my nephew, Mr C. W. Guillebaud, was reading my proofs, when the war called him to more important work at Whitehall.

BALLIOL CROFT,
CAMBRIDGE.

16 June, 1919.

P.S. A demand for a second issue of this volume affords opportunity for the restoration of the present pp. 657-672 to their proper place in the text: thus repairing the error, just noted, of under-estimating the space that would be required for the final chapters, which had caused those pages to be relegated to Appendix P (841-857). In consequence the numbering of the former pages 657-840 has been increased by sixteen. In addition a few small corrections have been made, chiefly on the suggestion of friends. I have been under no temptation to controversy, the sterile consumer of time and energy.

14 November, 1919.

P.P.S. The third issue (1920), and the present issue, differ from the second only in a few small details, chiefly verbal corrections. But meanwhile a study of Money; Business Credit; International Trade; and Fluctuations of Industry, Trade and Credit, has been published under the title *Money, Trade and Commerce*.

March, 1923.

CONTENTS

BOOK I

*SOME ORIGINS OF PRESENT PROBLEMS OF INDUSTRY AND TRADE

✓ Chapter I. Introductory observations. 1. The present urgency of the allied problems of industry and trade. 2. Economic conditions are mostly the result of slow and gradual development; and, partly for that reason, they commonly show the One in the Many, the Many in the One. It is necessary to look backwards a little, in order the better to look forwards. 3. The scheme of the present work as a whole. 4. Some details as to the arrangement of Book I. Causes of the large use of appendices and foot-notes. pp. 1--12

✓ Chapter II. Some general relations between industry and trade. 1. The trade of a place is likely to be increased by an advance of its stronger industries, but to be lessened by an advance of its weaker industries. 2. The direct gain that a town, a province, or a country derives from its external trade is the excess of the real value to it of its imports over that of the things, which it could have produced for itself by the labour and capital needed for producing its exports and working the trade. 3. Countries, whose advantages are distributed in unequal proportions between different industries, may generally carry on a trade profitable to both, even though one of them is absolutely the stronger all round. 4. A small country often has a relatively large foreign trade: for she can seldom supply nearly all her own wants as regards raw materials and other things; and her frontier is generally long relatively to her population and industry. But some causes tend in the opposite direction. 5. An increase in the distance which goods can be carried at a given cost, is likely to increase the trade in those goods in a greater ratio. Spheres of influence of different centres of trade. 6. Some consequences of the fact that the costs of traffic over long distances have fallen more than those over short distances; and that both have fallen unevenly. pp. 13--31

Chapter III. Foundations of England's industrial leadership. Her drift towards massive production. 1. Introductory. England's fore-runners in the industrial leadership of Western Europe. The spirit of economic nationality. 2. The qualities, which gave leadership to Englishmen in industry and trade in the nineteenth century, had their roots in early times. 3. The progress of England's internal and external trade during the Mercantile Age. 4. England's Mercantile policy was adapted to conditions

which were passing away, as the increasing mobility of industry promoted the concentration of textile industries in the neighbourhood of water power. 5. The new structure of the textile industries, which was set on foot in the latter half of the eighteenth century, indicates the gradual transition from the methods of the Mercantile Age to those of the nineteenth century. 6. The financial structure of English agriculture and its influence on progress. 7. The merging of England in Britain. . . . pp. 32—54

Chapter IV. Britain's industrial leadership: its long freedom from challenge. 1. Characteristics of modern manufacturing processes. 2. The massive results at which English inventions were aimed, called for simplicity in method and machinery; but that could seldom be reached without working patiently through complexity. Nearly all of them were associated with uses of coal and iron in making and driving the new appliances. 3. The long war retarded Britain's economic progress: but it threw other European countries back, and so strengthened her leadership. 4. In the second quarter of the nineteenth century the growth of railways helped to consolidate England's industries, and to expand her trade. 5. The growth of factories made prominent the evils inherent in crude capitalistic control, but was not largely responsible for them. 6. Influences of war and fiscal policy on England's industry and trade in the first half of the nineteenth century. pp. 55—85

Chapter V. Britain's industrial leadership under strong challenge. 1. A rare concilience of favourable influences promoted the expansion of Britain's industry and trade after she had thrown her markets open to the world. 2. After 1873 various signs of weakness were perceived; and later on some exaggerated alarms arose. But the national character is again showing itself in a resolute facing of difficulties. 3. The needs of Britain's industries gave additional momentum to a movement, that had long been on the way, for a reform of her educational system. 4. National funds are rightly given liberally to the advancement of knowledge for its own sake. Research for the attainment of particular ends is receiving some support from open associations of producers or traders, specially interested in their attainment. 5. Britain's industrial leadership is in process of being fulfilled and merged in that of the British Federation of Nations; the younger members of which are learning much from the present leadership of her first great Colony. . . . pp. 86—106

Chapter VI. The industrial leadership of France. Individuality and refinement in production. 1. The physical features of France have not favoured industrial concentration. 2. The political conditions of the seventeenth and eighteenth centuries suppressed the middle class; so that French industry was mainly given to cheap local products, on the one hand; and, on the other, to fine goods, embodying some artistic feeling and individual judgment. 3. The Revolution removed many obstacles to massive production. But the equal division of property made for industrial quietism; and in spite of the exceptional brilliancy of her engineers, France owes relatively little to the aid of mechanical power in manufacture. 4. Individuality in production contends under ever increasing difficulties against the forces of massive organization. Illustration from industries connected with fashion. pp. 107—120

Chapter VII. The industrial leadership of Germany: science in the service of industry. 1. The economic unity of Germany was achieved tardily, and in spite of many hindrances; but the movement was working under the surface for some time before it succeeded with apparent suddenness. 2. The facilities for traffic, begun by the Zollverein, were developed by railways, and have helped to build up much the largest industrial district in Europe. 3. Germany's zeal for solid education laid the foundation of her industrial progress. 4. Germany's leadership is mainly in industries, in which academic training and laboratory work can be turned to good account; and these are growing in relative importance. 5. Germany's industry and trade have some advantages which attach to youth; their strength and its limitations. . . . pp. 121—139

Chapter VIII. The industrial leadership of the United States: multi-form standardization. 1. Introductory. 2. The United States has remained young very long, partly because the geographical distribution of her resources has been such as to tempt men of strong character to move to new scenes, in which their enterprise has been further stimulated. 3. The various races of which the population is composed are homogeneous in matters of consumption; but they are diverse and mutually supplementary in industrial aptitudes. The homogeneity of demand creates an unrivalled market for standardized products: while the diversity of aptitude leads some to invent, and others contentedly to use semi-automatic machinery for making them. 4. The drift of America's industries towards massive multi-form standardization is further associated, both as cause and as effect, with their widespread geographical distribution, and also with the special features of her great railway service. 5. America's movable capital has grown very fast in recent years. Its ownership is widely distributed; but natural selection of singular efficiency has brought to the front a relatively small number of men with high business genius, and has given them control of a considerable part of her capital. 6. Some slight speculations as to future homes of industrial leadership. . . . pp. 140—162

Chapter IX. Transition to present problems of industry and trade. 1. The foundations of modern business in general confidence and credit. 2. A preliminary review of changes, which sometimes render a very large manufacturing or mining business in a measure independent of other industries in its neighbourhood. A note on the meaning of the term "productive." 3. General causes which have given to the leaders of productive industry much of the prominence and responsibility, which formerly belonged almost exclusively to great merchants. 4. Some observations on the assumption that social and economic tendencies, which are general and seem natural, are to be accepted as inevitable and beneficial. . . . pp. 163—177

BOOK II

DOMINANT TENDENCIES OF BUSINESS ORGANIZATION

Chapter I. The adjustment of production to demand in an open market.

1. Some introductory observations. 2. Ambiguities of the terms Market, and Cost of production. 3. Increased supply, demand being constant, lowers price both immediately and ultimately; though in various degrees for different things. Increased demand for a manufactured product generally sets up forces tending to lower cost, and therefore price, except when increased supplies of raw material can be obtained only at greater cost: but its immediate effect is always to raise price. 4. The cost of production which controls value relates to whole processes of production, rather than to any particular parcel of products. 5. The distribution of the general costs of a business among the various products, to which its resources are devoted: whether they are "joint" in the sense of being practically inseparable, or are produced "in common" for any other reason. 6. General conclusions as to limitations of the tendency towards such an adjustment of supply to demand, as would cause market price to cover expenses of production with normal profits.

pp. 178—196

Chapter II. Debts of industrial technique to systematic record and to standardization.

1. In early times the cumulative progress of industrial technique was in the main dependent on the informal records of customary usage: and this primitive method was until quite recently the chief resource of agriculture in sparsely peopled districts. 2. Various uses of the term Standard. Influences on technique exerted by clear and exact registration of the results of progressive experiments, such that each can be used as a stepping-stone to later endeavour. 3. Distribution of the studies, that make for progress, among men of various kinds and degrees of ability. 4. Influences on industrial technique exerted by the cumulative power of carefully made machines to create others, that are capable of work even more exactly standardized than their own. 5. The good and evil of machines that supplant fine skilled handiwork. . . . pp. 197—213

✓ **Chapter III. Some technical influences on the size of the representative business unit.** 1. Some introductory observations. Different methods of the expansion of the business unit. 2. Many causes make for the expansion of the business unit in the steel industry, especially in its heavy branches. 3. Tendencies of Particular standardization to become General. 4. A partial specialization of particular establishments in certain branches of the steel industry has long been in progress, partly under the influence of mutual understandings: and it has received a great impetus from the experiences of the industry under State control during the world-war. 5. Recent developments of the means of communication have facilitated the escape of a large business in a heavy industry from the constraint imposed by lack of space for expansion. 6. Illustrations, drawn from textile and boot industries, of diverse influences which partial standardization and specialization exert on the size of the business unit. . . . pp. 214—234

✓ Chapter IV. Further technical influences on the size of the business unit. 1. The expansion of the business unit in industries which handle continuous streams of homogeneous materials is being promoted by new economies appertaining to uniform and continuous process. 2. The handling of large masses of homogeneous material is often associated with the utilization of by-products, which further strengthens the tendencies to increase in the size of the business unit. 3. The increased dependence of those who pioneer progress in broad fields of industrial technique, on the aid of large capital. 4. Opportunities of a strong man with moderate means, who concentrates his energies on a speciality. pp. 235—249

Chapter V. Constructive speculation. Organized produce markets. 1. Introductory observations. 2. Modern organization tends to distribute the risks inherent in making and marketing, that they fall increasingly on the shoulders best fitted to bear them. 3. Characteristics of organized markets. 4. The services rendered by constructive speculation on a Wheat Exchange, illustrated by its efficacy in lightening the burden of risks borne by grain merchants and millers. 5. Dealings in organized markets are liable to abuse by unscrupulous men, aided as they often are by the folly of ill-informed speculators; but the power of selling the future command of a thing, not yet in possession, has important uses. 6. Some marketing risks relating to "ordinary" products can be transferred by forward contracts; but the majority can be delegated only as incidents of the delegation of corresponding functions. pp. 250—263

Chapter VI. Some broad problems of general marketing. 1. The costs and risks of marketing attach to whole processes rather than to particular transactions; many of them are common to a great part, and some even to the whole, of the affairs of a business. 2. The organization of trade is in the long run as vital to consumers as to producers and traders; but the ever increasing energy, with which sellers push their goods on the notice of buyers, is an inevitable result of modern developments. 3. The distribution of the general costs of marketing, and especially those connected with the holding of stocks for sale. 4. Functions of middlemen as links between producer and consumer. 5. Costs of marketing may be increased by difficulties of meeting demands for a constant supply of goods of uniform quality, and for supplies varying greatly from one season to another. 6. Heavy industries seek access to their materials. Light industries, and especially the highest and the lowest of them, seek large cities and their environment. Causes of the enduring hold which an alert centre of industry, handling light products, keeps on its markets. pp. 266—288

Chapter VII. Problems of general marketing continued: massive retail trade. 1. Massive retail trade is commonly associated with eager forms of competition. But some of its methods were proposed by workmen's co-operative societies, in which the spirit of brotherhood strengthened the policy of economy. 2. Some remarks on the strength and the limitations of co-operative trading. 3. Other developments of massive retail trading. 4. Brands Magazines, and Department-stores: Multiple-shop Companies, and Chain-stores. 4. Influences on the methods of marketing of goods, "branded"

with a mark which conveys a guarantee of quality. 5. The great ability and energy, which have been devoted in America to massive retail trade, tend to lower prices; but they are still rather high. 6. Constructive uses of "advertisement" in that original broad use of the term, in which it includes all measures designed to draw the attention of people to opportunities for buying or selling, of which they may be willing to avail themselves. 7. Advertisements, which are mainly combative, generally involve social waste. . . . pp. 289—307

Chapter VIII. Business organization: the growth and influence of joint stock companies. 1. Some of the modern problems of administration on a large scale were anticipated long ago by private and corporate owners of great estates: though they did not often need to balance their incomes against their outgoings closely. The fiduciary element in corporate administration. 2. The growth of the legal freedom and of the inclination to develop businesses in joint stock: their paramount influence on economic structure. 3. So wide are the varieties of the arrangements between ownership and control of capital, which are now included under the common name of joint stock association, that almost any class of business can be properly conducted by some one or more of them. 4. The obscurity of the affairs of many small companies: the exceptional case of manufacturing companies owned largely by working-men. 5. Temptations of joint stock companies to excessive enlargement of scope. 6. The mechanical methods of administration, which are inevitable in a joint stock company, are often mitigated by the professional emulation and the *esprit de corps* of its officials. Good and evil of the progressive supersession of private businesses by joint stock companies. . . . pp. 308—328

Chapter IX. Business organization: its financial basis. 1. Functions of the promoter in relation to joint stock companies. 2. Some difficulties connected with the valuation of a company, and especially an amalgamation of several companies. Opportunities for, and temptations to, excessive valuation. 3. The part played by banks and other financial agencies in the adaptation of industry and trade to the enlarged financial requirements of the modern age. British banks. 4. Relations of banks to industry and trade in Germany and America. 5. Suggestions that Britain's industry and trade might derive material assistance from powerful and prominent financial institutions, which would supplement, and cooperate with, her great banks. . . . pp. 329—349

Chapter X. Business organization: its tasks, and requirements of faculty. 1. The value of a machine to a business can be calculated on the basis of its efficiency for its immediate work. But the value of an employee must be estimated, partly by instinct, with a view to the probable development of his capacities: and the difficulty of this task is increased by the conditions of modern business. 2. Faculties needed by the head of a large business; and by its chief officials. 3. The education of business faculty. 4. In periods of economic reconstruction there is an urgent demand for creative faculty; and those who come to the front, seldom owe much to any formal preparation for their work. 5. The increasing scope for trained

faculty and methodical organization of detail in industry and trade. 6. The organizing faculty of a masterful mind can sometimes make itself felt over the whole of a large business, even when owned in joint stock, largely through its influence on well-chosen chiefs of departments. pp. 350—364

Chapter XI. Business organization: applications of scientific method.

1. Movements towards the general application of scientific methods in business administration were pioneered by studies of cost-accounts. 2. A general view of the aims and methods of the movement that goes by the title, "Scientific Management." 3. The chief responsibility for the affairs of a great business in Scientific Management is intrusted to a Planning Department: and this, together with the higher control under which it works, develops the organization of the business according to "function" rather than "line." 4. In Scientific Management it is arranged that, as far as possible, each frequently recurring manual operation shall be made the subject of elemental time studies, conducted under favourable conditions by highly trained observers, who seek guidance from the traditional practice of skilled operatives. . . . pp. 365—380

Chapter XII. Business organization: applications of scientific method, continued.

1. The principles of Scientific Management lead up to a careful analysis, partly on lines which have long been followed in some British and other industries, of the notion implied in the term "a standard rate of wages." A claim to be working towards "absolute" standards. 2. Suggestions that very high efficiency of plant can be obtained without overstraining the operative in charge of it, by supplying him with high standard conditions of work, and causing his remuneration for each job to increase with every increase in the speed of its performance. 3. General relations of Scientific Management to the remuneration of manual labour and to the democratic control of industry. 4. Though the wage systems of Scientific Management give small scope for collective action by employees, its open methods of planning may do a little towards fitting manual workers for the responsibilities of democratic control. . . . pp. 381—394

BOOK III

MONOPOLISTIC TENDENCIES: THEIR RELATIONS TO PUBLIC WELL-BEING

Chapter I. Various influences of monopoly on prices. 1. Introductory.

2. The monopolistic element in the policy of cartels, and other regulative associations of independent producers or traders, is a chief instance of the interpermeation of competitive and monopolistic policies. 3. Price policies of monopolies, absolute and conditional, in regard to immediate net revenue and to prospects of future development. 4. Benefits which the public may derive from a far-seeing use of monopolistic power under certain conditions.

pp. 395—409

Chapter II. Various influences of monopoly on prices, continued.

1. Partial shiftings of burdens imposed on monopolies. 2. Influences which various degrees of monopolistic advantage may exert on the distribution of the burden of the general costs of a business among the several groups of its products. 3. Unequal or "discriminating" charges for the same goods or services, delivered under dissimilar conditions, may be a part of a reasonable, and even of a constructive policy: but the line of demarcation between these and others, which aim at the destruction of inconvenient rivals, is often hard to be drawn. 4. The relations between two monopolies, each of which is dependent on the services of the other. Buyers' monopolies. Local and other partial monopolies in multiple ownership. . . . pp. 410—422

Chapter III. Competition and monopoly in transport. 1. The inter-

permeation of competition and monopoly, illustrated by the simple case of traffic at a small ferry. 2. On the open high road some kinds of traffic show traces of monopoly, and of the arbitrary distribution of general costs: but competition keeps the charges for the main bulk of heavy traffic close to its actual costs. 3. On the ocean as on the land, charges for the carriage of heavy goods in bulk are governed mainly by the costs of the services rendered; while the charges for quick transport at fixed times are in great measure adjusted to demands for the services rendered. 4. The growing concentration of a large part of the oceanic passenger and light goods traffic in the hands of a relatively small number of powerful companies; groups of which often act together in "Conference." 5. The uses of Deferred Rebates as a means of insuring the loyalty of a shipper to a steamship Company or Conference; and their abuses. 6. Some general inferences. The functions of an authoritative Commission of inquiry in compelling publicity; and in promoting measures for the interests of the general public on matters, which cannot be fully understood without expert knowledge. . . . pp. 423—444

Chapter IV. Competition and monopoly in transport, continued.

1. Introductory. 2. The configuration of Britain and the habits of her people are responsible for the fact that most of her goods traffic consists of small consignments, carried short distances; and therefore at high average costs per "ton-mile." 3. Britain's railway map shows the fortuitous results of competition; and her passenger service is very costly: but the economy of time resulting from frequent rapid services on parallel lines is perhaps worth more than its cost. 4. In regard to short periods most of the costs of a railway are "fixed"; but large problems of railway policy relate chiefly to long periods, in regard to which much fewer costs are fixed. 5. The direct costs of particular passenger services. 6. The direct costs of particular goods-traffic services. . . . pp. 445—466

Chapter V. Competition and monopoly in transport, continued.

1. The distribution of the general costs of a railway over its various services. 2. Discriminating concessions to particular industries and trades, in regard to charges and services, are mostly local; and they are often much influenced by competition between industrial and trading districts, served by different railways. 3. The good and evil of the concession of specially favourable

railway rates to particular districts, whose geographical positions are somewhat unfavourable. 4. Improved railway administration has narrowed the field in which the authoritative regulation of particular rates is required. Estimates of the costs of particular services are relegated to secondary, but useful work. pp. 467—482

Chapter VI. Competition and monopoly in transport, continued.

1. Changing attitudes of the British people and Government towards the amalgamation of railways; the line of division between continuous and competitive railways being meanwhile almost blurred out. 2. Many economies, which are commonly regarded as appertaining only to railway fusions, can be obtained by particular agreements for cooperation; or for pooling certain classes of traffic, or of wagons. 3. Far-reaching intervention by Government in railway affairs is at once relatively easy and urgent. State ownership of railways. 4. Causes and consequences of the present weakness of British canals. Heavy goods traffic is controlled by railways and waterways in a great part of North-western Europe; but by railways alone in Britain. 5. The relations of Britain's railways to heavy goods traffic may possibly be considerably modified by her exceptional facilities for the cooperation of road motors with her canals, and for electric haulage on her canals. pp. 483—506

Chapter VII. Trusts and cartels: American experience. 1. A review

of some general causes of the recent rapid increase of giant businesses, independently of any monopolistic purposes. The poverty of British statistics; the wealth of American. 2. Associations and agreements of various sorts prepared the way for the rise of trusts in America. 3. The basis of a firm, but wisely limited, control of monopolistic tendencies in American business is provided by systematic official studies. The experience thus gained gives valuable guidance as to some urgent problems of British industrial policy. 4. Actions, which are harmless on a small scale, may become injurious when practised on a large scale; especially if their purpose is to obstruct the highway of business. 5. Relations in which the prices charged by far-seeing trusts, when not engaged in campaigns against rivals, stand to the probable costs of "independents". pp. 507—526

Chapter VIII. Trusts and cartels: American experience continued.

1. The United States Steel Corporation is a unique aggregation of many giant businesses; but it leads, rather than controls, the steel industry. 2. The power of exceptional constructive ability, combined with astute destructive strategy, is illustrated by the history of the Standard Oil Company: its financial strength has gradually overshadowed a considerable part of American business. 3. Monopolistic control in the tobacco industry effects great economies in marketing: the huge profits of the Tobacco trust tempted it, and enabled it, to use strong measures for the suppression of interlopers. 4. Insistence on exclusive dealing, and other tying contracts, are generally harmless on a small scale: but, when used as aids towards monopoly, they may be mischievous. 5. Difficulties in the way of forecasting the future of trusts; especially in regard to their influence on the stability of industry and trade. 6. A great part of the railways and the chief manufacturing

and mining businesses of America are largely under the control, for good and evil, of a comparatively small number of powerful financiers.

pp. 527—543

Chapter IX. Trusts and cartels: German experience. 1. Germany's leadership in the evolution of cartels. 2. Cartels, whose scope is limited to the regulation of prices in regard to standardized products. 3. The Westphalian coal cartel, or Syndicate, affords the leading instance of an organized control of the output and marketing, as well as of the prices, of the products of a great industry. Its policy has contributed to the growth of "mixed" coal and steel companies at the expense of "pure" coal mines and steel works. 4. Causes that specially favoured the advance of giant businesses in German steel industries: phases of their cartellization. 5. The Steelworks Union is a "general" cartel, designed to harmonize the interests of various stages of the steel industry, as to production and marketing, and to the bounty conferred by the Protective tariff. . . pp. 544—565

Chapter X. Trusts and cartels: German experience continued. 1. Monopolistic tendencies of some German giant businesses in association with cartels and banks. 2. The tendency of some of those industries, which embody the best results of German genius, to domination by a few giant businesses, with mutual understandings, while avoiding formal cartellization. 3. The increasing responsibilities of cartels to their several industries, and to labour. 4. Functions of the State in relation to cartels. pp. 566—576

Chapter XI. Aggregation, federation, and cooperation in Britain's industry and trade. 1. Introductory: a glance backwards. 2. The strong individuality, which created Britain's industrial leadership, is still her most important asset. But it needs increasingly to be supplemented by readiness to cooperate with others in large affairs; while the supersession of small businesses by large in many industries is inevitable. 3. Movement towards aggregation in the British coal industry. 4. Plasticity of structure throughout the steel industry. Conflicts and harmonies of interest among its several stages. 5. Illustrations drawn from the steel industry of the national interest in the standardization of products, the intensive specialization of businesses, and the maintenance of open markets. 6. A monopolistic tendency in a branch of a great industry, the highways of which are in general free to all comers. . . pp. 577—598

Chapter XII. Aggregation, federation, and cooperation in British industry and trade, continued. 1. Some British textile industries have developed efficient standardization and specialization almost automatically. 2. Constructive cooperation among kindred businesses, whether independent, or in single ownership and under central control. 3. Some minor functions of producers' associations. 4. Associations of producers for constructive work in marketing; especially in connection with export trade. 5. The strength of the semi-automatic organization of export trade by independent merchants: functions of banks in relation to the trade. . pp. 599—619

Chapter XIII. Aggregation, federation, and cooperation in British industry and trade, continued. 1. The regulation of prices by associations of producers. 2. When markets are perfectly open, the interests of the general

public are defended in great measure by the alert watching of producers in each stage of industry against undue raising of the prices of their plant or material: but this defence is impaired when the price in each stage is arranged by a combination of producers in it. 3. Cartel policies of exclusive dealings are often fortified by deferred rebates. 4. A combination in a British manufacturing industry, even when not protected by a tariff, may yet be able to raise prices artificially by the equivalent of double costs of transport between Britain and other countries. 5. The policy of dumping. The claim of combinations to stabilize home industry. . . . pp. 620—635

Chapter XIV. The decline of exclusive class advantages in industry.

1. The spread of education, and technical changes which lessen the strain of physical work, are mitigating many of the disadvantages under which the manual labour classes lie. 2. Real and apparent divergencies of interests among the manual labour classes; for some of which a remedy is sought in collective bargaining for particular tasks. 3. Some further observations on the movement, voiced by the Whitley Report, for enlarging the influence of employees over those affairs, connected with their employment, in which they are most nearly concerned. 4. The control of a great part of business organization may be diffused: but decisions as to the taking of risks generally, and of new departures in particular, should remain, for the present at least, in the hands of those who will bear the burden of the risks. 5. Britain can obtain her necessary supplies of food and material only by continued leadership in those industries, which make large use of the most expensive mechanical appliances: that is in those industries which have the greatest need of the bold, judicious, unfettered undertaking of grave risks under difficult and ever-changing conditions. 6. Some general conclusions. Sectional, national, and international interests. Anglo-Saxons have generally eschewed the more antisocial forms both of competition and combination. Collective control of industry would be unfavourable to the best selection of men for responsible work. 7. National Guilds. 8. Possibilities of the future. 9. Nature and limitations of the constructive work of a democratic Government in regard to industry.

pp. 636—672

Appendix A. A note on method in economic study. 1. The progress of science, while increasing the stock of knowledge, increases also the area of conscious ignorance. Relations between economic analysis and ethical aspirations. 2. Similarity amid diversity of the methods of physical and social sciences. The need for elasticity in the uses of economic terms.

pp. 673—680

Appendix B. Some early phases of industry and trade. 1. Beginnings of specialized industry and long distance trade. 2. Even small towns carried on a sort of international trade with other towns, and a sort of colonial trade with neighbouring country-folk. Town patriotism, and town selfishness. The City States. 3. The industries of shipbuilding and trade were so developed by Holland, as partially to anticipate much that is characteristic of modern capitalistic predominance, and industrial technique. Industry and trade led

- up to finance. 4. It is true that economic development passes generally through three stages, in the last of which manufacture predominates; but List's assumption that manufacture is necessarily superior to other industries seems to mistake accidentals for essentials. . . . pp. 681—699
- Appendix C. England's early industry and trade.** 1. Origins of the energies, which were ultimately turned to account in England's industry and trade. 2. The desuetude of mediæval institutions and habits of life and action; and the growth of a labouring population, detached from specific obligations and rights, prepared the way for conditions of which the present dominant relations between employer and employed are the result. 3. Further preparation for modern relations between capital and the various orders of the industrial population. The constructive work of early trading monopolies. 4. Work done in the household for the use of the household gave way to production, mainly in cottages and small workshops, of goods the ultimate marketing of which was organized by professional traders. . . . pp. 700—711
- Appendix D. The English mercantilists and Adam Smith.** 1. Mercantilism differed from policies of earlier times, not so much in general tendency, as in the ability and energy with which it was enforced and in the largeness of its scope. 2. The discovery of the New World altered the form rather than the substance of trade policy with regard to the precious metals. 3. The decline of the monopolistic trading companies. The misuse of industrial monopolies. 4. England's colonial policy in the eighteenth century. 5. Some broad conclusions as to English Mercantile legislation and administration. 6. Colbert's genius gave a great impetus to French industries. But his Mercantile policy, crystallized in the hands of weak successors, contributed to a reaction in favour of "Natural" freedom, which occupied the minds of the French people a little later. 7. Adam Smith frequently showed that the interests of individuals may lead them to action which is not the most conducive to the well-being of the community, themselves reckoned in. . . . But he held that Government intervention was likely to be exploited by intriguing traders. . . . pp. 719—748
- Appendix E. The British movement towards Free Trade.** 1. The policy of Protective duties was discredited in Britain by the mismanagement of the Corn Laws: Sliding Scales of duties, designed to keep prices steady at a high level, made them very unsteady. 2. The repeal of the Corn Laws could not produce its full effect at once. It did not cause a great fall in the price of wheat; but it did keep the price almost stationary in Britain, while rising in neighbouring countries. 3. Although economic science was much advanced by Adam Smith's successors, their views were generally less broad than his; and their doctrines were sometimes converted by weak or partisan adherents into absolute dogmas. 4. Overstatements of arguments in favour of Free Trade have retarded the general acceptance of that part of it, which may justly claim to be of universal validity. 5. It does not appear that any eminent economist maintained a position of hostility to the Factory Acts; though they were bitterly opposed by some writers who had a superficial knowledge of economics. . . . pp. 749—766

Appendix F. The Zollverein. 1. Though the first fruit of Germany's consciousness of her unity was a desire for commercial federation, yet particular interests ruled many of the devious steps by which the goal was ultimately reached. 2. The general drifts of the German tariff subsequent to the full establishment of the Zollverein. . . . pp. 767—772

Appendix G. Early industrial conditions and fiscal policies of the United States. 1. The course of internal and external trade was long governed mainly by difficulties of communication and by scarcity of capital. But steam traffic opened European markets for wheat, and the people moved to western prairies. 2. Protective tariffs in favour of American manufactures were originally advocated as an investment of national capital in national education, which would bring rich returns in the future. 3. Subsequently more stress was laid on instances of malign underselling by British manufacturers. Statistical evidence as to the influence of high tariffs on national prosperity is necessarily inconclusive. . . . pp. 773—784

Appendix H. Technical influences on aggregation in particular industries. 1. Influences of way-leaves: railways; petroleum wells; water and gas supply and postal industries. The mining industry. 2. Electricity in the service of man. 3. The expansion of the carrying capacity of ships, and of the business unit in the shipping industry. . . . pp. 785—792

Appendix I. Notes on the development of broad markets for grain and other crude products. 1. The catastrophic condition of food supply in early times and its gradual improvement. 2. Cotton Exchanges. Partially organized markets for wool and some other crude products. pp. 793—803

Appendix J. Some minor problems of marketing. 1. The costs of marketing perishable products, when demand is imperious and supply is uncertain, are always high. 2. Influences on the costs of marketing, exerted by varieties of individual requirements and tastes. Illustrations as to furniture and as to fashion goods. 3. Some variations in the additions made by the retailer to wholesale prices, which are due to causes other than variations in direct costs of marketing. 4. The standardization of raw food products for marketing purposes. 5. The hold which small shops retain on poor districts. 6. Marketing and industrial peculiarities of various capital cities. . . . pp. 804—818

Appendix K. On education, with special reference to a business career. 1. The development of faculties at school. 2. University training for the responsibilities of business. . . . pp. 819—823

Appendix L. Conditional monopolies in multiple ownership. 1. Problems relating to an industry, which would constitute a powerful monopoly if in a single ownership. Illustration from the incidences of taxes on agriculture in a densely peopled country. 2. Interests which owners of land, and of good business connections, have in the semi-monopolistic advantages, that a city may develop by large local expenditure, well administered. pp. 824—829

- Appendix M.** Notes on railways and their problems. 1. Early phases of English railway traffic and finance. Causes of the rise and decline of canals. 2. Curious contrasts in passenger traffic. 3. The development of American railway regional and blanket rates. 4. The importance of railway statistics, and their difficulties. 5. The small and indirect, but yet valuable, aid which a study of the capitalization of railways may afford in regard to the regulation of the general level of their charges. pp. 830—845
- Appendix N.** Some American industrial statistics. The recent increase in the size of the representative industrial establishment in America. pp. 846—849
- Appendix O.** Notes on employment in British and German steel industries. A comparison of the steel industries of Britain and Germany, with special reference to the plea that Germany's cartel and fiscal policies in association have benefited the people. . . . pp. 850—853
- Appendix P.** Cooperative and collective organization of industry methods proved and unproved. The great services to progress rendered by cooperation and copartnership; and their limitations. . . . pp. 854—856
- Index.** pp. 857—874