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BRITISH INDUSTRY

BRITISH INDUSTRY

Its changing Structure
in Peace and War

BY

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AND

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PREFACE

THIS book is largely as completed in September 1939, but an "Epilogue" has been added to indicate the main changes which have occurred since the outbreak of war. Thus, while it may be claimed that the book is up to date, the procedure adopted enables, it is hoped (since the war upsets the continuity of development—and indeed threatens to produce drastic economic and social changes), a clear picture to be drawn of the foundations from which our present industrial effort must be made.

The war necessitates to an ever-increasing extent the production of goods and services which do not contribute to economic welfare. The degree to which this can be done without depressing the standard of living to a dangerously low level, depends upon our industrial structure which is the essential determinant of our capacity to produce, to distribute, to import and to export. At present the structure is, basically, still that described in Chapters I. to X. The most significant changes have so far occurred in the apparatus of control and in the role played by the Government, though even here—as is shown in the "Epilogue"—many peace-time organisations have been adapted to, and embodied in, the mechanism of the war economy.

It is pleasant to acknowledge the assistance and the valuable suggestions of Mr. H. L. Beales, Mr. D. V. Glass (both of whom read part of the manuscript), and of Mr. A. Emanuel and Mr. W. J. Hopkinson who read the entire proofs. The responsibility for the views

expressed, of course, remains exclusively with the authors. We are also grateful to Mrs. Compton for preparing the Bibliography and Indexes.

It only remains to acknowledge the permission readily given by Messrs. Macmillan & Co. Ltd. to utilise the two tables from Mr. Colin Clark's *National Income and Outlay*.

M. C.
E. H. B.

LONDON,
April, 1940.

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BRITISH INDUSTRY

CHAPTER I

SOME INTRODUCTORY CONSIDERATIONS

THAT "disposition towards public affairs, which we conveniently sum up as Individualism and *laissez-faire*" [1] has been a short and strange interlude in the history of our country. The cumbersome restrictions of the seventeenth and eighteenth centuries had not been swept away before new restrictions had been imposed. For the first quarter of the nineteenth century free trade and laissez-faire opinion were slowly developing among men of affairs.[2] From 1820 until 1860, the time of "Cobden's" Commercial Treaty with France, there was a steady rise in the tide of individualistic thought and practice which reached its zenith about 1875. From then began the decline which has accelerated in the present century.

There was never a period of undiluted laissez-faire. Combination among employers and workers replaced the restrictions of earlier Statutes. Factory Acts, Railway Acts, Merchandise Marks Acts, health and and social legislation generally, restricted complete freedom.

In the early years of the nineteenth century, workers had appealed to the Government to protect their conditions of life under Elizabethan Statutes

which prescribed the conditions under which work should be carried on. The Government's reply had been to repeal the Statutes.[3] Parliament also repealed the eighteenth-century Combination Laws which ostensibly prevented combination among both employers and workers. Thus while the repeal of the Elizabethan Statutes freed manufacturers from any remaining restrictions on the conditions of employment —which in any event had long since ceased to be effective—the repeal of the Combination Laws permitted the banding together of employers or workers for their own protection or benefit in the sale of their goods or their work and paved the way for trade unionism.

From 1834–35 the factory system was being subjected to effective government regulation. Trade unions were being subjected to the discipline of the Courts and in 1847 the Ten Hour Bill restricting the hours of work for women and children was passed. While freedom to trade was being won in the direct interest of entrepreneurs social legislation was being passed in the interest of workers. This legislation included Truck Acts and Factory Acts and limited the power of employers over employed, and controlled working conditions. Freedom to trade was being balanced by Parliamentary concern for the workers.

This intermingling of new restrictions and new freedom does not obscure the fact that the dominant characteristic of the middle years of the nineteenth century was a belief in freedom, not confined solely to commercial freedom, and in the efficacy of unbridled private enterprise to secure the maximum material benefits for all. But there were those who doubted, even in the "good times" of the Victorian era, that there was a necessary harmony between private advantage—pursued unbridled—and public good. Labour had always been conscious of the disadvantages of

laissez-faire where bargaining was between two unequal parties, and struggled throughout the laissez-faire epoch to secure full rights of combination and the power to withdraw their labour as an organised body. Further, by the time Adam Smith's doctrines had been interpreted by Senior and exalted by Bastiat, an intellectual opposition had been aroused to the crudities of the laissez-faire theories; particularly to the popular exposition of those theories, and to their underlying assumptions.[4]

Thus the seeds of the reaction from laissez-faire are to be found well before the triumphant era of the Cobdens and the Brights. But their triumph, from 1850 for a quarter of a century thence, was in a period of spaciousness and buoyancy. It was the time of that not-so-admirable attitude so admirably described by Mr. Keynes: "To the philosophical doctrine that Government has no right to interfere, and the divine miracle that it has no need to interfere, there is added the scientific proof that its interference is inexpedient."[5]

The counter-blast to some of the most cherished free-trade doctrines came even before the repeal of the Corn Laws. Friedrich List, in his *National System of Political Economy* (1841) argued in favour of safeguarding (to use a modern word) "infant industries." This thesis found the ears of receptive continental politicians. In this country the younger Mill expressed doubts, in his *Principles* (1848), as to the general applicability of laissez-faire to all the internal economic conditions of the country. In later editions of his *Principles*,[6] and in other works, his doubts became more emphatic and definite, at any rate in regard to social legislation.

If the period of free trade was short for this country, it was briefer and narrower for others. In the United States tariffs were a factor in the Civil War. And after the war the victorious North pursued, what was for those

days, a high tariff policy. From then until 1890, industrialisation was at epic speed, and American tariffs were so effective and high that British exports to U.S.A. rarely exceeded the levels of the pre-civil war years. In 1890 the McKinley tariffs, the highest yet known, were introduced and trade with the U.S.A. was even more severely handicapped.

After the Franco-Prussian War the Germans followed the United States and changed a relatively liberal tariff policy to one of protection ; and List's " infant industry " argument was launched well on its way in use and abuse. [7]

But if the Germany of Bismarck was protectionist, it was also free from some doctrinaire notions about interference with business. While Bismarck passed no Factory Acts he did legislate for compulsory insurance for workers against sickness (1883), against accidents (1884), and old age pensions (1889). True, his Insurance Acts were not the result of altruism or of a social conscience ; this legislation was used as a " preservative of society." [8]

In Great Britain, by 1870, a strong tide of informed opinion had set against laissez-faire on social grounds. Numerous social evils had grown up with it or had grown out of it. In 1870 Cairnes, the first eminent economist to do so, made a frontal attack upon the presumption of its doctrinaire exponents that they had a scientific basis for their theories. He declared that the " maxim of laissez-faire has no scientific basis whatever, but is at best a mere handy rule of practice." This has been the attitude of the foremost economists ever since.

Free trade between countries suited the pockets of United Kingdom traders and manufacturers. But the benefits of a commercial treaty, as with France in 1860, must not be evaluated merely on that basis. Morley quotes Peel as saying what could equally have been said by either Cobden or Gladstone : " I should not estimate

the advantages of an extended commercial intercourse with France merely in respect of the amount of pecuniary gain ; but I value that intercourse on account of the effect it is calculated to produce in promoting the feelings of amity and goodwill between two great nations. I should regard that mutual intercourse in commercial affairs as giving additional security for the maintenance of peace." [9] A commercial treaty was a commendable alternative to war.

Out of this treaty, which gave France no concessions which were not equally applicable to other nations, has grown the famous most favoured nation clause which has been included in British commercial treaties.

The years that followed were, however, to see the beginnings of important changes in social legislation and the beginning of a series of attacks upon the free trade doctrine itself. In brief, even in this country, the following years were to see the laying of the foundations of a different industrial organisation, and a different social outlook based upon different needs and different ideals.

The years 1867–75 were decisive in important legislative changes affecting the internal industrial and social life of the country. It is true that as early as the 'forties Parliament had shown concern about the railways, and in 1842 required new lines to be submitted to inspection but, until 1871 (the Regulation of Railways Act), the inspectors had had to beg for information. The preceding Factory Acts, the numerous Railway Acts, the Poor Law legislation are mere indicators of the trend of legislation. In the eight years, 1867–75, trade unions secured recognition, factory legislation was extended, Acts were passed to protect miners and seamen, local authorities were given powers to abolish slums and to provide working-class dwellings. It was the period of the beginning of our present public health organisation. And the spate of legislation did

not cease ; wage regulation,[10] social insurance, pensions, workmen's compensation and further railway legislation followed.

An indication of another development was the foundation in 1881 of the Fair Trade League—to be shattered by the arguments of Joseph Chamberlain, President of the Board of Trade. But the protectionist movement recovered because " its strength lay less in its economics, though they were not negligible, than in its sense of a changing world and in its nationalism." [11]

In industry, after the passing of legislation between 1855 and 1862[12] permitting limited liability, the transfer of businesses from private individuals to public companies proceeded rapidly [13] together with amalgamations in the 'nineties.

In 1888 the Salt Union claimed control over 91 per cent. of the salt output of the United Kingdom. But the Union is not credited with the necessary efficiency to have been a danger to the consumer, and the incompetence of its controllers brought discredit to industrial combination for a time. In the 'eighties, the first important instance of a true holding company came into being—the Nobel Dynamite Trust. In its international aspect it was also a forerunner of Unilevers, Imperial Chemical Industries and I. G. Farbenindustrie.

About the time of these industrial developments, Marshall was directing economists' attention to examples of disharmony between private and social interests. He argued that " increased prosperity has made us rich and strong enough to impose new restraints on enterprise ; some temporary material loss being submitted to for the sake of higher and greater ultimate gain." [14]

In 1903, Marshall, in his " Memorandum on the Fiscal Policy of International Trade,[15] showed that free trade suited this country in the particular conditions

then existing, but that the " universal truths " on which free trade doctrines were based were, in fact, applied to transitional conditions.

But in the meantime the State had taken steps which led away from free trade. After 1859 some of the colonies obtained fiscal independence. The grant of responsible government carried with it the right to regulate trade, and the colonies were to utilise those powers to erect tariffs, even against Great Britain.[16] In 1887 the Merchandise Marks Act was passed which required goods to be labelled with the country of origin.

In 1902 the State took a step which, except for the purchase of the Suez Canal Shares, was unprecedented. (It is an action familiar to us to-day.) The early years of the century was a period of " near-war." The White Star Line was to be transferred to American control, and it was known that a similar offer had been made to the Cunard Line. The Government determined to stop the sale and offered a loan to the Cunard Company of £2,600,000 for the building of two fast mail ships. The Company was also offered a subsidy of £150,000 per annum in addition to the ordinary mail subsidies. In return, among other conditions, the whole of the Cunard fleet was to be placed at the disposal of the Government in time of war. This was not quite a solitary act of government " interference " before the war of 1914–18. It was followed, through an " audacious Admiralty decision," by the Government becoming a shareholder in the Anglo-Persian Oil Company. Moreover, when Lloyd George was at the Board of Trade he introduced perceptible doses of economic nationalism. The Act of 1906, dealing with shipping, although in the main very simple and reasonable, contained some protective legislation. The Patents Act of 1907 raised " doubts and fears among the doctrinaires of the two tariff camps." Great

Britain was again witnessing a full-blooded tariff controversy.

In the early years of the present century there was no general move to industrial combination as occurred in the late 'nineties. But amalgamations did not cease. In "heavy" industry and particularly among armament firms the process of joint-stock integration went on both during and after the South African War. John Brown & Company, the shipbuilders, took over part of Harland & Wolff's in 1907. They also had iron-ore interests in Spain, and they added a couple of blast furnaces in North Lincolnshire to their business. In 1911 another attempt was made to apply the principles of joint-stock amalgamation and price control to the cement industry, where it had already been unsuccessfully tried. Lever, in his attempts to form a price-fixing cartel for soap, receive a temporary setback, but his business was alrea an international concern.

Thus the general lines of the post 1914–18 economic developments were already laid down. The State was taking an interest in economics from the viewpoints of social needs and power. Large business units were being built up by amalgamation,[17] purchase and integration, and, despite the development towards economic nationalism, some businesses were becoming international.

Before 1914 the economic nationalism of Great Britain took a very mild form, but with the war it became accentuated. The slogan, "business as usual," lasted a remarkably long time: some critics said too long. However, in 1915, the McKenna Duties of 33⅓ per cent. *ad valorem* were imposed on watches, clocks and motor cars with the stated object of economising shipping space. And the obligations which the Government had to shoulder and the controls which were developed[18] to produce the material and the attitude of mind for the successful pursuit of the war,

naturally accelerated the movement towards Government interference in business, and the cartilisation of industry.

After the war, statesmen attempted to slough war-time obligations and controls and to steer the economic system into pre-war channels. The attempt was marked by failure almost from the outset. The Cunliffe Committee in 1919 recommended a return to the Gold Standard as soon as possible. It was not until 1925, however, that we suffered directly from the " Economic Consequences of Mr. Churchill." [19] In 1921, the Safeguarding of Industries Act gave protection to a number of " key industries." Manufacturers suffering from dumping [20] could apply to the Board of Trade for special protection. In 1925 thinly veiled protective duties were placed upon silk and hops and sugar-beet was subsidized.

The present epoch is marked by restrictions upon the free development of industry and trade imposed both by Government and by associations of employers and employees. Nevertheless, the laissez-faire ancestry is apparent both in the structure of industry and in the opinions of entrepreneurs. There is no unqualified approval of governmental or self-imposed regulations, and there is still no unqualified condemnation of laissez-faire. The business man does not condemn competition *per se* but when it is " unfair " and imports when they are " dumped " or " subsidised." He continues to pay lip-service to some of the laissez-faire opinions of the nineteenth century.

Italy and Germany, among the first-class powers, have deliberately sought to achieve the maximum degree of economic independence of other countries. This attempt at " autarkie " is in direct conflict with the principle of international specialisation. [21] In the interests of the struggle for power and the profits of native producers. It substitutes, costly local manufacture for

the import of internationally traded commodities which, if cheaper, leave a country dependent upon foreign sources of supply. The self-sufficiency of countries obtaining under mercantilism and the domestic system of industry before the Industrial Revolution has become, paradoxically, the objective of the greater part of the industrialised West under the impetus of fear and the disorders arising from power politics.

In this country the movement towards economic nationalism took a sharp upward turn after 1930. In 1930 Mr. Keynes suggested a 10 per cent. revenue tariff as an alternative to abandoning the Gold Standard. In practice the Gold Standard was abandoned, and much higher tariffs and quantitative regulation of imports were introduced. It was the end of free trade and laissez-faire. Even so, British economic nationalism was mild compared with Italian or German. There was no attempt to secure absolute self-sufficiency even in particular commodities. The trend was rather to secure more home-produced supplies of certain goods, particularly agricultural commodities.

The present world economic position recalls to mind that era, between the Middle Ages and the era of laissez-faire, known as Mercantilist. Two points about that period assist to elucidate the present trend. Most interesting, perhaps, is the parallel between the attitude of mercantilists and many business men to-day. Mercantilists tended to think in terms of a static market. The decline in post-war international trade has given rise to a similar notion. Merchants and national groups feel they are struggling to obtain as large a share as possible of an inevitably declining world trade. The applied "remedies" may cause a worsening of the wasting disease, but individual manufacturers or merchants who receive assistance are only concerned with the effects on their own survival and not with the cost to the community as a whole. Their influence on

governments tends therefore to be exerted to secure short-term results.

Mercantilists also stressed the power of the State. They considered that economic activity should be subservient to the needs of the State. In pursuit of this policy of power they adopted two methods : " The first consisted in deflecting economic activity directly towards the particular ends demanded by the political, and more especially by the military, power ; the second, in creating a kind of reservoir of economic resources generally from which the policy could draw what it required." [22] This strikes a very modern note. The first parallels that adopted by the despotic " totalitarian " régimes ; [23] the latter that followed by the democracies. While this is not the place to pursue this subject it is relevant to point out that, in the short run at least, it is such political factors which are now having a preponderant influence on economic affairs and through them, upon the structure of British industry.

Re-armament (during the period of near-war) and the present requirements for the prosecution of the war must adversely effect the economic welfare of the people. Whereas the long-term trend has been to expend an increasing proportion of the national income on economic welfare, the war economy will reverse this trend. Future generations will be adversely affected if our holdings abroad are used to pay for war requirements and the necessary capital replacements are not forthcoming.

The wheel appears to have revolved full cycle. The reaction from laissez-faire and the nineteenth-century abuses of private enterprise have left us with an uncomfortable alternative to the unbridled pursuit of wealth : it is the pursuit of power.

The reasons for the avoidance of " autarkie " in this country's pursuit of power are manifold : economic,

political, cultural and geographic. The methods by which we have practised self-help are also numerous, but they are capable of easy summary and are more directly the concern of this book. The policy of self-help has been pursued by a government-determined policy of " cheap " money behind depreciated exchanges together with protection, bi-lateral trade agreements and direct stimuli to home industry and agriculture. The result has been to build up the home market while the export trade has declined.

The expansion of the home market and the decline in the export trade have changed the centre of gravity of industry. The depressed areas are the direct result of the decline in the export trade. The prosperity of the Midlands and the south-east is equally due to the shifting emphasis on direct production for home consumption. The change is reflected in, among other things, the employment and unemployment in the various industries ; the increasing employment in the south and persistent unemployment in the north, in Scotland, in South Wales and in Lancashire and Cumberland. The change is also shown in the fact that the increase in the net output by value of the Census industries, between 1924 and 1935 was almost solely confined to the Midlands and Greater London.

In recent years there has been a marked " internal " mobility of labour. Workers have been seeking work away from the depressed areas and in the " expanding " industries. There has been an influx of labour from the north to the south and from coal-mining, textile and metal industries, into building, public works contracting, motor and aircraft industries, electrical engineering, entertainments and the distributive trades. The emphasis has been on increased employment in the " lighter " industries, and this is part of the change caused by the expenditure of an increased proportion of the net national income on these goods and services.[24]

The corollary to this has been that the " heavy " or " basic " industries are not maintaining their importance in the general economy of the country.[25]

One further factor in the consideration of employment and unemployment calls for attention here. The increased production that has taken place has been in part due to the increased productivity of labour and the greater *per caput* expenditure on capital equipment. In the coal industry, for example, there is no doubt that the industry has been depressed because of the loss of foreign markets ever since the temporary boom during the occupation of the Ruhr. Nevertheless, the increase in mechanisation particularly since 1927, has been a cause of unemployment. In agriculture—another industry where the decline in the number of workers has been very marked, though without creating a problem of unemployment—the gross output to-day is greater than in 1908, or even in 1870 when the arable acreage was considerably greater. The combined index of agricultural and industrial production shows over a 40 per cent. increase between 1924 and 1937.

Turning now to the location of industry we find that the (approximately) 170,000 factories in Great Britain are distributed between the various areas in the following proportions :

TABLE I

LOCATION OF FACTORIES

(Compiled from the Board of Trade Annual Industrial Survey.)

	Per Cent.
Scotland	12
North-East England	4
North-West England and North Wales	16
Mid-East England	13
Central England	14
South-East and East England	30
South-West England and South Wales	11

The heavy concentration of factories in the Midlands and the south-east of England will be noticed, though it must be remembered that the table gives no indication of the size of the factories. Nevertheless, combined with the information as to the value of the net output and the employment in those areas, there is ample confirmation of the general tendency described as a shift in the centre of gravity of the industrial structure towards the south.

Despite these facts and the disinclination on the part of industrialists to open up new enterprises in the depressed areas there has not been, on balance, a net movement of factories away from those areas. But there has been a tendency for more factories to close than to open.

The resultant stagnation of industry in the depressed areas has itself been a cause of a modified attitude towards laissez-faire in the location of industry. In the areas labelled "special," Government and voluntary assistance has been used to induce industrialists to settle factories there. Official recognition that the problem of unemployment in those areas could not be solved by palliatives goes back to 1928. But it was only in 1937, by the Special Areas (Amendments) Act, that direct financial inducements were offered to industrialists to settle where unemployment was severest. It was recognised that, despite the mobility of labour, the movement out of those areas was too slow and also more costly than to bring employment into those areas.

Within industry itself there has been, during the post-war years, a revived movement towards amalgamation, to form cartels, to integrate productive processes, to expand enterprises vertically into distribution, wholesale and retail. Exporters in their scramble for foreign trade have modified their practices. Financial control in industry by means of holding companies is

now so common as to be a normal business method. While, by the numerous methods open to them, industrialists have attempted to mitigate the effects of competition, that force, which, together with the incentive of profits, is supposed to be essential to a thriving economic system.

The industries connected with the export trade—coal, shipping, shipbuilding, cotton—have all been assisted in their efforts to control their output or to rationalise their business conditions.[26] The difficulties of obtaining agreement upon any measures to be taken would otherwise have been insuperable. In old-established industries it has been necessary to scrap obsolete plant and factories, the finance for which would not have been available without some outside guarantor.

The financial machinery and methods have been adapted, to some extent, to meet these changes. The Treasury and the Bank of England have "intruded" into industry and the commercial banks have co-operated with the Bank in assisting the establishment of organisations, such as the Agricultural Mortgage Corporation. The new methods of finance by hire-purchase and the re-adoption of the internal trade bill, the growing importance of building societies, investment trusts and insurance companies also mark some of the changes.

Another factor of considerable importance which has affected and still is affecting the structure of British industry is the relative increase in the proportion of public to private property since 1918.[27]

The implications of this are more important than the mere facts. The extension of the control of Government and Local Authorities over enterprises that were formerly considered the preserve of private enterprise is important; but probably the most important factor in industrial and social life is the extension of control

of semi-public bodies such as the London Passenger Transport Board, the Central Electricity Board and the Sugar Beet Corporation, which have been established by Act of Parliament from organisations formerly run as private enterprises. The actual ownership of the shares in these companies remains in private hands, but the control is either with a directorate appointed by the Government or by statutory regulation of their activities and/or profits.

The divorce of ownership and control is not confined to organisations with which Government is concerned. The days are past, as far as large scale private enterprise is concerned, when the person who owned inevitably controlled (and took the risks of that ownership and control). Control tends to be in the hands of a directorate, who in their own persons frequently are the means of interlocking the interests of numerous firms. Control, and the power which goes with it, is highly concentrated.

It would be incorrect to leave the impression that each and every industry is organised as a monopoly or a cartel. As we have pointed out,[28] of some 120,000 registered companies probably nine-tenths are private firms of the type which are still, in the main, organised along individualist lines and are not associated with other businesses. The only type of association to which such firms belong is frequently the local Chamber of Commerce. The " small " man still holds a primary place, if not by economic power then by remaining relatively numerous, in the industrial, commercial and agricultural structure of the country.

That business is regimented by Government is, of course, much more true now than at the beginning of 1939. But even this requires careful qualification. While the United Kingdom is at war it is to be expected that the international trade of the country will be affected. Both imports and exports will be determined

by war needs. The primary call on heavy industry will be to produce goods required by the fighting services. Some of the industries and distributive services will come under national schemes. Farmers will be required to modify their production according to the available supplies of imported feeding-stuffs, and the new demands made upon the land to feed a larger proportion of the population. Normal peace-time consumption of the civilian population will have to be modified with consequential effects on industry and the distributive services. But the essential fact is that enterprise is still privately owned and the relationships between the industrial and commercial units and the general public remain fundamentally unchanged. The factor which is of growing importance is the directive power of the Government. To what extent this will modify the structure of businesses during and after the war no one would be so bold as to prophesy. And yet, the developments in the present industrial structure have their origin, at least as far back as the near-war period before 1914, and do not represent a break with the past. "*Natura non facit saltum*," Marshall quoted, and even now it appears appropriate. The main economic and social problem is how to utilise these factors to achieve the results necessary for an improved economic and social order.

It will be recognised that economic factors are not the sole determinants of the close-knit relationship of industrial units and commercial units. Among these non-economic factors technical considerations act sometimes as the primary incentive. The increased production of electricity has required a relatively new departure in the use of power. Electricity can be produced more cheaply in bulk and it can be transmitted over long distances. Thus the change from production in small generating units to production in giant power stations

was to be expected as the technique of production and distribution developed. Instead of the 500 generating stations which existed when the Central Electricity Board was created, it is anticipated that by 1941 there will be only 60 huge power stations with consequent effects on the methods of distribution.

Whether through economic or technical considerations, certain industries have favoured industrial combination or association. Combines, amalgamations, cartels and other forms of control over production or the sales price, are most highly developed in such industries as iron and steel, where thirty-seven firms produce 86 per cent. of the output, and the milling industry, where the mills situated at the ports increased in size and importance with the growing importance of imported supplies of wheat. To-day, probably three-quarters of the output passes through fifty-seven mills. Other industries with highly developed forms of central organisation and control are the electrical trades, the cement industry, the engineering and coal industries and distilling.

While *some form* of association is to be found in most spheres of industrial activity the independent unit is retained, for example, even in the motor industry. Although the "stop-list" operates for all dealers, the individual manufacturer retains his absolute *control* over all factors relating to production and selling.

Whereas the industrial unit in the motor industry tends to be large, in the weaving section of the cotton industry (where the industrial unit largely retains its independence) the unit persists in remaining relatively small. In the woollen industries, in the wholesale and retail trades, despite the encroachment of large manufacturing firms and the growth of multiple shops, the small independent firms are still responsible for the largest part of the throughput. In agriculture, although

there are over 14,000 holdings of over 300 acres each, which account for one-sixth of all the cultivated land, there are some 160,000 agricultural producers on their own account and two-thirds of all agricultural holdings in this country do not exceed 50 acres in extent. It is true that there are marketing boards and commissions, but the basis of British agriculture remains relatively untouched by large-scale methods of production.

An examination of the bankruptcy returns gives some slight confirmation of these views. After all, when a vast organisation crashes, the echoes resound for a long time. . . . The crash of a Hatry, a Kreuger or a Kylsant affects the enterprises with which they were connected. But the bankruptcies of the past ten years show few examples of large business failures. Indeed the tendency is for size to be a security against failure ! On the other hand the table shown on page 20 of the " Number of Receiving Orders and Deeds of Arrangements " between 1928 and 1937 show that the majority are quite small firms, and if there were space to show a full list of firms of different types, this fact would be emphasised.

In industries such as agriculture, building, clothing, and in the distributive trades, where the small firms are still predominant, there are most bankruptcies. This does not, of course, mean that their liabilities are greatest. Thus, while it is necessary to avoid overstressing the indications of the bankruptcy statistics, the following table does present, to some extent, the obverse side of the picture just as unemployment is another aspect of employment.

This general introduction to some of the numerous factors affecting the structure of British industry would be incomplete without reference to the changes which are occurring in the age composition of the population,

TABLE 2

NUMBER OF RECEIVING ORDERS AND DEEDS OF ARRANGEMENTS, 1928–1937

(Compiled from the Annual General Reports on Bankruptcy by the Board of Trade.)

INDUSTRY OR TRADE.	1928.	1929.	1931.	1935.	1936.	1937.
1. *Production and Extraction*—	No.	No.	No.	No.	No.	No.
a. Agriculture	521	386	545	265	266	316
b. Mine and Quarry Proprietors and Employees	48	32	31	14	12	6
c. Textiles	118	134	100	53	36	29
d. Building	539	540	595	712	745	779
e. Electricians	98	91	110	90	102	82
f. Engineers	33	41	55	40	36	26
g. Paper Manufacturers (and Merchants)	11	8	12	15	18	14
h. Ship Builders and Owners	7	7	5	4	4	8
i. Clothing	474	451	541	351	339	319
2. *Merchants and Wholesalers*—						
a. Builders	21	27	28	15	17	18
b. Wool	16	18	28	8	10	7
c. Motor and Cycle Dealers	64	54	72	60	61	56
d. Provisions	44	50	62	101	72	37
e. Merchants: General	75	52	42	24	24	38
3. *Retailers*—						
a. Chemists and Druggists	48	35	44	46	50	47
b. Fishmongers and Poulterers	101	87	98	41	51	58
c. Greengrocers	169	131	159	137	129	114
d. Grocers	369	371	308	347	332	344
Total—All Returns	6221	5900	6818	4753	4847	5158

and the future probable trends of both the age composition and the absolute numbers of the population.

Although there was an absolute increase in population between 1931 and 1939, the population is not replacing itself. This apparent paradox is explained by the increased expectancy of life (apart from the war), the abnormality of the age composition of the population, and to the net inward balance of migration which have resulted in an increased population. But fertility, which

—again apart from wars—is the main factor determining the net reproduction rate of a population with a low death-rate, is no longer high enough to ensure the maintenance of the population.

A decline in numbers will be accompanied by an increasing preponderance of old persons in the age composition of the population which will cause a change in demand and will affect both the supply of labour and the ratio of capital to labour. A decline in the demand for toys and nursery equipment will be accompanied by an increased demand for middle- and old-age comforts.[29]

Prophecies as to the future age-composition and numbers of the population is liable to serious error, though they are far from useless. All the computations have been based upon assumptions regarding the fertility and mortality rates and migration. The effect of making such assumptions is to rule out any accuracy in long-period estimates ; while even short-period estimates (over ten or twenty years) are seriously invalidated by the war.[30]

Nevertheless the prospect of a serious change in the age composition of the population and its absolute decline is such that the effects on the structure of industry require consideration, especially as the solution of the problems that will arise is largely one of organisation, *i.e.* the adaptation to changed amounts of the capital per head of population, of the proportion of workers available to the total population and adaptations to meet changes in the demands of the population. These considerations give rise to problems which may be more precisely stated as relating to general employment and unemployment, to specific unemployment due to dislocation in individual industries, to the distribution of the national income and to the changes in the burden of taxation.

While nothing is more foolish than to dogmatise

about the effects of the decline of population, they will depend, to an important extent, upon the rate and length of the decline and the capacity with which the new generation tackles those social and industrial problems of organisation, the failure to solve which is a cause of this present generation attempting to destroy itself. These are problems which affect the whole of the West.

This essay into problems which verge on the ethical as well as the economic may be forgiven in a book which, for the remaining chapters, attempts to set out the cold facts now operating in industry : the industrial output, the mechanism of the industrial machine, the distributive and financial processes ; labour, transport, power and the location of industry. These facts appear to take us away from all speculation and ethical problems. And yet, economics is a part-study of human welfare, and the solution of many economic problems is only to be found together with the solution of the broader problems of human relationship.

NOTES

[1] Keynes, J. M., *The End of Laissez-faire*, p. 5.

[2] Anyone reading the Reports of the Select Committees of the first quarter of the nineteenth century must notice the growth of the laissez-faire attitude among the members. See, for example, the Reports of the Select Committees of 1820, 1821, etc., dealing with Agricultural Distress.

[3] The Statute of Apprentices was repealed in 1813–14.

[4] Roll, E., *History of Economic Thought*, chap. v.

[5] Keynes, J. M., *op. cit.*, p. 11.

[6] See his *Principles of Political Economy*, People's Edition, 1866, chap. xi., and Clapham, J. H., *Free Trade and Steel*, p. 393.

[7] German agriculturalists demanded protection from food imports : manufacturers from the invasion of the home market from competition which caused home unemployment.

[8] Fisher, H. A. L., *History of Europe*, p. 1052. Bismarck's suppression

of the Socialists (1878) and his suppression of civil liberties demonstrate that this legislation was " preservative " and did not arise from progressive social concepts.

[9] Morley, Lord, *Life of Richard Cobden*, p. 800.

[10] By the Truck Acts of 1831, 1887 and 1896 the State ensures that wages are paid in legal currency without deduction or payment in kind.

[11] Clapham, J. H., *Free Trade and Steel*, 1850–86, pp. 250–1.

[12] A Consolidating Act was passed in 1929.

[13] In 1907, private companies were given legal recognition. In 1930 there were 113,327 companies with a capital of £3,300,000,000. Although nine-tenths of these were private companies they only accounted for between one-third and one-fourth of the total capital.

[14] *Economics of Industry*, chap. iii., "The Growth of Economic Freedom," esp. p. 23, where the quotation continues : " Thus gradually we may attain to an order of social life, in which the common good overrules individual caprice."

T. H. Green, the Oxford philosopher, had preceded Marshall in his arguments in favour of State interference which he considered necessary to remove social obstacles to personal freedom.

[15] *Official Papers*, p. 386. In reply to the question, " How far, and in what directions, the circumstances which formerly made Free Trade the best policy for this country have been altered ? " he replied : " The principles on which our present fiscal system was based sixty years ago seem to me to be not ultimate but derivative. They were obtained by applying certain truths, which are as universal as the truths of geometry or mechanics, to certain conditions which are transitional."

[16] Fiscal independence was extended to India after the war of 1914–18.

[17] Developments among the joint-stock banks had a considerable similarity to that of industrial enterprises.

[18] See the Reports of the Carnegie Endowment for International Peace, *e.g.*, Middleton, T. H., Sir., *Food Production in War ;* Lloyd, E. M. H., *Experiments in State Control in the War Office and the Ministry of Food ;* Salter, A., Sir, *Allied Shipping Control ;* and, in addition, Beveridge, W. H., Sir, *British Food Control.*

[19] The title of a pamphlet written by Mr. Keynes attacking the return to the Gold Standard in 1925.

[20] Dumping is a term used with various meanings. Most generally, it means sale in the foreign market at prices below those for which the goods sell in the home market.

[21] *i.e.*, specialisation by each country on production for which it is most fitted so as to bring about an exchange, between countries, of cheaply produced goods.

The U.S.S.R., like U.S.A., needs to be treated as a continent rather than a country both because of their size and their natural economic independence of other countries: though even here the dependence of U.S.A. on European prosperity is to be noted.

[22] Heckscher, E., *Mercantilism*, vol. ii., p. 31.

[23] The best general account of the German position, although somewhat out of date, is that in the *Banker*, February, 1937. More recent examinations of the economic position of Germany are: Guillebaud, *German Economic Recovery*, 1933–38, and Norman Crump, *The Economics of the Third Reich*, in the *Journal of the Royal Statistical Society*, 1939, part ii.

The great need of Germany for foreign exchange and gold for the purchase of war material is of interest and relevant to the discussion in the text.

[24] The long term trend has been for an increased proportion of the national income to be expended on those industries which cater directly for the consumer. This is now being altered to meet the demands of the country at war. We must expect, therefore, to see the long-term trend reversed, at any rate for the period of the war.

See Epilogue above for a discussion of this and other effects of *Rearmament and War*.

[25] War has, inevitably, involved a reversal of this tendency but not, of course, with the effect of ultimately producing a higher standard of living as the result of the increased expenditure on the heavy industries.

[26] Bowley, A. L., *Production and Efficiency*, p. 11, *Journal of the Royal Statistical Society*, vol. cii., part i., 1939. Rationalisation includes "the most economical use of the best machinery, good co-ordination of processes, careful adaptation of tasks in the best physical conditions to suitably trained workers, cost accounting and acute intelligence of management."

[27] See Campion, H., *Public and Private Property*, chap. v., in particular p. 91. See also p. 3 where he estimates that public property in its "purest" form has increased from 6–9 per cent. in 1911–13 to 8–12 per cent. of private property in 1932–34.

[28] See footnote 12, p. 23 above.

[29] See Reddaway, W. B., *The Economics of a Declining Population*.

[30] Glass, D. V., *Population Policies and Movements in Europe*, chap. 8. "Nature and Consequences of Population Trends."

CHAPTER II

THE SCOPE AND IMPORTANCE OF INDUSTRIAL AND AGRICULTURAL PRODUCTION IN THE UNITED KINGDOM

IN this chapter, and in Chapter IX. in particular, we attempt to show the character of the economic welfare of the United Kingdom. But in attempting to give some account of the most important factors directly determining why we are so well off or so ill off as we are, there are serious difficulties due to the deficiencies in the statistics available. We possess a Census of Production and no Census of Distribution. We have our "Annual Statement of Trade" (which, incidentally, refers only to external trade), but no Annual Statement of Internal Trade.[1] Thus there is no direct method of presenting a statistical picture of the production of industry and agriculture, and the distribution of their products to the consumer. However, the main concern here is with the productive side of business, and for that purpose an obvious starting-point is the Census of Production (Preliminary Returns) for 1935.

It must be observed, however, that the main interest is not in the absolute correctness[2] of the value of the output of an industry, or groups of industries, or of the number of persons employed, but with their relative importance as contributors to the national income.[3] As a statistical fact given *in vacuo* has no meaning, we must be concerned with the relationship between such facts.

The most satisfactory measure of the relative importance of industries is the value of the net output provided by the Census of Production. This is because " out of the net output has to come the return to both labour and capital ; it is the value added to the cost of the raw materials by the industry or to the distributor."

There are two other possible methods of demonstrating the relative importance of the contributors to the net national income. The first is the " expenditure " of the net national income. This can also be useful in providing additional information about the structure of industry. The second is to consider the relative importance of employment, though this is not a concept free from ambiguity. The net output per person varies considerably. It varies between " sheltered " and " unsheltered " industries ; it varies also within industries of either of these categories. There is variation, too, where the size of the unit is different and the amount of fixed capital in the industries related to the number of employees differs. Moreover, one industry gives more indirect employment than another. Consequently [4] both these methods have only a limited usefulness.

The net national income [5] of the United Kingdom was estimated to be £4,318,000,000 in 1930, £3,844,000,000 in 1932 and £4,530,000,000 in 1935.[6]

Clark explicitly states that the determination of the necessary allowances to estimate the net national income is to a considerable extent a matter of conjecture. Nevertheless, the net national income provides a better basis for a factual approach to the consideration of the changes in the structure of the industrial system, than the gross national income. To use the latter it would also be necessary to use the value of the gross output of industries. The gross value of the national income

would considerably exaggerate our economic welfare, while the gross value of the output of any industry [7] would completely misrepresent its importance.

After excluding income from overseas, the net national income in 1935 produced by some 22,250,000 " gainfully occupied " persons in the United Kingdom amounted to £4,315,000,000.

Of the home-produced net national income, some 20 per cent. is outside the scope of this study. That 20 per cent. is the contribution of a variety of activities such as medicine, education, domestic service and entertainments (including gambling). To reverse the position, this study is concerned with approximately 80 per cent. of the net national income, contributed by industrial, agricultural and extractive enterprise, transport services, distribution, commerce, finance, insurance and banking.

The most recent Census of Production (1935) included 123 separate divisions of industry. Of these, 109 were " factory " trades (*i.e.* manufacturing or processing trades) and 14 " non-factory trades (*i.e.* extractive industries, building trades, public utility and Government service). The Census covers the complete range of " productive " enterprise.[8] But it does not include the small firms employing ten persons or less, agriculture, fisheries or forestry. These, therefore, will need to be dealt with later.

The Census returns are also divided into 15 trade groups (one of which is " Miscellaneous " and one " Public Utility and Government Departments "). The general information thus available from the 1924, 1930 and the (preliminary) Census for 1935, in terms of the monetary values of each of those years, is shown in the following table.

Where these statistics of value are compared, it is necessary to bear in mind the change in purchasing power of money during those years. The wholesale

index number (1913 = 100) fell from 166·2 in 1924 to 119·5 in 1930 and 104·1 in 1934,[9] while the Annual Index of Production for the same years is 100, 106·5 and 120·4.

TABLE 3

VALUE OF THE NET OUTPUT OF "CENSUS" INDUSTRIES, 1924, 1930 AND 1935.

(Compiled from *Final Report of the Census of Production*, 1930, Part V., and the *Board of Trade Journal*, 23rd December 1937. Table II.)

TRADE GROUP.	1924.‡		1930.‡		1935.‡	
	Value of the Net Output of each Group.	Relative Importance of each Group.	Value of the Net Output of each Group.	Relative Importance of each Group.	Value of the Net Output of each Group.	Relative Importance of each Group.
	1.	2.	3.	4.	5.	6.
	£'000,000		£'000,000		£'000,000	
FACTORY TRADES:						
I. Iron and Steel	98·6	6	91·9	8	114·8	6
II. Engineering, Shipbuilding and Vehicles	198·4	3	229·6	1	240·6	1
III. Non-Ferrous Metals	25·3	14	23·9	14	29·3	14
IV. Textiles	221·8	2	147·7	5	156·4	4
V. Leather	11·6	15	10·2	15	10·3	15
VI. Clothing	75·7	9	78·2	9	77·4	10
VII. Food, Drink & Tobacco	172·5	4	188·0*	3	196·6*	3
VIII. Chemicals, etc.	65·8	10	72·8	10	87·4	8
IX. Paper, Printing and Stationery	93·9	7	103·3	6	109·7	7
X. Timber	27·3	13	31·5	13	32·4	13
XI. Clay and Building Materials	43·6	11	45·1	11	53·5	11
XII. Miscellaneous	41·5	12	42·9	12	42·7	12
Total—Factory Trades	1,076·0	–	1,065·1	–	1,151·1	–
NON-FACTORY TRADES:						
XIII. Building and Contracting	80·6	8	94·1	7	86·5	9
XIV. Mines and Quarries	226·4	1	155·2	4	136·2	5
XV. Public Utility and Government Departments	165·7	5	189·9	2	202·4	2
Total—Non-Factory	472·7	–	439·2	–	425·1	–
Total—All Trades	1,548·7	–	1,504·3*†	–	1,576·2*†	–

Note.—Columns 2, 4 and 6 show, in each of the years 1924, 1930 and 1935, the relative positions of the Trade Groups. Thus, in 1924, Mines and Quarries is first by value of net output; in 1930 and 1935, Engineering, etc. (*Notes on following page.*)

The table opposite indicates the importance of the "Census" industries as contributors to the net national income and the changes that have occurred in their relative importance between 1924 and 1935. The importance of the "basic" industries—Engineering etc., Iron and Steel, Textiles, and Mines and Quarries—is clearly marked. But the decline in the relative importance of Mines and Quarries indicates also the well-known fact that coal-mining has suffered a severe secular set-back. The same, but to a lesser extent, may be said of the Textiles. The premier place of Engineering, etc., indicates the increased importance of fixed capital in industry, while Iron and Steel by 1935 recovers its relative position held in 1924. The Food, Drink and Tobacco group continued to expand steadily, its relative importance increased, and this coincides with its importance as an employer of labour and as a contributor to the national income. Or, to put it another way, these figures indicate that more of the increased net national income is being spent on food, drink and tobacco, as is also happening in the distributive trades generally.

Chemicals, etc., have increased in importance, while it is notable that "non-basic" groups such as

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* Including subsidy on home-grown sugar at £2,219,000 in 1935 and £6,022,000 in 1930.

† Excluding estimated excise duties as follows for each trade group:

	1924.	1930.	1935.
	£'000	£'000	£'000
IV. Textiles	—	2,091	1,600
VII. Food, Drink and Tobacco .	93,424	59,230	72,750
VIII. Chemicals, etc. . . .	—	2,846	3,160
IX. Paper, Printing & Stationery .	—	70	80
	93,424	64,237	77,590

‡ Index of the total net output by value { 1924=100; 1930= 99; 1935=107

Leather and Timber do not change in their relative position in the scale of industries.

One of the most interesting features of the table is the increased importance of the Public Utility and Government Departments' group. The expansion of the public concern and the increased " interference " of Government in industry [10] and finance [11] are factors which are dealt with elsewhere, but the table provides our first indication of this development.

The table also shows that the value of the total net output in 1935 was more than one-third of Clark's estimate of the net national income. Actually it is 38·8 per cent. For our purpose we may regard the net output of the " Census " industries as being approximately 40 per cent. of the net national income.

In the absence of a similar estimate for the small firms for 1935, we have relied upon the information available in the Censuses of 1924 and 1930. In those years the value of their net output is estimated to be £134,000,000 and £121,000,000 respectively, though no precision is claimed. On that basis, however, the small firms contributed approximately 8 per cent. of the total net output by value of the industries.[12] The number of persons employed by these small firms was approximately 10 per cent. of the total.[13] The proportionate contribution of small firms did not at any rate decline between 1924 and 1930. On the basis of this fact and that the years between 1933–35 were the years of recovery—and despite the tendency to " scrap " small firms in the heavy industries—we have assumed that their proportion of the value of the net output is unchanged since 1930. On that assumption the total net value for 1935 is £1,713,113,000, or an increase on the total given in Table 3 of £137,049,000, or an additional 3 per cent. (excluding income from overseas). Thus the total proportion of the industrial contribution to the net national income is some 43 per cent.

Next we consider agriculture before proceeding to any further analysis of the industrial production.

Clark estimated that for the agricultural year 1930–31 the value of the net output was £126,000,000 when £256,000,000 of produce was sold off farms. He also puts the value of the net output for the calendar year 1930 at £137,000,000. This represents 3·2 per cent. of the net national income in that year.

Statistics of the value of the gross output of agricultural commodities for Scotland for the year 1935–36 are not available, but we have estimated it to be approximately £40,000,000. This, together with the available estimate for Northern Ireland (£14,500,000) and England and Wales (£208,000,000) gives a United Kingdom gross total as approximately £260,000,000. From these statistics we have estimated that the proportionate net contribution of agriculture was much the same as in 1930–31,[14] *i.e.* 3·2 per cent.

Hence we estimate the total value of the net output of all industrial, agricultural and extractive industries (excluding fishing and forestry) in the United Kingdom contributed approximately 45 per cent. of the net national income in 1935.[15] These proportions may be compared with the estimate made by Clark. He shows that distribution of the "Product of Industry" in 1930 was as follows :

	£ Millions.	Per cent. of total value.
Manufacturing, Mining and Building . . .	1,496	41·6
Railways and Workshops .	153	4·3
Agriculture . . .	126	3·6
Other Transport Commerce, etc.	154	4·3

Thus on Clark's estimates (which, if accurate, should hold good as proportions in the short run), 45·2 per cent. of the home-produced net national income is contributed by industry and agriculture. And including

the other two categories as directly within the orbit of industrial activity, we have a total of 53·8 per cent. If, however, we exclude Other Transport, Commerce, etc., as being more closely allied to Distribution, that leaves 49·5 per cent. with distribution, finance, etc., accounting for probably another 25 to 30 per cent. of the net national income.

We can now consider the output of industrial production in more detail and from a different angle. The table opposite shows the distribution of the net production of " Census " industries only, over the whole of the United Kingdom for the years 1924, 1930 and 1935.

The first and most notable fact is that the value of the net output of England increased more than sufficiently between 1930 and 1935 to offset the decline in Wales, Scotland and Northern Ireland. Indeed, the analysis can be carried a stage further, and the whole of the increase in the net value of production is shown to have been contributed by three areas of England : (1) Greater London, (3) the West Riding of Yorkshire (which, however, had not recovered to the position of 1924), and more particularly by (5) Warwickshire, Worcestershire and Staffordshire. Lancashire, Cheshire, etc., barely held their ground between 1930 and 1935 and lost ground considerably in any comparison with 1924. The " Rest of England " shows expansion (by net value) between 1924 and 1930, but is stable between 1930 and 1935. The decline for both Wales and Scotland (except the West Central area) is most marked. In brief, " prosperity " up to 1935 lay with the Midlands and Southern England. For the rest the South-Eastern area, while not expanding rapidly, was holding its own ; but the remainder of the United Kingdom reflected the conditions of international trade. But it is a well-known fact that production did not fall off to the extent implied by the value of the commodities.

TABLE 4

SUMMARY OF THE VALUE OF THE NET OUTPUT OF "CENSUS" INDUSTRIES FOR EACH AREA OF THE UNITED KINGDOM.*

(Compiled from Census of Production, 1930 and 1935.)

AREA.	Value of Net Output in 1924.	Value of Net Output in 1930.	Value of Net Output in 1935.
ENGLAND AND WALES:	£'000,000	£'000,000	£'000,000
1. Greater London	276·9	339·2	386·1
2. Lancs, Cheshire, Glossop, and Newmills	290·6	241·2	241·1
3. West Riding of Yorkshire	173·7	141·0	157·1
4. Northumberland, Durham and North Riding	84·9	73·3	66·8
5. Warwickshire, Worcester and Staffs.	161·8	165·8	191·4
6. Rest of England	285·7	314·3	314·8
7. South Wales (incl. Monmouth)	76·0	55·6	50·0
8. Rest of Wales	14·4	9·9	10·5
Total—England and Wales	1,364·0	1,340·3	1,417·8
SCOTLAND:			
9. West Central	79·4	72·8	70·0
10. Rest of Scotland	81·5	70·4	68·4
Total—Scotland	160·9	143·2	138·4
11. Northern Ireland	24·0	20·4	19·8
Total—United Kingdom †	1,548·7	1,504·3	1,576·2

* There are very slight discrepancies in these totals and in Table 3, due to taking the values to the nearest £1,000,000. Totals also exclude Excise paid as set out in footnote to Table 3.

† It is, of course, true as we have shown elsewhere that purchasing power altered. Nevertheless, this factor does not affect the above statement. The output by volume may have increased for all parts of U.K., but the preponderence of increase is centred in England.

It is therefore useful to give some account of the volume of goods produced since 1924.

TABLE 5

ANNUAL INDEX OF PRODUCTION *

1924 = 100·0	1932 = 98·8
	1933 = 107·7
1927 = 110·1	1934 = 120·1
1928 = 108·7	1935 = 126·9
1929 = 115·8	1936 = 137·0
1930 = 106·5	1937 = 142·9
1931 = 97·3	1938 = 131·0

* London and Cambridge Economic Service, May 1938, Table 1, p. 212.

The secular trend of increased production is clearly marked, but with set-backs due to the cyclical decline between 1929 and 1933. From 1933, however, there is a renewed upward swing of production which surpassed easily any peak of the previous decade.

An index number of the aggregate physical production, based on the Censuses of Production, shows the following results.[16]

	Aggregate.	Per Operative.
1924	100·0	100·0
1930	105·5	107·0
1935	135·0	134·5

There is agreement between the index of aggregate production shown immediately above and the annual index shown in Table 5 until 1930, from which time the aggregate index shows a much more marked improvement than that in Table 5.

The remarkable increased productivity per operative is well worth noticing. The years of the depression were evidently years of increased productivity per operative. This is to be expected in view of the efforts manufacturers made to help their total revenue against declining prices. It is also a pointer to the importance

of increased mechanisation as a factor in industrial unemployment at times when demand is falling off.

The following table shows the index numbers of production by groups of industries, including agriculture, over a series of years. This table is useful to show trends :

TABLE 6

INDEX NUMBERS OF PRODUCTION BY INDUSTRIAL GROUP, AND COMBINED INDEX, 1924–1938.

(Compiled from London and Cambridge Economic Service, *Monthly Bulletin.*)

Industries.	Agriculture.	Mining.	Iron and Steel, Engineering and Shipbuilding.	Non-ferrous Metals.	Textile Trades.	Food, Drink and Tobacco Trades.	Chemical and Allied Trades.	Paper, Printing and Allied Trades.	Leather Trades.	India-rubber Trades.	Building.	Combined Index.
Weights Proportional to Net Output 1924 Census.	274	232	341	25	270	209	62	98	13	12	35	1571
1924	100	100	100	100	100	100	100	100	100	100	100	100
1925	105·7	91·8	100·1	106·3	105·0	99·4	93·3	99·2	97·1	129·4	135·3	101·4
1926	102·9	50·1	86·2	100·8	97·4	97·0	77·4	106·1	92·4	125·5	168·5	90·5
1927	103·1	95·0	124·5	116·7	104·7	100·9	96·9	118·0	101·1	174·4	207·9	110·1
1928	110·4	90·2	126·8	118·0	99·3	103·0	104·2	105·8	112·2	172·4	136·3	108·7
1929	112·1	97·0	136·4	120·1	98·8	107·1	109·8	133·6	88·9	270·0	164·6	115·8
1930	104·4	92·4	126·2	117·6	79·4	105·5	102·8	122·8	99·9	276·5	140·2	106·5
1931	100·3	83·7	96·3	99·1	82·7	103·7	90·8	114·8	90·0	283·5	164·7	97·3
1932	106·0	79·4	92·1	93·0	87·7	100·0	99·6	134·1	83·6	295·5	163·4	98·8
1933	112·0	79·0	114·0	100·0	95·0	103·2	97·5	139·3	96·9	280·8	196·7	107·7
1934	115·6	84·7	141·3	136·8*	97·3	108·3	100·2	159·4	91·4	388·9	260·4	120·1
1935	113·7	85·7	165·0	159·0	103·5	112·0	106·3	159·3	105·1	338·9	261·0	126·9
1936	117·6	88·4	192·4	166·8	109·1	118·2	110·4	173·7	114·7	282·6	278·2	137·0
1937	116·0	93·3	202·5	183·1	125·6†	119·1	123·1	153·7	118·1	411·5	274·0	142·9
1938	116·2	86·0	179·1	162·0	101·2†	124·4	113·3	137·9	91·7	373·0	268·0	131·0

Any index of "real" output for more than one commodity must take the form of a "weighted" average of indices relating to different commodities. Hence such an index has limited meaning and must be used cautiously.

* New series. † Excl. wool.

While these indices must be used with caution, certain trends for the groups of industries are clear. At no time has agriculture fallen back to the 1924 position, though this was closely approached in 1931. Indeed, since 1931 there has been a most marked improvement. Mining, however, has suffered not only from falling values, but also from falling production (mainly due to the loss of export markets). The Iron and Steel group reflects the resilient position of important basic industries. Textiles, which have suffered like Mining from loss of export markets, are shown to have made a partial and somewhat insecure recovery from 1930. The steady increase in output of Food, Drink and Tobacco (allied as it is with distributive trades) is notable. So also to a lesser degree is that of the Chemical Industries group. Of the other groups the India-rubber Trades show a remarkable expansion due to the increased sales of motor vehicles. Building, which is well known to have been an important factor in recovery, is shown to have expanded very rapidly between 1933–35, and to have slackened off slightly after 1937.[17]

Once again we see that the most marked increases have been in the "new" industries such as India-rubber Trades, but these are not such as compensate, from the national viewpoint, for the loss of output (or relative decline in production) of industries such as Mining and Textiles. The table opposite illustrates the changes in somewhat greater detail.

Coal-mining shows a precipitate decline by value out of proportion to the decline in productivity. The "new" cement industry shows a considerable expansion despite price control. While the gas industry still expands, the electricity industry doubled its output between 1924 and 1935, and surpasses, by net value, the output of the gas industry. The railways show a loss of business which, whether due to road competition or

TABLE 7

VALUE OF THE NET OUTPUT IN CERTAIN INDUSTRIES IN 1924, 1930 AND 1935, AND THE VOLUME OF PRODUCTION IN 1935 COMPARED WITH 1930.

(Compiled from Memorandum of Royal Economic Society, No. 75. Sept., 1938.)

TRADE GROUPS.	Value of the Net Output.			Production Index, 1935 (1930=100).
	1924.	1930.	1935.	
	£'000,000	£'000,000	£'000,000	
Group I. Blast Furnaces	5·3	3·9	4·1	101·7
Smelting and Rolling	32·1	25·6	33·4	124·5
Foundries	16·7	17·0	22·0	131·8
„ II. Lead, Tin, Aluminium, etc.	6·5	6·2	9·8	120·9
„ III. Mechanical Engineering	86·1	92·9	95·5	105·1
Electrical Engineering	33·0	44·9	55·5	232·5
Shipbuilding	24·2	27·6	15·2	—
Motor and Cycles	44·7	53·5	60·8	156·2
Aircraft	3·1	5·6	8·5	134·8
„ IV. Cotton Spinning	46·9	19·8	20·1	114·0
Cotton Weaving	36·7	23·5	20·3	102·7
Woollen and Worsted	53·2	37·6	43·0	138·7
Silk and Artificial Silk	10·2	10·6	14·1*	272·0
„ V. Clothing and Millinery	44·6	49·1	49·2	—
Boot and Shoe	22·1	20·8	19·6	116·2
„ VI. Grain Milling	10·9	9·3	11·7	124·2
Bacon Curing and Sausage	4·1	4·4	6·3	146·2
Brewing and Malting	46·2	45·9	42·7	85·3
Tobacco	23·9	30·7	28·2	101·5
„ VII. Furniture and Upholstery	13·7	17·1	17·1	—
„ VIII. Printing, Bookbinding, etc.†	37·6	37·4	36·8	—
„ IX. Gas	29·1	35·3	38·8	100·0
Water	15·4	18·5	21·4	103·0
Electricity	24·8	40·7	49·6	173·2
Railway Companies	43·6	39·5	36·4	102·5
„ X. Coal Mining	209·8	138·6	120·9	109·0
„ XI. Cement	4·6	4·9	5·8	118·4
Brick and Fireclay	14·3	15·3	19·7	143·6
„ XII. Chemicals, Dyestuffs, etc.†	23·3	25·0	36·0	130·5
Soap, Candles, Perfumery	12·3	12·9	13·2	123·9

* Excise Duty, £2,100,000. † Excluding Excise Duty.

not, indicates a serious loss of markets (by the value of goods-charges, though they do little more than hold their own, if measured by the volume of traffic carried). Thus this table gives an important clue to the problems facing industries : some having suffered merely from cyclical declines, while others—again mainly within the category of " new " industries—are expanding. With one relatively unimportant exception (brewing and malting) all sub-groups (for which there is a production index) show an increase in production between 1930 and 1935. For the same period most sub-groups show an increase in output by net value, though there are important exceptions such as shipbuilding and coal. The problem of most industries, where expansion has been negligible, is partly due to their relative stagnation when other industries have been producing and selling more goods than ever before. As these industries tend to be the " basic " industries the importance of this fact is increased, because it means that more effort is being concentrated in those industries which are more allied with " luxuries " than with " necessities." Of course it is simple to argue " what is a luxury ? " What is important is that certain groups of industries covered by the Census of Production (" the necessary industries ") are not expanding as rapidly as other industries.

Their relative stagnation, while the " new " industries expand, demonstrates a significant factor which underlies the changes in the structure of industry which is to be considered in the following chapters. Whether for our future " well-fare " or " ill-fare," industry is being modified if not revolutionised.

NOTES

[1] This is remedied to some degree since 1933 by the inquiries made under the Import Duties Enquiry Act.

[2] Absolute totals depend for their usefulness on definitions, and as Bowley points out, *Wages and Income since* 1860, p. 8: "in the end our result can only be approximate, however exact our definitions."

[3] Pigou, A. C., *Economics of Welfare*, p. 31. "Generally speaking, economic causes act upon the economic welfare of any country, not directly but through the making and using of that objective counterpart of total welfare which economists call the national dividend or national income. Just as economic welfare is that part of total welfare which can be brought directly or indirectly into relation with the money measure, so the national dividend is that part of the objective income of the community which can be measured in money."

[4] The expenditure of the national income is considered below, in chap. vi., and the employment of labour in chap. ix.

[5] Clark, C., *National Income and Outlay*, pp. 4–5, the national income "must be conceived in real, but measured in money, terms," and may be defined for any period "as those goods and services which flow into being during that period which are customarily exchanged for money, avoiding, of course, double reckoning. Net income corresponds to the above definition subject to a deduction, equal to the cost of repairing (and in the course of years) replacing all the capital instruments used up in the production of the divided; gross income is before the provision of such allowances."

[6] Clark, *ibid.*, table 39, p. 94. A more recent estimate of the net national income for Great Britain (*Home Market*, 2nd ed., p. 17) for 1937 is £4,600,000,000. The equivalent for the United Kingdom is probably about £4,800,000,000.

The above values do not make any allowance for the changing value of sterling, and reference to the importance of this has been made. Nevertheless, these figures of net national income indicate the change brought about by cyclical fluctuations. Production did not vary in proportion to variations in prices.

[7] The other authorities on the national income are Bowley, Stamp, Flux and Coates. It is of interest to compare the estimated total income of the United Kingdom and the United States and the estimated *per caput* incomes for the two countries in 1937:

	Total Income.	*Per caput income.*
United Kingdom .	$23,672,000,000	$500
U.S.A. . .	$64,664,000,000	$500

[8] "Productive" is used in the everyday sense as a distinguishing adjective from "service" enterprise, *i.e.*, distribution, transport, finance.

[9] *Statistical Abstract of the United Kingdom.* Cmd., 5903, p. 255. With the index, base 1930 = 100 then 1935 = 93·8.

[10] See chap. iv.

[11] See chap. vii.

[12] The percentages are approximately 8 for 1930 and 7 to 7·5 for 1924.

[13] *Final Report of Census of Production*, 1930, p. 9. The estimated number of persons occupied by small firms in 1930 was 758,000 and in 1924, 680,000. Accepting 758,000 as a basis for 1935, this represents some 10 per cent. of the total numbers employed in all trade groups.

[14] *Sea Fish Tables*, 1935, p. 5. The total value of all fish caught by *Great Britain* fishermen was £12,358,991. Thus, if we include "fisheries," the proportionate contribution of agriculture and fisheries is probably somewhat underestimated. We have excluded forestry as being relatively unimportant.

[15] In an estimate made by Clark (*op. cit.*, table 91, p. 202) of the proportion contributed by railways (General Merchandise), goods vehicles, docks and retail distribution, hotel and catering accounts for 22·3 per cent. of the net national income. This, together with the above 45 per cent., covers the scope of this inquiry, with the main exceptions of the contributions of finance and allied institutions, shipping and power.

[16] London and Cambridge Economic Service. This index is for factory trades only.

[17] This analysis should be compared with that made for employment of insured workers in chap. ix.

CHAPTER III

THE ORGANISATION OF INDUSTRY

ANY full description of the organisation of industry should include the marketing of the product, the purchase of materials, labour and capital, the organisation of these resources into productive units and their legal status. Legal organisation is outside the scope of this book ; capital and labour are discussed later. So this chapter deals mainly with organisation of market control and the rationalising methods of production.[1]

The organisation of industry is not the result of applied theory, but a slow adaptation to market conditions and technical changes ; slow because changes must be made within the framework of existing society with its thoughts and laws formed largely in the past.

The dominant features of the recent past are the growth in the size of firms, with the changes in the nature of competition therein implied. The conscious control of output and prices by firms or groups of firms replace the automatic control of the market. Financial and other methods of interlocking interests, far-reaching State interference with industry, limited liability, the joint-stock company and public commissions and boards, are all legal devices making such developments possible. Technical and economic changes, however, lie behind them. Of the former, the most obvious is the development of mass-production methods. The substitution of machinery for hand work, of mechanical force for animal. The moving belt and automatic methods of production are increasingly used in industry.

Agriculture with machine milking and combine-harvesters and motor-ploughs may have dallied behind industry, but is certainly no longer unmechanised.

The labour force required for a given output has been reduced, and the capital expenditure increased. Overhead costs have become a larger proportion of the total costs : working to capacity has an added importance.

The moving-belt system requires standardisation of parts and processes not possible on a handicraft basis. This standardisation is in itself an outcome of, and a factor in, mass-production. The new technical methods have increased the size of the industrial unit because of these factors.

Some indication of this movement can be obtained from figures in the Census of Production. Table 8 has been compiled from these reports and shows the number of returns and the net output corrected for price changes in certain industries and for certain periods.

TABLE 8

NUMBER OF RETURNS AND NET OUTPUT IN CERTAIN INDUSTRIES, 1924–1935.

(Compiled from *Reports of the Census of Production.*)

Industry.	1924.		1930.		1935.	
	No. of Returns.	Net Output £'000.	No. of Returns.	Net Output £'000.	No. of Returns.	Net Output £'000.
Boots and Shoes .	1,280	21,990	1,057	27,407	969	31,377
Cement . .	109	4,535	73	6,605	not a	vailable
Cotton Spinning .	1,114	46,913	911	27,818	761	31,559
Cotton Weaving .	1,456	36,675	1,182	32,654	964	31,987
Engineering, etc. .	6,315	195,452	6,093	313,828	not a	vailable
Grain Milling .	498	10,399	404	12,617	,,	,,
All Factory Trades.	46,581	1,075,692	42,225	1,479,035	,,	,,

These figures are not an exact measurement of the size of factories in any industry.[2] More exact com-

parisons can be obtained for certain processes. Table 9 shows the size of blast furnaces in 1923 and 1936.

TABLE 9

SIZE OF BLAST FURNACES.

(Compiled from the Balfour Committee's Survey of Metal Industries and the Import Duties Advisory Committee's Report on the Iron and Steel Industry.)

Weekly Output.	No. Working.	
	1923.	1936.
Under 1000 tons .	359	83
1000–1499 . .	84	63
Over 1500 . .	39	50
Totals .	482	196

Table 10 shows similar figures for open-hearth steel furnaces.

TABLE 10

SIZE OF STEEL FURNACES.

(Compiled from the Balfour Committee's Survey of Metal Industries and the Import Duties Advisory Committee's Report on the Iron and Steel Industry.)

Weekly Output.	No. Working.		
	1913.	1926.	1936.
Under 25 tons . .	102	51	31
25–49 tons . .	292	232	96
50–74 tons . .	132	297	206
75–100 tons . .	6	20	68
Over 100 tons . .	14	32	37
Totals .	546	632	440

The development of new industries and the relative decline of some of the old has enhanced the effects of this change. The older industries were organised in the small units typical of the nineteenth century. In some cases they were technically suited to small-scale operation. In several branches of the textile industry, for example, the optimum unit is comparatively small. Even where mass-production technique is economical, the process of change from the older methods is slow and painful. But the newer industries are largely the outcome of mass-production and modern scientific methods, and these industries have been contributing an increasing proportion of the output of industry.

These technical changes have affected the organisation of industry in various ways. The larger industrial unit has resulted in a larger business unit, and this has facilitated different types of organisation. The increased importance of overhead costs has both a financial and competitive effect. Larger capital requirements have brought industry into close contact with the banks, and have assisted the development of combines and holding companies.

Possibly the economic factors are even more powerful than these technical changes in promoting business organisation. They are even driving into combination industries in which economies of mass-production or of large-scale buying and selling are relatively unimportant.

Large-scale operations have intensified competition. Any return on large overhead costs is better than none. So-called cut-throat competition is a common feature, where competing units are few in relation to the size of the industry, and leads directly to tacit or organised market control. Changes in demand and the development of foreign competition at home and abroad have similar effects. A shrinkage in the market for the products of certain industries has produced surplus

capacity and what is called " weak selling." Here is stimulus for combination to control output and prices, but opportunity has not always occurred. Where firms have been few in number and not subject to strong foreign competition in the home market, some form of combination has developed early, as in the manufacture of cement, soap and salt. But in some industries combination has been weak until the introduction of the tariff reduced foreign competition. Frequently external pressure from banks or the Government has been necessary to force changes in organisation, especially where firms are numerous, as in cotton, coal and agriculture.

Firms have combined, not only to be independent of competition in the market for their finished products, but also for the purchase of their materials. The economies of large-scale buying can be obtained by co-operative purchase, with the additional advantage of reducing competition for supplies. Amalgamation with the suppliers of necessary materials gives control over sources of supply, and iron and steel firms are found owning collieries, coke ovens, iron mines, etc.

Finance as a cause of changes in organisation is perhaps more important in the U.S.A. than in this country. But even here, after 1918, many amalgamations were brought about for no other reason than the profits to be obtained from issuing new securities. More recently financial influence has taken another turn. Banks have become closely associated with industry in the course of their business, and have assisted amalgamations and the forming of other organisations for market control in order to safeguard their interests. The Securities Management Trust and the Bankers Development Corporation have been behind a number of recent amalgamations.[3]

Combination has been encouraged in buoyant times with a view to profitable new issues. Combina-

tion has been insisted upon by the banks during the depression to safeguard investments.

With all these different causes at work, a simple pattern of industrial organisation cannot be expected. There is a wide variety and wide linkage of interests ; these must be classified, before the organisation can be described industry by industry.

The public company with limited liability is the legal unit in the basic industries of this country, but older forms, such as one-man business and small private companies are still important in number and in some industries important in output. In agriculture there are many private companies and individual businesses ; farms and holdings are small. In certain sections of the textile industry small private companies prevail, but the remaining major industries are predominantly organised into public companies. The existence of the public company facilitates the organisation of industry into larger groups than the individual legal unit. These groups are of many different types, but there is one unifying characteristic, market control. They all attempt to make themselves independent of the price fluctuations of free competition. This is so widespread that a common form of industrial organisation to-day is not the legal individual, be it person or company, but a grouping of firms aiming at controlling the market.

Some groups contain firms producing the same type of goods, while others contain firms producing goods at different stages in the same chain of production. An association of manufacturers of steel rails is an example of the first type, and is called horizontal combination. But a firm such as Richard Thomas, owning coal and iron mines, blast furnaces and steel furnaces, while mainly specialising on the production of tinplate, is a vertical combination. Further distinctions can be made. Some associations are set up by

verbal or written agreement between independent firms, while other groups are obtained by some form of financial control.[4]

The association [5] or cartel as it is more frequently called in its more elaborate forms, can be grouped according to objectives. But all cartels attempt, by some method, to control the market.

The "gentlemen's agreement" or "honourable understanding" is a loose form of association for the control of the market. Generally prices only are fixed, but control of output is occasionally attempted. These agreements are widespread and frequently found in small local trades, though they are not unknown in industries of international importance. The International Nickel Company of Canada is not a member of the copper cartel, although it controls about one-sixteenth of the world's output. There is, however, reputed to be an understanding between this firm and the cartel as to quantities exported. In the words of John Hilton, these types of association "more easily lend themselves to the exploitation of the public than to the improvement of trade organisation or technique." [6]

More formal, and even more widespread are price-fixing associations. Members give definite undertakings to charge minimum prices, or minimum margins over raw materials.

Other associations attempt to control output, instead of or as well as, fixing prices. Two forms can be noticed: one the restriction of total production and the other the distribution of output amongst the firms concerned.

Far more highly developed are co-operative buying and selling schemes. These, like the other associations, may be either local, national or international in scope. Special agencies may be set up, or one firm may be appointed as agent. The I.C.I., for example, does all the selling for the Sulphate of Ammonia Association.

A recent example in buying of materials comes from the Gold Coast and Nigeria, where a number of firms, controlling about 95 per cent. of the export of cocoa, made an agreement to eliminate " harmful competition." A further development of the method of centralised marketing is the pooling of profits. This is not a very common form in British industry and where found is rather embryonic. The tanker and tramp shipping pools, for example, provide for a percentage of all freights obtained to be paid into the pool to compensate owners of shipping laid up. These are the main types of association. There are others in which some tendering arrangements are made, or spheres of interest are reserved.

In the second type of group, market control is attempted through extension of financial control, a process as it were of industrial imperialism. The first and most simple method is to oust competition by bankrupting competitors, then buying up their works cheaply. This, however, is probably a more expensive method than acquiring control without the losses due to cut-throat competition. In an amalgamation, control is obtained by purchase of at least 51 per cent. of the voting rights, generally in exchange for shares in the parent concern. Complete consolidation can then be reached by the liquidation of the subsidiary companies and the transference of their assets to the combine.

The holding company is another way of obtaining control. A new company is formed to obtain control of all the companies to be merged. Acquisition of at least 51 per cent. of the shares with voting rights is necessary. Most British holding companies own about 90–100 per cent. of the ordinary shares of their subsidiaries, and sometimes considerable blocks of preference shares and debentures. But in the U.S.A., holding companies owning the minimum quantity of stock necessary to obtain control are common. A holding

company of the American type is to be found in the film industry. The Metropolis and Bradfield Trust, which owns 2,915,000 of its 5,000,000 ten-shilling ordinary shares, controls Gaumont British with a capital of £11,250,000. The Trust is controlled by voting rights vested in the ownership of £10,000 capital.[7] Finance and investment corporations of different types have scattered holdings in many concerns. These holdings are rarely large enough to give control, yet they may influence the management in its policy. Interlocking interests of various degrees are widespread : directors of banks, with seats on the Boards of railway and industrial companies, for example. Especially important are the links of this type between finance, railways and industry. Exchange of shares and acquisition of partial interest in other companies may have an influence on the limitation of competition. Firms are also linked by joint interest in subsidiary companies. The new nylon is to be exploited in this country by a company in which both Courtaulds and Imperial Chemical Industries are interested.

As it is impossible in a book of this size to give a complete account of combinations in British industry,[8] a selection has been made for study. From the textile industries, cotton, woollen and worsted, artificial and the textile finishing industries have been selected. From the engineering industries, the manufacture of electrical equipment and motor vehicles ; from the metal industries, the heavy sections of the iron and steel industries; and from the remainder, cement manufacture and grain milling have been chosen for relatively detailed study.

Coal, shipbuilding and agriculture[9] are discussed elsewhere, while the remaining industries are mentioned briefly. In the food and drink trades, competition is still important. Though to some extent competition is limited by brands, but only in a few sections by com-

bines or associations. In distilling, practically the whole of the output of potable spirit is controlled by the Distillers' Company. In tobacco manufacture there are a few small independent firms, but the Imperial Tobacco Company and Carreras dominate the market.

In those textile and clothing trades not mentioned above, combination is rare. There is a price-fixing association for rayon seamless stockings, and also an association controlling output in sole leather. Elsewhere competition is unfettered by associations and combines, although in the boot and shoe industry many manufacturers have set up chains of retail stores.

Apart from the cement industry, in the building materials industries price-fixing exists among manufacturers of paint and creosote. The wallpaper industry is largely dominated by a combine, though the recent decline in building has intensified competition. The London Brick Company produces a high proportion of the output of bricks. But there is considerable competition, especially in the North. A number of local rings exist in building and contracting, but, generally speaking, firms are small and competition obtains. Turner and Newhall controlling twenty-five subsidiaries are the leading producers of asbestos, and are members of an international cartel.

Mechanical engineering is widely diversified, and there are a number of important combines. Of these, Vickers Ltd., in general engineering and armaments, John Brown & Company owning substantial interests also in the iron and steel and coal industries, are examples. Textile machinery is dominated by a combine, Textile Machinery Manufacturers Ltd., in which most of the important firms are concerned. Price- and output-fixing associations exist in most of the Birmingham hardware trades. The manufacture of aircraft is divided among few firms, some of which are associated with engineering and motor manufacturing. The

Government's rearmament policy has recently expanded this section and affected its structure. The production of aluminium and copper is dominated by combines with large overseas interests. There are also international cartels regulating exports. Space does not permit the mention of all the combines and associations in these trades, but the whole engineering and light metal industry is subject to control by combines and associations in most of its sections.

The I.C.I. dominates the chemical industry, specially in the production of dyestuffs, explosives, salt and nitrogenous fertilisers. Associations exist for sulphate of ammonia and benzol. The British Oxygen Company is another large combine dominating its section of the industry. There is also a strong link between some of the metal and chemical industries : the British Metal Corporation, for example, is interested in National Fertilisers Ltd.

Lever Bros. and Unilever Ltd. produce most of the soap and margarine consumed in this country. Their interests extend on the extractive side to fishing, and on the distributive side to retailing of food products, through their own chain stores such as Maypole and Meadow Dairies. Their Empire interests are considerable and they are associated with the Dutch Company, Unilever N.V.

There is still some scope for competition in the china, pottery and glass industries, although associations or combines exist in china clay, sanitary fire-clay and plate- and sheet-glass manufacture.

The British Match Corporation through its subsidiaries, of which Bryant & May Ltd. is the most important, produces the greater part of the home output and is linked financially with some foreign concerns. There are a few small independent firms, and the imports from Belgium are a thorn in the side of the combine. In other industries, such as

rope manufacture and paper-making, small combines exist.

Imported raw materials are sometimes subject to control. Restriction schemes, cartels or gentlemen's agreements, exist in rubber, tea, sugar, tin, copper, lead, zinc and nickel ; much of the latter metal is controlled by the International Nickel Company of Canada with manufacturing interests in this country. Some of these restriction schemes, in rubber for example, have been introduced by co-operation of the Governments concerned, while others are purely voluntary agreements.

This is a mere catalogue, but the details are not radically different from those in the selected industries about to be discussed. There are, however, fewer schemes for the elimination of surplus capacity in the industries just mentioned, and in some cases the associations are loose and price control is not very stringent.

The cotton industry has two main sections—spinning and weaving. The finishing section treats other textiles besides cotton, so it will be discussed separately. Table 11 shows the size of establishments in these two sections. In spite of the growth of certain combines this is still an industry in which small firms, many of them private companies, are important.

The spinning industry can still further be subdivided into an American and Egyptian section, and again according to the thickness and type of yarn and according to the type of machinery used. There are a few combines and vertical intergration has been increasing, although it is still the exception and not the rule. Some of the weaving firms have adopted the policy of branding their goods and advertising their brand to the consumer, for example, the well-known Tootal products.

In the fine spinning branch (about 18 million spindles) there are several combines. The Fine Cotton

TABLE II

SIZE OF ESTABLISHMENTS IN THE COTTON INDUSTRY.

(Compiled from the *5th Census of Production* 1935. Part I.)

NUMBERS EMPLOYED.	SPINNING.				WEAVING.			
	Establishments.		Net Output.		Establishments.		Net Output.	
	No.	Per cent.	£'000.	Per cent.	No.	Per cent.	£'000.	Per cent.
11–99 .	278	33·9	1,650	8·1	466	44·1	3,093	15·1
100–299 .	350	42·7	6,995	34·6	452	42·8	9,647	47·1
300–749 .	166	20·3	7,669	38·0	127	12·0	5,760	28·1
Over 750 .	24	3·1	3,884	19·3	12	1·1	1,972	9·7
Total .	818	100	20,198	100	1,057	100	20,472	100

Spinners' and Doublers' Association was formed in 1898 out of 31 businesses. It has extended since then and now controls over three and a half million spindles. It is organised as a holding company. Combined Egyptian Mills, with 34 mills, controls over three million spindles. Crosses and Winkworth Consolidated Mills Ltd. was formed in 1920 and now controls about one and one-third million spindles. In the American section the Amalgamated Cotton Mills Trust owns over one million spindles. In 1929 the Lancashire Cotton Corporation was formed out of 143 firms, of which 80 were to be scrapped. To-day this combine controls over 40 companies and about five and a quarter million spindles.

The long depression after 1920 in cotton has changed conditions considerably. Over-capitalisation of mills during the boom of 1920 and the continued loss of markets lie behind the poor financial condition

of the industry. Its reaction to these changes has been slow. At first the industrial leaders thought that pre-war conditions would return by themselves. Then their main reaction appeared to be the vituperation of competition. Recently, however, strenuous efforts have been made to reduce surplus capacity and to control prices and output.

From 1920–26 the American section of the Federation of Master Cotton Spinners Associations organised short-time working to reduce production ; this failed. In 1926 the Federation introduced schedules of minimum prices ; this failed. In July 1926 the Cotton Yarn Association was formed with the members owning 15 out of the total of 19 million spindles. Prices and production quotas were fixed. This was successful at first, but an attempt to raise prices too much, together with under-cutting by outsiders and certain members, broke the Association. Years of depression and attempts to cut costs by reducing wages and increasing hours were followed by renewed attempts at price control.

In 1934 a price-fixing association was formed in the Coarse American Ring section. This was followed in 1936 and 1937 by other agreements in the American section and in the Egyptian mule-spinning section. The *Economist* reported in 1938 that about 55 per cent. of the cotton yarn produced was sold under such agreements. Eight and a half out of twenty million spindles in the American mule section were included in these agreements, and about eleven out of fifteen and a half million spindles in the Egyptian mule section. For a short time most of the two million Egyptian ring spindles and about four and a half million American ring spindles were also working under agreement, but this broke down in 1938. The largest of these agreements, the 42 wefts, with about four and a half million spindles was renewed in the spring of 1939,

but only after considerable negotiation. When the Cotton Industry Enabling Bill became law it was expected to prevent these numerous breakdowns in price-fixing machinery,[10] and a comprehensive price-fixing agreement was prepared. The war has meant a cessation of this legislation, but it clearly indicates the trend of events.

Conditions in the weaving section have not been quite so depressed. A number of firms have taken to producing mixed fabrics with rayon yarn or with mixed yarns. There are also certain special sections which have not felt the full effects of the decline in demand. Firms generally are small and competition prevails. There are, as noted above, a certain number of integrated concerns and these are growing in importance. They include not only spinner-weavers, but also merchant spinner-weavers. G. & R. Dewhurst Ltd. control nearly 100,000 spindles and 1500 looms. This firm has recently amalgamated with a shipping merchant, Merttens & Company Ltd. Other small amalgamations have recently occurred, but nothing like concentration of control exists. There appear to be no price-fixing associations, but there are reputed to be understandings in some of the specialised sections.

In the cotton industry generally, in spite of the few combines, the smaller firm retains its importance. And in the American and Egyptian ring sections, and in weaving, there is unfettered competition. The remaining sections of the spinning industry work under price agreements supported by the majority of the firms concerned. These agreements appear to be effective.

The woollen and worsted industry has been affected by decline in demand similar to the cotton industry, although again the effect has been unequal, and certain sections appear to have suffered more than others. The industry is very diversified and includes many

specialised sections such as carpet manufacture. The units in this industry are small as the following Table shows :

TABLE 12

SIZE OF ESTABLISHMENTS IN WOOLLEN AND WORSTED INDUSTRIES.

(Compiled from the *5th Census of Production* 1935. Part I.)

Numbers Employed.	Establishments.		Net Output.	
	No.	Per cent.	£'000.	Per cent.
11–99 . .	815	53·7	7,791	17·9
100–399 . .	594	39·1	20,995	48·2
400–749 . .	66	4·3	5,609	12·8
Over 750 . .	43	2·9	9,154	21·1
Totals .	1,518	100	43,549	100

The importance of the small and medium-sized firm is even greater than in the cotton industry ; and there is little market control organisation and few combines.

There are two sections in the yarn industry—woollen and worsted. In the former the wool is carded and then spun; in the latter there is a further process of combing to produce the tops from which worsted yarn is spun.

The wool-combing section is divided into commission combers, spinner combers and wool importer combers. Competition has been controlled on commission combing both by a combine and a price-fixing association. This section contains about 50 per cent. of the combs. Woolcombers Ltd. was formed in 1904 to take over Yorkshire Woolcombers' Association Ltd., itself an amalgamation of 40 firms.

The Woolcombing Employers' Federation, containing about 90 per cent. of the firms in the section, issued a tariff for commission combing. Recently a Commission Wool Combers' Association has been formed to carry out this price-fixing policy, leaving to the Federation its primary aims of collective bargaining and general trade negotiations. The Woolcombers' Mutual Association was formed in 1933 to buy up and scrap weak concerns in order to prevent price-cutting. This body has eliminated a considerable proportion of the surplus capacity, but there is no control over competition from the other sections not working on a commission basis.

There are a few small combines in worsted spinning, such as Illingworth, Morris & Company, formed in 1920 out of 10 firms. A terminable price-fixing association is in the process of organisation. Minimum conversion margins (tops into worsted yarn) are to be fixed, and a scheme for the reduction of surplus capacity is envisaged. This association is interesting because it will involve the support of the top makers. At present top prices are not standardised, and vary considerably. Top makers are to be asked to deposit each day a quotation for their standard makes. These quotations will be examined by a committee under conditions of secrecy and standard prices declared for different types. The conversion margin will be fixed on this. Any spinner who can obtain his tops at lower prices will be allowed to do so, but he will not be allowed to charge below the minimum price for the yarn obtained by adding the conversion margin to the standard price of tops.

In the remaining sections of the industry there are only a few combines, such as Paton & Baldwin's Ltd. (knitting-wool spinners) or Salts (Saltaire Ltd.), a vertical integration specialising in the working up of alpaca and mohair. A few other price-fixing associa-

tions exist such as Wool Carbonisers' Association, but, generally speaking, small-scale organisation and unfettered competition obtain.

The artificial silk industry is relatively new and has expanded rapidly in the last few years. Its main products are rayon yarn and staple fibre. The former is more important in this country, though the world production of staple fibre is equal to that of yarn. Viscose and acetate are the two main types of yarn produced, although the newest one, nylon, which is not yet manufactured in this country, is expected to make a good substitute for fine silk in hosiery.

The following table shows the size of establishments in the silk and artificial silk industries. It is unfortunately impossible to distinguish between the two sections.

TABLE 13

SIZE OF ESTABLISHMENTS IN SILK AND ARTIFICIAL SILK INDUSTRIES.

(Compiled from the *5th Census of Production*, 1935. Part I.)

Numbers Employed.	Establishments.		Net Output.	
	No.	Per cent.	£'000.	Per cent.
11–99 . .	183	55·0	1,307	9·2
100–399 . .	113	34·0	3,385	24·0
400–749 . .	18	5·5	1,357	9·6
Over 750 . .	19	5·5	8,050	57·2
Totals .	333	100	14,099	100

But artificial silk accounts for 65 per cent. of the net output of these trades, and for 55 per cent. of the workers. It is obvious from this and the information

in the table that the large rayon firms must produce the bulk of the output.

The Census of Production gives 24 establishments manufacturing artificial silk. There are only a few companies in the industry, and of these Courtaulds is by far the largest. British Celanese is also important, specialising in acetate yarn. The former firm is closely associated with foreign producers. It owns the America Viscose Company, which produces about 50 per cent. of the U.S.A. output. It is connected by an exchange of shares with Snia Viscosa of Italy (and before the war with Vereinigten Glanzstoff of Germany). There are subsidiary companies in Canada and certain continental countries. Both British Enka and British Bemberg are linked with continental concerns. Competition has not been very great in the Viscose yarn trades, because Courtaulds dominates the market, and the other firms are organised in the British Viscose Association. Price-fixing arrangements are maintained by the Association in co-operation with Courtaulds under an agreement made in May 1937. In acetate yarns production, competition has been more severe and has lasted longer. The two chief competitors were Courtaulds and British Celanese. The profits of both firms were reduced in 1937 and 1938. Early in 1939 these two firms came to an arrangement over outstanding differences, and the prices of both Viscose and acetate yarns were increased by about 2d. per pound.

The manufacture of yarn into fabrics and hosiery is complicated by the large number of mixed fabrics. Staple fibre is mixed with other fibre in spinning mixed yarns. Rayon yarn is mixed with cotton, wool and silk in the weaving of certain types of fabric. A considerable proportion of the yarn is made up on cotton looms. About 85 per cent. of the looms using rayon are cotton looms. But according to the Census of Production nearly 29 million lbs. of artificial silk yarn

were used in the cotton trade and 51 million lbs. in the silk and artificial trades. This mixed trade was to come under the Cotton Enabling Bill, and was opposed by the silk and rayon firms organised in the newly formed Rayon and Silk Association. The Artificial Silk Weavers' Association, on the other hand, supported the Bill and prepared a price-fixing scheme pending its introduction. The only price-fixing body at work in the manufacturing section before the war was the Milanese and Warp Fabric Association. Warp-knitted acetate yarns accounting for 65 per cent. of the output of acetate are covered by this agreement.

The textile finishing trades cover a large number of separate processes. The most important sections are dyeing and bleaching and printing. Cartels and combines are more common in these trades than in the other sections of the textile industry, except for rayon. Table 14 shows the existence of a very few large units amongst a very large number of small ones.

TABLE 14

SIZE OF ESTABLISHMENTS IN THE TEXTILE FINISHING INDUSTRY.

(Compiled from the *5th Census of Production*, 1935. Part I.)

Numbers Employed.	Establishments.		Net Output.	
	No.	Per cent.	£'000.	Per cent.
11–99 . .	557	65·0	4,803	26·2
100–399 . .	255	29·7	8,926	48·6
400–749 . .	35	4·1	3,010	16·4
Over 750 . .	10	1·2	1,612	8·8
Totals .	857	100	18,351	100

The Bleachers' Association Ltd. is a combination formed in 1900 out of about 78 firms. To-day it has a capital of over £6,000,000 and controls 88 firms. The Bradford Dyers' Association Ltd. was formed in 1898, and has 25 subsidiaries and a capital of about £6,000,000. This combine specialises in the dyeing of piece goods. The British Cotton and Wool Dyers is a combine in the yarn dyeing trade with 24 subsidiaries. The Calico Printers' Association Ltd. (formed in 1899) is a combine controlling about 80 per cent. of the trade. It has 72 subsidiaries and a capital of about £5,000,000 and employs 10,000 workers. These combines control a large proportion of the output in their respective sections. Their importance as compared with those in the cotton or woollen industries is probably due to the highly technical nature of the processes. Advantages can be obtained from the pooling of research, and saving in cost of equipment.

Each section has its cartel in addition to the combines ; the combines are members of these associations. The Bleaching Trade Advisory Board, consisting of most firms in the trade, followed up a loose price-fixing agreement with, in 1933, a strict system of prepaid fines and inspection of accounts. The Master Dyers' Committee (Yorkshire), formed out of the Bradford Dyers and four local associations, fixes prices in agreement with its members. In the cotton dyeing trade the Piece Dyers' Association controls prices and gives loyalty rebates to customers. The Federation of Calico Printers regulates prices and terms of trade ; it has attempted regulation by quotas.

In the early post-war depression in the textile trades, there were many complaints of excessive charges for finishing. These were investigated by the Balfour Committee on Industry and Trade. Their findings were inconclusive. More recently, whatever their charges, the textile finishing combines have experienced

with the other sections of the cotton and woollen industries a period of low profits.

The manufacture of motor vehicles is peculiarly suited to mass-production methods. Firms therefore are large, except in the production of luxury cars.

The production of certain types of motor vehicles in recent years is shown below :

TABLE 15

PRODUCTION OF MOTOR VEHICLES, 1929–38.

Year.	No. of Private Cars.	No. of Commercial Vehicles.
1929	182,347	65,458
1931	158,997	67,310
1933	220,779	65,508
1935	311,544	92,176
1938	389,633	118,116

The two trades are to some extent separate, though some of the leading makers are found in both.

Austin, Morris and Ford are the largest producers of low and medium-priced cars. Morris Motors is well on the way to becoming a large combine. M.G., Wolseley and Riley are Morris subsidiaries and are important in medium powered and priced cars. Rootes Ltd. is a well-known holding company controlling Hillman, Humber and S.T.D. Motors amongst others. A number of foreign makers have set up factories in England, of which Ford and General Motors (Vauxhall Cars) are examples.

The manufacture of commercial vehicles shows similar domination by a few large firms in the most common types—the medium-sized lorries. The types are the Bedford, Morris Commercial and the Fordson, which together form two-thirds of the total output of lorries. General Motors control the production of Bedford lorries. The heavy lorries account for about 14 per cent. of the output by quantity. Leyland, Dennis, A.E.C., are the leading makers, but other firms such as Albion, Thornycroft and Scammel are important. The remaining firms, including car manufacturers such as Rootes and Austin, produce 19 per cent. of the output.

Most of the important motor vehicle manufacturers are independent, but some are associated with outside concerns in other sections of mechanical engineering. There is a certain amount of integration in the industry. Fords have a steel-producing plant at Dagenham. Austins have formed a subsidiary company to produce steel.

Prices are fixed by the manufacturer individually, but competition is limited by their awareness of each others probable reactions to any changes in policy. Re-sale prices are controlled. The Motor Trades' Association works in conjunction with the Motor Agents' Association. Owing to the number of cars traded in part exchange, used car prices have to be fixed in order to control new prices. Agents who give unauthorised discounts or who give more than the fixed used-car allowance may be put on a "stop-list." Control is very difficult, and in the case of commercial vehicles there is reputed to be more evasion than observance of the lists.

The manufacture of electrical equipment cables, generators and other machinery, telegraph and telephone apparatus and lamps, to name the most important sections, is dominated by a few large concerns and

fairly rigidly controlled by associations. The size of establishments is shown in the following table :

TABLE 16

SIZE OF ESTABLISHMENTS IN ELECTRICAL MANUFACTURING.

(Compiled from the *4th Census of Production*, 1930. Part II.)

Numbers Employed.	Establishments.		Net Output.	
	No.	Per cent.	£'000.	Per cent.
11–99 . .	422	64·6	3,207	7·1
100–499 . .	151	23·1	7,632	17·0
500–999 . .	43	6·6	7,332	16·4
Over 1000 . .	37	5·7	26,662	59·5
Totals ..	653	100	44,833	100

As the figures show, the greater part of the net output comes from a few large firms. The small firms are mainly concentrated in the manufacture of wireless equipment and miscellaneous machinery. The importance of the combines is seen in the distribution of capital. To-day, 356 concerns have a capital of £153,000,000 ; 4 of these have a combined capital of over £40,000,000, and a further 25 companies have a capital of about £42,000,000.[11]

The Balfour Report listed seven such large concerns with a total capital of nearly £30,000,000. But since then a new combine, Associated Electric Industries, with a capital of about £15,500,000, has been formed. Two of the firms listed in the Balfour Report, Metropolitan-Vickers and the British Thomson-Houston Companies, are associated in the new combine. The others have extended their activities.

The acquisition of patent rights is an important element in the growth of these combines.

Vertical integration exists among the companies. A number are interested in the provision of power and in companies to finance electrical construction. A.E.I., through British Thomson-Houston, are connected with the Power Securities Corporation Ltd. which, through Balfour Beattie & Company Ltd., has considerable investments in electrical production and supply. The Balfour Beattie group includes such companies as the Lancashire Electric Light and Power, the Metropolitan Electric Supply Company; there are more than 30 subsidiaries in this group.[12]

The English Electric Company is interested in the Power and Traction Finance Company, together with certain general engineering firms. There is a close link between the manufacture of electrical equipment, the contracting for and financing of the production and supply of current. The most powerful combine in manufacture is associated with one of the most powerful groups in supply of current. The international interests of the different concerns are widespread. A.E.I. is connected with firms in the Dominions and U.S.A. The General Electric Company is concerned with supply companies in both Empire and foreign countries.

But partial monopoly is not enough. Associations to control prices and output exist as well. The British Electrical and Allied Manufacturers' Association represents the industry generally. Price-fixing is the work of separate associations for each section of the trade.

The Cable Makers' Association has twenty-one members. It fixes prices, and loyalty rebates are given. There are some outside firms which in the past have followed the cartel's lead in prices. The possibility of a falling-off in demand leading to something like a

price war is recognised in the industry. The cartel is powerful and most of the leading makers—Calendars, Henleys, British Insulated Cables and Crompton Parkinson—are members. Recently a modern outside firm, Ismay Cables, a subsidiary of Ismay Industries, has been bought and closed down. The purchaser is believed to be a member of the Association, but some secrecy surrounds the transaction.[13] The Electric Lamp Manufacturers' Association controls the retail prices of the different types and grades of lamps and wireless valves. Price-cutting is prevented by boycotts of offending dealers, and competition from outsiders is hampered by discounts to dealers graduated according to the proportion of their turnover taken from members of the Association. Patent rights and licences are exchanged on payment of royalties.[14]

Recently the industry has expanded considerably, and the problems of control are therefore the problems of simple price-fixing and not the problems of output regulation. With the grid system practically completed, there is not likely to be any great expansion of demand in the cable-making section, and the future may see the Cable Makers' Association attempting such devices as the trade share and output restrictions. Expansion of the market may, however, continue for a time in other sections. The use of electrical power is not as great in this country as in others, but it should develop considerably now that the grid system is standardising frequencies and reducing costs.

The iron and steel industry is difficult to define. The Census of Production covers a multitude of different trades including cutlery and hardware. Here we are concerned with the heavy sections and certain specialised sections, namely, the field covered by the Import Duties Advisory Committee in their reports,[15] which is almost identical with that covered by the Iron and Steel Federation. These sections account for 66 per cent.

of the total net output of the wider field of the Census of Production.

The basic product is pig-iron, the larger part of which, together with scrap steel, is converted into steel ingots or steel castings. The steel ingots are converted into billets, blooms and slabs, in their turn converted by the forging press into wheels, axles, etc., or by the finishing mill into plates, sheets, rails, girders, wire rods, etc. Some of the plates are the raw material for the important tinplate industry. The rest of the pig-iron is converted into castings such as iron sections, rods, etc.

The organisation of the industry shows certain striking features : the existence of large quasi-monopolies in different districts and sections of the industry ; the interlocking interests between these large concerns ; the development of vertical integration ; and the existence of price-fixing and other associations.

The Balfour Committee gave details of ten large groups accounting for some 60 per cent. of the steel capacity and nearly 50 per cent. of pig-iron capacity. Considerable developments have taken place recently. Two of the groups, Dorman Long and Bolchow Vaughan, have amalgamated and the merger has absorbed other smaller concerns. Richard Thomas, another of the ten, has acquired most of the assets of the Ebbw Vale Steel, Iron and Coal Company which was also one of the giants. The ten are thus reduced to eight. The iron- and steel-producing subsidiary of another of those mentioned is Colvilles Ltd., which has practically a monopoly in Scotland, except for foundry pig-iron, which is largely controlled by Allied Iron Founders. The Scottish Iron and Steel Company is the only independent firm of any size, and its capital of about £750,000 is small compared with Colvilles' £5,900,000. It has, however, recently been strengthened by an amalgamation with W. Baird & Company.

While the independent producers in Lancashire have been absorbed by the Lancashire Steel Corporation. The position can be summarised as follows : In the north-east, Dorman Long are a semi-monopoly in a wide range of products. The other big independent firm, Consett Iron, specialises rather on ship and boiler plates. In South Wales the heavy industry is practically monopolised by the British (Guest, Keen & Baldwins) Iron and Steel Company. In the tinplate section Richard Thomas has over 40 per cent. of the capacity,[16] and also a considerable iron and steel production. There are several other important producers of tinplate, and galvanised sheets, and other special products. In Scotland, except for foundry iron, there are only two important firms and one of these, Colvilles, is by far the larger. The United Steel Companies control much of the Lincolnshire and West Coast, though there are important specialised firms in both areas—Firth & Brown for steel castings, Millem & Askom Hematite and Barrow Hematite for pig-iron. In the other districts firms are more numerous, but Stewarts and Lloyds, newly merged into Stanton Coal, Iron and Tube Investments Ltd., dominate the tube industry : Stavely and Sheepbridge are two large coal and iron firms mainly concentrating on iron castings. The English Steel Corporation, a subsidiary of Vickers, is an important producer of steel for engineering.

The interlocking of interests between a number of these concerns is far reaching. Baldwins and Guest, Keen & Nettlefold, have co-ordinated their heavy steel interests in the British (Guest, Keen & Baldwins) Iron and Steel Company. Colvilles have an exclusive right to supply Harland & Wolff Ltd. and Lithgows Ltd. with their shipbuilding steel requirements for a number of years ; the same company has acquired Stewarts & Lloyds' Scottish and export plate business for a period, and has mutual trading arrangements with William

Beardmore, and agreements about types of pig-iron production with Barrow Hematite. Firth & Brown and the English Steel Corporation control Firth Vickers Stainless Steel Ltd., and Stewarts & Lloyds have been closely associated with Tube Investments. Recently loans to Richard Thomas by a banking consortium have resulted in a nomination of a Committee of Control for that concern for as long as the loans are outstanding. Steel interests as well as financial are represented on the committee, and two directors from other steel interests have been appointed to the Board of Richard Thomas. The Bankers Industrial Development Corporation and the Securities Management Trust controls the Lancashire Steel Corporation and has some control in Richard Thomas, John Summers [17] and Stewarts & Lloyds.

This picture can be completed by a few statistics. According to the Import Duties Advisory Committee, 37 firms produce 86 per cent. of the output. Table 17 on page 70 shows the size of establishments in certain sections of the industry. Some of the large firms are the same in each section. It must also be remembered that some of these firms are not, strictly speaking, competitors, but are integrated concerns producing largely for their own use.

These integrations are very important in iron and steel. The Balfour Committee estimated that iron manufacturers own mines from which they supply about 62 per cent. of their coal, and about 55 per cent. of their coke. Recently the process of integration has gone much further. In 1929, steel manufacturers controlled about 65 per cent. of the pig-iron they used, and to-day over 70 per cent. Some of the mergers discussed above were with firms in other stages of production. In addition to controlling supplies of raw materials, some steel firms control or are controlled by firms in the finishing industries. Harland & Wolff Ltd., shipbuilders, control Colvilles. John Brown and Vickers

TABLE 17

SIZE OF ESTABLISHMENTS IN CERTAIN SECTIONS OF THE IRON AND STEEL INDUSTRY, 1930.

(Compiled from the *4th Census of Production*, 1930. Part II.)

Numbers Employed.	Establishments.		Net Output.	
	No.	Per cent.	£'000.	Per cent.
BLAST FURNACES:				
11–99 . .	12	17·7	220	5·6
100–299 . .	29	42·6	985	24·9
300–499 . .	18	26·5	1,214	30·8
500 and over .	9	13·2	1,529	38·7
Totals .	68	100	3,948	100
SMELTING & ROLLING:				
11–99 . .	106	34·9	921	3·7
100–499 . .	119	39·3	5,679	22·2
500–999 . .	39	12·9	5,194	20·1
1000 and over .	39	12·9	13,783	54·0
Totals .	303	100	25,577	100
TINPLATE:				
11–199 . .	19	27·9	542	10·6
200–399 . .	27	39·7	1,477	29·0
400–749 . .	17	25·0	1,966	38·6
750 and over .	5	7·4	1,103	21·8
Totals .	68	100	5,088	100

are really engineering concerns, but they have steel interests—the former in Firth & Brown, the latter in the English Steel Corporation. Guest, Keen & Nettlefolds was an amalgamation of iron and steel producers with firms manufacturing nuts, bolts and screws. It is unnecessary to multiply examples.

With such a structure, price-fixing associations

would appear to be unnecessary, but they have existed in most sections for some time. The industry was depressed until rearmament stimulated demand, and competition between the big firms was fierce at times. The tariff and the Import Duties Advisory Committee have strengthened these sectional associations and stimulated central organisation. The Iron and Steel Federation has a membership of individual firms and affiliated associations. The association in foundry pig-iron is not affiliated, as its members fear the powerful steel and pig-iron producers. The tube section is unorganised and remains deaf to the appeals of the Import Duties Advisory Committee. The recently amalgamated and powerful firms of Stewarts & Lloyds and the Stanton Coal, Iron and Tube Investments Ltd. are not members of the Federation. The affiliated associations [18] fix prices and in some cases regulate output and pool sales. Prices must be submitted to the Federation for approval. Rebates may be given in special cases to assist the export trade in finished goods. The Committee has tried to see that the cartel regulations are not unduly restrictive.[19] A number of these associations are members of international cartels. These exist in steel rails, tinplate and tubes.[20]

The Federation negotiated an agreement with the International Steel Cartel for limitation of their exports to this country and for division of the other markets. Total and sectional import tonnages were fixed, and licensed imports from the countries in the cartel were admitted at a lower rate of duty. This, of course, has been modified since the war.

The British Iron and Steel Corporation is the trading organ of the Federation. It centralises purchases from Cartel countries and exports heavy steel, replacing in this a co-operative selling agency established in 1929. There are other co-operative export schemes in tinplate and galvanised sheets.

The Federation has recently attempted to control extensions of plant, and requires members to consult it before deciding on expansion.

This, then, is the organisation of the steel industry. There are a few integrated concerns with a fringe of smaller firms mainly producing for a local or special market. A complete cartel organisation in each section, with a central body whose power is likely to increase, supported as it is by the Import Duties Advisory Committee.

The preponderance of large establishments in the cement industry is shown in the following table :

TABLE 18

SIZE OF ESTABLISHMENTS IN THE CEMENT INDUSTRY.

(Compiled from the *4th Census of Production*, 1930. Part IV.)

Numbers Employed.	Establishments.		Net Output.	
	No.	Per cent.	£'000.	Per cent.
11–99 . .	37	50·7	591	12·6
100–299 . .	26	35·6	1,858	39·0
Over 300 . .	10	13·7	2,309	48·4
Totals .	73	100	4,758	100

The industry was combined at an early period. The Associated Portland Cement Manufacturers Ltd. was formed out of some thirty firms in 1900 and controlled 45 per cent. of the output. In 1912 the combine formed a subsidiary British Portland Cement Manufacturers Ltd., a merger of thirty-three of its competitors. Together the group produced about 75 per cent. of

the output. The industry has expanded rapidly since then and other large concerns have arisen, some of which have recently been linked with the Associated Portland Cement Manufacturers. In 1931, Allied Cement Manufacturers' Ltd., marketing under the Red Triangle brand, was acquired by the combine. The Alpha Cement Company was acquired in 1938, and the interests of the combine and the Tunnel Cement Company closely linked together by the exchange of shares. The Portland Cement and Tunnel group now control about 80 per cent. of the capacity of the industry. It is interesting to note that this is only slightly higher than the proportion controlled by the combine as early as 1912. The industry has been an expanding one, production increased from 1924 to 1935 by over 100 per cent. There has been, therefore, plenty of room for competitors. The recent series of amalgamations have undoubtedly been influenced by severe competition and the possibility of a falling off in demand owing to a decline in the building industry.

Price-fixing associations have existed, but there have been periods of aggressive price-cutting. The Cement Makers' Federation was formed in 1918 out of three local price-fixing associations. Minimum wholesale prices have been fixed and re-sale prices maintained. Prices are usually based on a zoned delivery basis. A more rigid price agreement was concluded in 1928, and in 1934 output quotas were also allocated. This coincided with a bout of price-cutting which lowered the average price of cement per ton from 44·76 shillings in 1933 to 39·10 shillings in 1936. The output quota was dropped in 1937, but negotiations for its resumption are going on. "The measures which have now been taken should stabilise production capacity at its present level, and secure for all manufacturers a basic proportion of the available tonnage." [21]

The Federation, which includes almost 100 per cent. of the firms, together with the combine, appears to be in a powerful position. During 1938 it was reported that outside interests were considering the erection of a plant in Kent and Devon. This plan was dropped, apparently owing to the opposition of existing makers and the threat of price-cutting.[22]

Another organisation in the trade is the Cement Marketing Company. This is the marketing organisation for Associated Portland Cement Manufacturers and British Portland Cement. It is not a profit-making concern, but returns to the plant supplying it prices received, less cost of selling. It has been stated that arrangements are being made for interchange of business between the various works of members of the Federation in order to minimise transport.

The industry has shown both the strength and weakness of combination in the last few years. New competition has been prevented, and the new cartel arrangements may increase efficiency in transport. On the other hand, the combine has only been able to maintain its proportion of the industry. The price-fixing association has not been able to prevent bouts of price-cutting at certain periods.

The last of the industries to be studied is grain milling. Demand for the products is relatively stable. Consumption of flour per head is actually declining, though the market for some of the other products—feeding-stuffs, etc.—is capable of expansion. Concentration of output and schemes for controlling output and eliminating surplus plant are outstanding features of the organisation. The size of establishments is shown in Table 19.

The numerical predominance of the smaller establishment is due partly to the inclusion in the census of firms milling grain other than wheat, and to a number of small inland mills, but even so, 57 of the mills account

for two-thirds of the output, while 93 mills—the port mills—handle three-quarters of the wheat flour, and one firm alone, Ranks Ltd., accounts for nearly a third of the output. The other important concern is Spillers Ltd., though McDougalls are important in certain special types of trade. The dominance of those two firms, Ranks and Spillers, is increasing. Spillers have recently absorbed E. C. Robinson of Sunderland, and

TABLE 19

SIZE OF ESTABLISHMENTS IN GRAIN MILLING.

(Compiled from the *4th Census of Production*, 1930. Part III.)

Numbers Employed.	Establishments.		Net Output.	
	No.	Per cent.	£'000.	Per cent.
11–99 . .	347	85·9	3,363	37·1
100–399 . .	50	12·4	3,722	40·9
Over 400 . .	7	1·7	1,997	22·0
Totals .	404	100	9,082	100

Hosegood Industries Ltd. and Joseph Ranks have absorbed John Greenwood.

The Millers' Mutual Association includes most of the firms except the Co-operative Societies. Its activities cover restriction of production by a quota system with fines and compensation payments, and allocation of markets on a regional basis. The Purchase Finance Company is an organisation to buy up mills and scrap them ; it is controlled by the seven leading firms in the industry, each owning one of the seven issued shares. Price control is not part of the work of these organisations but, " There is little question that the large millers

clearly understand one another on the matter of price policy, and several of the regional associations seem to be exercising a definite influence." [23]

It is interesting to compare the position in this industry with that in cement. Both are dominated by large firms, but while the one was faced with an expanding market, grain milling had, according to the Liberal Industrial Enquiry, an excess capacity of 30 per cent. and a long-term decline in the *per caput* consumption of flour. Reorganisation has therefore been thrust upon the milling industry, and its ability to carry this out without State assistance is due to the influence of the large firms. These firms have extended their scope considerably by acquiring rival mills. They have not been faced with competition by new entrants as the combine in the cement industry has, because profit conditions for over a decade since 1918 were not sufficiently attractive. Further, the preponderance of imported wheat in British consumption has increased the influence of the large firms by giving the port mills a competitive advantage. The organisations in the industry have hastened somewhat the decline in the inland mill. They have, however, tended to concentrate production on large and efficient mills. Average costs must have been reduced considerably, although information is not available to show whether they have been passed on to the consumer.

NOTES

[1] Employers' federations, trade associations, etc., with collective bargaining, as their main activity are not discussed in this chapter.

[2] See discussion in *Census of Production*, 1930, final report, part v., chap. ii.

[3] See chap. vii. for examples.

[4] A more usual distinction is between terminable and permanent combinations, but this appears to have little real meaning, as the objects and methods are the same in both types. Some cartels are more permanent than some mergers, yet the methods of control are different, and the difference largely lies in the financial and legal structure. Nor is independence any criterion, a member in a cartel may have less independence than a company in which a combine has acquired interests.

[5] We are not here concerned with Employers' Federations established for negotiations with trade unions, trade associations, for the pooling or conducting research or Chambers of Commerce.

[6] *Report of Committee on Trusts*, 1919, cd. 9236, p. 17.

[7] *Economist*, 6th March 1937.

[8] There is hardly an industry without some form of price-fixing association, and there are many in which there have been very considerable amalgamations.

[9] See chap iv., *Statutory Organisation*.

[10] The agreement in the carded yarns in the Egyptian Mule Spinning collapsed owing to outside competition, and prices immediately fell by up to 1d. a pound. *Manchester Guardian*, 13th July 1939.

[11] Compiled from Ganke's *Manual of Electrical Undertakings*.

[12] See *Economist*, 21st January 1933, 29th April 1933 and 19th June 1937.

[13] *Daily Herald*, 11th January 1939.

[14] There are also associations in the manufacture of telephone equipment and accumulators.

[15] " Pig iron and ferro-alloys; ingot steel and rolled steel products; wrought iron; special steels; steel casting; forgings; sheets; tinplates; tubes; structural steel and wire." *Report of Import Duties Advisory Committee*, op. cit., p. 7.

[16] Before the erection of the Ebbw Vale mills, five of the smaller firms have just amalgamated into a concern with a capital of £1,000,000.

[17] The new continuous American type ship mill, being erected by John Summers & Sons Ltd., is partly financed by the Bankers' Industrial Development Corporation and the United Steel Company.

[18] There are thirty-three associations covering heavy steel; billets; pig iron; bolts, nuts and rivets; steel bars; constructional steel; special steels; wrought iron; casting; wire; rails, tyres and axles and tinplate.

Import Advisory Committee, *op. cit.* Appendix.

Many of these associations were in existence even before the war. Macrosty, in *The Trust Movement in British Industry*, mentions several of them. Fitzgerald, in *Industrial Combination in England*, mentions eleven of the thirty-three in the same form as they are to-day. He mentions another twenty-nine associations, but about eight of these are in sections outside the scope of the Iron and Steel Federation.

[19] For example, quota regulations may penalise new entrants to the industry. But see the verbal acrobatics in *Import Duties Advisory Committee Report*, op. cit., pp. 59–60.

[20] The tube cartel collapsed in 1935, but a gentlemen's agreement still exists.

[21] Chairman of Eastwoods Humber Cement Ltd., at second ordinary general meeting, 28th April 1939.

[22] *Economist*, 3rd December 1938 and 11th February 1939.

[23] Lucas, *Industrial Reconstruction and The Control of Competition*, pp. 140–141.

CHAPTER IV

STATUTORY ORGANISATION

ALTHOUGH government interference is not new in this country, marked changes have taken place recently in the spheres affected by such interference and in the methods adopted. There is a clear demarcation between the older policy applied to the so-called public utilities and the new compulsory organisation of certain industries.

In public utility policy, two principles can be discovered, though they were not consciously used. The early interference was directed to protecting the public against exploitation by local monopolies. In gas, water and railways, experience showed that competition could not give the protection to the consumer that theoretically it should have done. Competition between gas companies was always slight. The burden of duplicating capital equipment and the confusion of several companies needing to dig up the roads at different times very soon prevented its extension. A period of competition in the water supply of London was followed by agreements between companies as to districts supplied. In other districts, competition was even more restricted. Monopoly in these services was, and is, essential to efficient and economic management, and public control was the method adopted to protect the consumer from exploitation.

These companies had to obtain parliamentary sanction for compulsory powers. These were needed for right to lay gas and water mains under the streets, for purchase of land and rights of way. The private

legislation gave Parliament its opportunity to impose conditions. A series of gas and waterworks clauses Acts defined model clauses for incorporation in the private Bills. In the case of gas and water supply, dividends were limited or were linked with charges so that they could only be increased when prices were lowered. The electric supply companies operated under somewhat similar conditions.[1] Parliamentary interference with the railways first aimed at preserving competition.[2] But amalgamations and working arrangements increased in spite of Parliament's policy. The next step was to protect the public directly from unfairness or discrimination in charges through the Railway and Canal Commission. Passenger fares were regulated in each Company's special Act and, from 1888 onwards, maximum freight rates were fixed.

The second principle of promoting efficiency lies behind more recent examples of public utility regulation. This principle was not thought out beforehand and then applied ; but it can be discerned in the actual cases which were always treated in an empirical way. A series of Acts were passed regulating railways, electricity and certain harbours, and all show signs of concern for efficiency.

The efficiency was not always a matter of economics. Public safety was a factor in the unification of the Liverpool and Birkenhead Docks under the Mersey Docks and Harbour Board in 1857. But competitive conditions were seriously hampering the utility of the Port of London at the end of last century. Competition from lighters was ruining the dock companies whose warehouse facilities were necessary. More important, there was no uniform dredging policy and the river was silting up. The Port of London Authority was formed in 1908. It took over the assets of dock and harbour companies and pays a fixed rate of interest on its capital. This has varied from 3 to $5\frac{1}{2}$ per

cent. according to market conditions at the time of issue of the stock. Control is vested in a Board partly elected by users and partly nominated by the ministers concerned. The Act was amended in 1920, but the position is essentially unchanged. This semi-public control has not prevented expansion. Over £15,000,000 has been spent on improvements, including new docks such as at Tilbury.[3]

In 1921 over one hundred railway companies were amalgamated into the four main line companies, the L.M.S., L.N.E.R., G.W.R. and the S.R. The only railways not included were some local lines, mostly narrow gauge, a few jointly owned lines of some importance and suburban electric railways, mostly in London. The aim of amalgamation was to increase efficiency. Standardisation was necessary in rolling stock, much of which required renewing. Improvements in administration were also expected. Rates are controlled under this measure by the Railway Rates Tribunal. A standard revenue was laid down. This was not a guaranteed but a maximum revenue, though it was expected to be reached.

A further development in the co-ordination of transport was the London Passenger Transport Act of 1933. All omnibus, tram and underground services were amalgamated into one concern, the L.P.T.B. Taxis, private hire vehicles and the suburban lines of the main line railway companies were excluded. The suburban line fares are pooled with the Board's passenger fares and shared between the Board and the four railway companies.[4] Stock in the new undertaking was given in exchange for the assets of the various bus, tram and underground companies. There are no controlling ordinary shares.[5] The aim was to improve efficiency in preventing any unnecessary duplication of services with consequent congestion of the streets. The limitation of competition as such was a further

factor. Monopoly profits are impossible as the Board is at present constituted, but fear of a reduction in the profits of then existing companies, owing to increased competition, made the Act more easily acceptable. The removal of competition, as in itself an evil, was a secondary consideration to the improvement of service in the passing of the Act.

The Central Electricity Board is the most striking example of the pursuit of efficiency. The small scale of electrical development in this country, compared with other industrial States after the war, gave an impetus to public action. Electricity Commissioners were set up under an Act of 1919. Their powers included sanctioning supply companies and the establishing and extension of plant. They also exercised some control over prices. They are the outcome of an Act of 1919 which aimed at establishing control over generation. The Act was shorn of compulsory powers by the House of Lords.

The Central Electricity Board was set up in 1926 to operate the Grid system and standardise frequencies. The Grid system, now completed, consists of about 4000 miles of high-tension transmission cables, linking over 144 selected generation stations. The Board controls but does not own these stations ; it buys and resells their output to authorised suppliers. A number of non-selected stations still exist. There is a uniform tariff for each of eight areas. This is a two-part tariff, a fixed charge based on the maximum load in certain months and a charge per unit purchased. The charges are based on a sliding scale so that the price falls as the number of units taken increase. This possibly gives an advantage to large suppliers and hampers small-scale undertakings in scattered areas. But generally the Board's tariff policy has encouraged the use of electricity. Owners of selected stations have, however, several options as to methods of purchase. In actual practice

they can buy electricity at a lower rate than the Grid tariff and therefore can supply electricity cheaper than other distributors.

The Board has powers to borrow money to finance the construction of transmission lines and the change over to a standardised frequency. They borrowed about £58,000,000 at an average rate of interest of $4\frac{3}{4}$ per cent. Unfortunately the earliest date of redemption is 1950, so the capital charges are high in relation to current rates of interest.

The Board is not a retail distributor. This is undertaken by local authorities and private companies acting under orders of Electricity Commissioners, or special Acts of Parliament. Retail charges vary enormously from district to district and the costs of retail distribution are still high. The organisation of distribution is still unsatisfactory, but the Central Electricity Board has lowered the costs of generating current.

The State has also assisted the extension of communications in the interests of efficiency. In 1869 the Post Office, a long established State trading organisation, bought out the private telegraph companies at a cost of £8,000,000, four times the market value of their assets. The telephone system developed about ten years later, and the Post Office acquired a monopoly under a legal ruling that the telephone was a telegraph, in the meaning of the Act of 1869. Exchanges were at first operated by private companies on lease from the Post Office, but these were taken over by the State in 1911. The wireless system has been developed by the State through the B.B.C., a public corporation controlling programme broadcasting, and through the Post Office in beam wireless stations. In 1928 these were leased to Imperial and International Communications Ltd., a firm which is now Cable and Wireless Ltd. This firm took over the assets of the cable com-

panies and is controlled by Cable and Wireless (Holding) with a capital of about £23,000,000. In 1938 payment for the lease of the beam wireless stations was abolished, and in return the cable companies surrendered about 8·6 per cent. of their equities to the Government. This firm is allowed to earn a standard revenue of 4 per cent. Anything above this is divided in equal proportions between reduction in charges, employees and shareholders.

Although State interference in the past aimed at the protection of the public where essential services were subject to monopolistic control, and the improvement and efficiency in certain public services, tenderness was felt for vested interests.

The boom year—1913—was used to measure standard revenue for the railways, for example, and generating stations were given very favourable terms for the purchase of electricity from the Grid. In the group we are going to consider the tenderness for vested interests developed into a "grande passion." The desire for improvement in efficiency still remains, but it is dwarfed into insignificance by the wish to increase the profitability of the industry.

The types and methods of State interference are not easy to classify. The hotchpotch of different types of activity cannot be called a thought-out policy. But, nevertheless, it is possible to classify the different methods and so reduce the work of a succession of Governments to some sort of a scheme. The following main lines of activity can be found : (*a*) stimulus to new industries, (*b*) compulsory cartelisation of industries, (*c*) compulsory so-called rationalisation of industry. In addition there are a number of financial stimulants to all sorts of trades : loans guaranteed by the Treasury under the Railway Finance Corporation, under the London Electric Transport Finance Company,[6] under the Export Credits Act and under the Special Areas

Acts are examples. Open subsidies to shipping and beef, concealed to wheat, are other examples which are not discussed in this chapter except in so far as they involve the reorganisation of industry.

A number of new industries have been stimulated by State action since the war, the most important of which are the beet-sugar industry, civil aviation and the manufacture of dyestuffs. Military more than economic factors lie behind this policy. The sugar policy is directed partly towards increased self-sufficiency and partly towards provision of materials for self-sufficiency, *i.e.* the keeping of land in good condition and the employment of skilled arable farm workers. Dyestuffs production is an important chemical industry, easily adapted for war purposes. Civil aviation provides a reserve of trained pilots and of machines that will be useful in time of war. Except in the dyestuff industry, Government assistance has resulted in compulsory reorganisation.

Zinc is an interesting case of indirect stimulus. The import duty was increased this year (1939) from 12s. 6d. to 30s. a ton. Empire zinc is admitted free. Empire producers have to pay 10s. of the 17s. 6d. increased preference to the sole British Zinc producing firm. Arrangements are made for this firm and Empire producers to pay into a pool to provide a drawback of 17s. 6d. a ton on exports of manufactured zinc goods.

The production of sugar beet before 1923 was negligible. Since that time there have been a number of very varied stimuli to the industry, the most important of which, up to the outbreak of war, are outlined below.

In 1922 the excise duty on home-grown sugar was remitted. In 1925 the British Sugar (Subsidy) Act provided for the payment of a subsidy on a diminishing scale on white sugar and molasses (the subsidy on

molasses was withdrawn later), produced from home-grown crops of sugar beet in Great Britain during the years 1924 to 1933. The subsidy was then continued for another two years. At the same time as the Act was passed the excise duty was reimposed at the imperial preferential rate, thus giving the industry an additional advantage over foreign refined sugar imported into this country. The Finance Act of 1928 introduced different rates of assistance and excise duties which had the effect of discouraging the importation of foreign refined sugar. The same Act increased the duty advantage on home-grown refined sugar to 5s. 10d. a cwt., and in 1932 this was again increased to 7s. 1d.

The payment of assistance has been governed since 1936 by the Sugar Industry (Reorganisation) Act, which was passed after an investigation by the Greene Committee. The Act provided for the amalgamation of the fifteen beet-sugar manufacturing companies, owning eighteen sugar-beet factories, into the British Sugar Corporation Limited. This was arranged by voluntary agreement. The fixed factory assets of the companies being purchased for shares in the Corporation, with a nominal value of £5,000,000. The Government also appointed three Directors of the Corporation, one to be Chairman with the power to exercise a suspensory veto on matters of public interest, pending reference to the Government.

The time limit on financial assistance to be given to the industry was removed before the war. Such assistance, however, was not to be paid on more than a standard quantity equal to 560,000 tons of white sugar in each year. (This limit is now removed for the war period.) The Minister of Agriculture and Fisheries, after consultation with the independent Sugar Commission set up under the Act, and with the consent of the Treasury, fixed the rate of subsidy. This was determined each year, as if, having regard to the time that

has elapsed since the amalgamation of the companies into the Corporation, all practicable economies resulting from that amalgamation had been effected, and as if the highest practicable standard of efficiency had been attained by the Corporation. The Minister also entered into an Incentive Agreement by which a proportion of the saving on the cost of assistance attributable to economies by the Corporation is assured for the benefit of the Corporation.

Among its duties the Sugar Commission had to keep under review the growing of sugar beet, the manufacturing, refining, marketing and consumption of sugar in the United Kingdom, and to advise the Minister and the Treasury, should they so require, on matters connected with the industry. The Commission also had specific duties such as those connected with the determination of the terms and conditions of the contract for beet, if agreement were not reached between the Corporation and representatives of the sugar-beet growers. It also fixed the maximum quantity of sugar beet which the Corporation might buy at a figure likely to produce the standard quantity of 560,000 tons of white sugar. Among the remaining duties were those connected with control over the Corporation's arrangements for the production and marketing of white sugar, the keeping of a register of refiners, the preparation and administration of a scheme of research and education and the presentation of an annual report to the Minister, to be laid before Parliament.[7]

As a consequence of the various forms of assistance given to the industry, the output has increased from 13,000 tons of white sugar from 17,000 acres of sugar beet in 1923 to 615,000 tons from 404,000 acres in 1934. Since then the acreage has declined. Nevertheless, the eighteen factories produce about 420,000 tons of white sugar from about 3,000,000 tons of sugar beet annually. These factories also refine imported sugar in

the off-seasons. Thus the net result of the Finance Act of 1928 is, so far as refined sugar is concerned, that practically none is imported and there has been a consequent increase in refining in this country.

The State has given subsidies to civil aviation, and has interfered with the organisation of the companies. The merger that formed the Imperial Airways was brought about through the influence of the Government. Recently a new State-controlled merger of that company and British Airways has been formed.

A loan was granted to British Dyestuffs Limited in 1914, and the British Dyestuffs Corporation was formed in 1918 out of this company and an independent firm. The Government held £1,700,000 in shares and appointed two directors. Imports were prohibited in 1922 except under licence from the Board of Trade. The Corporation was taken over in 1925 by the I.C.I. and the State holding bought out. The import restrictions were still continued. The textile dyeing firms have answered the criticisms of their charges by complaining of the high prices caused by these restrictions.

These measures and others, such as the Safeguarding Duties and the excise duty preference for oil from coal, were introduced more for military than economic reasons. The amalgamations have been introduced more in the interests of efficiency than of high profits, and they do not show the same desire to restrict competition that more recent measures have shown. Coal and certain sections of agriculture have been organised into cartels or their equivalent. Tramp-shipping has been influenced by a subsidy and iron and steel by the tariff to organise into some type of cartel. Before the war a Bill was presented to Parliament to introduce similar measures in the cotton industry. Schemes for rationalisation mainly with the object of reducing capacity have affected the coal and cotton industries. These various types of control will be

discussed industry by industry. Their general significance will be treated in a later chapter.

Under Part I. of the Coal Mines Act of 1930 the production, prices and sale of coal is regulated by schemes. A list of provisions for inclusion in these schemes are included in the Act, but detail may be amended by order of the Board of Trade. This method of amendment has been widely used and the schemes vary from district to district. Only the broad outlines can be described here.

The Central Scheme set up a council representative of the coal owners of all districts. The council's duty is to determine the output of coal to be permitted in any period. This total output is allocated between districts. Fines are imposed on any district exceeding its allocation. In 1934 an amendment to the scheme separated home supply from export supply. Each district is now given its maximum output, its home output and its export output. The council has a growing control over prices. It can investigate complaints from districts about competing districts' prices and make recommendations.

Under the district schemes, boards are elected by the coal owners in the district. They determine a standard tonnage for each mine, based on the proportion of its production to the total output of the district in recent years. The district allocation is divided amongst the mines by fixing a quota of the standard tonnage so that the total quota output does not exceed the district allocation made by the Central Council.

Fines are levied for exceeding the quota and quotas can be bought and sold. Minimum prices are fixed by the boards for each class of coal and fines are exacted for breach of these prices. In 1936 further amendments were made and district selling schemes were introduced. Each mine was given a fixed share of the trade of the district called the " Trade Share " and provisions were

made for compensation for deficiency and fines for excess sales.[8] This trade share is distinct from the output quota. The former is a proportion and the latter is a fixed quantity. Output has generally been lower than the permitted output, so quotas have rarely been exceeded. The trade share, being a proportion, works however low the output may fall. Apart from these general provisions the selling schemes can be classified into three groups :

(*a*) Central Selling Schemes. In these the district Board buys the whole output of coal in the district that would be offered for sale.[9] It undertakes the marketing of the coal and pools the profits.

(*b*) Supervised Sales. Colliery companies continue selling individually as in the past, but all sales must be made with the knowledge and approval of the district Board. This is the most usual method in the larger district.

(*c*) Appointed Agents. All sales are made through selected agents working under the supervision of the boards. These agents are generally coal undertakings. The Midland district is the only example of this type.

This Act and its amendments have eliminated competition in the coal industry. Protection is given to consumers by their right of appeal to a committee of investigation set up under the Act of 1930. But the protection is limited. It would appear from a recent case [10] that complaints can only succeed if they do not concern questions of price. This committee has prevented a certain amount of inefficiency in supplying consumers' needs.

Attempts have been made to increase efficiency in production and to eliminate surplus capacity. The industry has faced a long term decline in demand. Owing to foreign competition, to economies in the use of fuel, and to the decline in shipping, the industry has not expanded with the general increase in output.

The amalgamation policy is intended to concentrate output on the most efficient units so that costs should be lowered and the industry be in a stronger competitive position.

Under the Act of 1926, owners could submit amalgamation schemes to the Board of Trade, and powers of compulsion could be used over recalcitrant minorities if the scheme was approved by the Railway and Canal Commission. Nothing very revolutionary came out of this Act, and the position of coal-mining deteriorated. In 1930 the Coal Mines Reorganisation Commission was set up by Part II. of the Coal Mines Act, 1930. The Commission was given powers to amalgamate colliery undertakings compulsorily. Amalgamation schemes were to be prepared by coal owners, or in their default by the Commission. These schemes were subject to the approval by the Railway and Canal Commission, and had to be shown to be in the national interest and to result in lowering the cost of production and not to injure financially the firms concerned. This attempt at large-scale amalgamation was a failure, though the Coal Mines Reorganisation Commission stimulated numerous amalgamations by persuasion, most of which were brought under the Act of 1926. Before 1936, 370 pits employing 243,000 workers were included in 38 amalgamations out of a total of 2,000 pits employing 800,000 workers. These were such large amalgamations as the Doncaster Amalgamated Collieries with a capital of nearly £7,000,000, and the Powell Duffryn and Associated Collieries which owns 93 pits and is the largest coal-producing unit in Great Britain. To-day the industry is becoming organised in relatively large units. Table 20 on page 92 shows the increase in importance of the larger pits, but it does not show the size of firms.

Each district contains one or more amalgamations. In South Wales the Powell Duffryn group is associated

TABLE 20

SIZE OF COAL-MINES ACCORDING TO NUMBERS EMPLOYED, 1913–1935.

Number of persons employed	Under 30	31–100	101–500	501–1000	Over 1000
Number of mines in 1913 .	1,006	486	1,170	422	183
Number of mines in 1935 .	911	187	527	282	168

with Richard Thomas. Altogether, 4 out of the 150 undertakings in the main bituminous field produce over two-thirds of its output. The Amalgamated Anthracite group produces over 60 per cent. of the output. In Lancashire there are the Wigan Coal Corporation, a subsidiary of the Lancashire Steel Corporation and Manchester Associated Collieries, and Hargreaves Collieries Ltd., each dominating an area of the coal-field.

In Northumberland 70 per cent. of the output is controlled by four groups. In the South Yorkshire, Nottinghamshire and Derbyshire fields seven concerns produce nearly 40 per cent. of the output. In this area about half of the firms produce more than 100,000 tons per annum, and twenty-two concerns account for two-thirds of the output. In North Staffordshire three firms produce over 80 per cent. of the output. In the other areas there are dominant firms, many of which are associated with iron and steel companies.

The Coal Mines Act of 1938 made amendments to the amalgamation procedure, but it is too early to state whether it is likely to be successful. The coal owners themselves oppose compulsory amalgamation, although, as we have seen, they have not been slow to adopt the policy themselves. The chairman of John Bowes & Partners Ltd. stated : " If I may give my opinion on compulsory amalgamations, I should say that any justification for them no longer exists. I admit

that a few years ago it seemed as if amalgamations seemed the only way of stopping the cut-throat competition between collieries which was rapidly ruining the industry. Since the creation of various bodies which regulate prices and production, however, it is now possible to keep prices at a fairly economic level and, as I said, the chief argument in favour of amalgamation disappears."

The Agricultural Marketing Act, 1931, provides that a majority of producers of an agricultural product may compel a minority to observe uniform conditions of marketing by means of a statutory scheme controlled by producers themselves. A second Act, passed in 1933, provided the machinery for co-ordinating marketing schemes in operation for related primary and secondary industries. It also provided for the regulation of the marketable quantity of home-grown and imported supplies of agricultural commodities included in marketing schemes. A third Act dealing with subsidiary points was also passed in 1933.

There was very little support for this policy until the National Government undertook, under the Agricultural Marketing Act, 1933, to regulate imports, where necessary, to ensure the efficient working of any schemes adopted by producers.

Under the Agricultural Marketing Act, 1931, a scheme may apply to the whole or part of Great Britain. (There are separate schemes for Northern Ireland.) The Hops Marketing Scheme applies to England, the Pigs, Bacon and Potato Marketing Schemes apply to Great Britain, and there are four Milk Marketing Schemes, one applying to England and Wales and the other three to parts of Scotland.[11] An essential feature of all schemes is that no producer, unless specially exempted, may sell the regulated product unless he is registered, and then only on the terms and conditions

determined by the appropriate board. Amongst the most important powers that boards may obtain are the powers to control terms and prices of sale, the quantity produced or sold, and to trade themselves in the regulated product.

Every scheme provides for the constitution of a board (as a body corporate) to administer it, and must consist of elected members and two members who are considered to have commercial or financial experience, co-opted to the board after consultation with the Market Supply Committee.[12] The 1933 Act also provided that after 18th July 1933 all schemes which came into operation after that date must provide for the appointment of an executive committee of the board to consist of not more than seven persons of whom one must be a co-opted member.

Among other important provisions of the Act each scheme must provide for its revocation, amendment, finance, enforcement of its regulations and for arbitration and compensation. Further, the Act provides for Consumers' Committees and Committees of Investigation as public safeguards.

Finally, a development scheme which may be set up under the Agricultural Markets Act, 1933, has the primary function to organise the production of a secondary product in connection with an agricultural marketing scheme. A development scheme applies to the area covered by any agricultural marketing scheme regulating a secondary product and concerned in submitting the developments scheme.

The constitution of a development board must consist of independent members (one of whom is to be chairman) and other members elected by the constituent marketing Boards.

The Hops Marketing Scheme constitutes the Hops Marketing Board as the sole agent to, or through which the sale of hops by registered producers can take

place. The Board must accept all hops offered, unless they are contaminated or tendered after a certain date in each season. Under a voluntary agreement a Permanent Joint Hops Committee was established (which consists of members of the Hops Marketing Board, the Brewers' Society and independent members nominated by the ministers) to consider long-term planning in the production of hops, to estimate the demand for the year and the price to be charged. The Committee is to run concurrently with the quota provisions, the main facts of which are now described.

In order to meet the possibility of an increase in the supply of hops (following more remunerative prices), the demand for which is confined to the producers of beer, registered hop producers are allotted basic and annual quotas. These quotas are to operate until 31st March 1946, when they may be renewed. To qualify for a basic quota a producer must have been registered on the 1st September 1933, and his annual quota depends upon the estimate of the year's requirements of hops for the United Kingdom and upon his basic quota. No registered producer, however, is precluded from delivering hops in excess of his annual quota, but the payment for non-quota hops is dependent upon any money being available after payment for all quota hops at a previously agreed average price. The individual producer's hops is paid for according to quality.

The Pigs and Bacon Marketing Schemes for regulating the sales of pigs and bacon respectively both came into operation on 9th September 1933.

In conjunction with these marketing schemes a system of quantitative regulation [13] of imported supplies of bacon and hams was introduced with the object of stabilising the total annual supplies of bacon and hams in the United Kingdom at about an average level of 1925–30 supplies. The main object of the schemes was

to use the long-contract system (of twelve months) for the sale of bacon pigs by registered producers to registered curers in Great Britain. In practice it has been modified by permitting from time to time the sale of bacon pigs by registered producers to registered curers by other than the long-contract method.

The conditions of the long contract as to the terms of sale—including class, weight and grade—the price at which bacon pigs shall be sold and the conditions of delivery were among the most important clauses discussed between, and determined by, the two Boards before the Bacon Industry Act, 1938. That Act took the discussion of the price to be paid for pigs of a standard weight and grade out of the hands of the two Boards. This was done by the financial provisions which operate on the basis of a government guaranteed price-insurance scheme. This determined the price to be paid by registered curers with a general licence (*i.e.* all other than small or exempt curers) for a pig of a standard weight and grade, to registered producers selling such pigs on a long contract. That price varied in relation to alterations in the price of a standard ration of feeding-stuffs, and the purchasing curer received a price for his bacon dependent upon the ascertained price of a hundredweight of green bacon.

The basic terms were to operate (with slight modifications) for three years.

The Act also strengthened the position of the new Bacon Development Board. A Bacon Development Board had been brought into being by vote of both registered producers and registered curers with the object of co-ordinating the activities of the Pigs and Bacon Marketing Boards. The Act brought the original Development Board to an end and established a new Board with an increased number of independent members. The number of representative members of the two marketing Boards remained unaltered.

More important is the fact that the new Board acquired an existence independent of the other two Boards, and that it was also given power, with exceptions, to direct the operations of the Pigs and Bacon Marketing Boards. For example, it could give directions to the Pigs Marketing Board that the supply of pigs on contract must be allocated to general licence curers on some predetermined basis. It had an overriding power to direct the Bacon Marketing Board in regard to the determination of bacon production and sales quotas for registered areas.

In addition to strengthening the powers of policing by making the *purchase* (a departure, so far as the schemes were concerned, from power over sales) of pigs for bacon purposes illegal by registered curers, other than on long contract (unless granted an exemption by the Bacon Development Board), the Act strengthened the regulations in respect of the licensing of bacon factories. Lastly—and this was of considerable importance—the three vital powers which operated to restrict factory capacity, and empower the issue of bacon production quotas, and the allocation of pigs among registered curers were made contingent upon a rationalisation of factories being brought into operation within two years of the passing of the Act.

The market for liquid milk is provided with natural protection from imported supplies, but the home production of milk products has to compete with imported supplies. The problem of milk marketing thus arose mainly from an excess supply of milk available above the needs of the liquid milk market and produced, partly, as a necessary margin to ensure adequate supplies of liquid milk. This surplus milk either had to be sold on the liquid milk market, forcing down the price, or it had to be manufactured into milk products and thus compete with low-priced imported milk products.

The milk marketing schemes solve this problem—taking the scheme for England and Wales as an example—by an arrangement whereby registered producers receive a price for all their milk sales which depends primarily upon the total returns from the sale of milk for liquid consumption and for manufacture in their respective regions. This so-called regional "pool" price is a gross price credited to each producer in his region, irrespective of whether the milk has been used for liquid or for manufacture. The country is divided into eleven regions, and the pool price, worked out each month for each region, is not permitted to vary between regions by more than one penny per gallon. (The machinery is provided by the Inter-regional Compensation Levy.) Consequently, the price per gallon received in regions primarily selling liquid milk is brought into line with those regions which sell their milk to a greater degree for manufacturing purposes. Further, the milk which is sold for manufacture into milk products receives direct Government assistance under the Milk Act.

The contract prescribed by the Board (usually in agreement with representatives of distributors) lays down the conditions and the price at which milk shall be sold by wholesale. Moreover, retail sale of milk by producers is forbidden unless the producer has obtained a producer-retailer's licence from the Board, in which the conditions governing such a sale are prescribed. The retail price of milk is also fixed by agreement and is standardised throughout the country, with exception of the London Metropolitan area, where the price is slightly higher than for the rest of the country.

Unlike the other schemes, the Potato Marketing Scheme does not empower the Board to fix prices; it is essentially a regulatory scheme. The scheme provides the Board with powers which have been operated,

to determine a basic acreage, calculated on a choice of past years' plantings. This basic acreage limits the area which may be planted in any year by a registered producer unless (except potatoes grown for seed and potatoes grown in, and exported from, Great Britain) he pays an excess acreage levy which acts as a mild deterrent to increased planting. The limited effects of the basic acreage may be gauged from the fact that the unused basic acreage is approximately 20 per cent. of the total acreage planted ; and the deterrent effect of the excess acreage levy by the fact that registered producers have been willing to pay over £70,000 in the first four years of the scheme's operation to acquire increased acreage.[14]

As tonnage yield per acre of potatoes planted is the most uncertain, and also the most important, factor in total production from year to year, the powers given to the Board by which they may determine the size and weight of potatoes, which may be sold for human consumption, are also the most important. The main operative factor in this control is the determination by the Board of the size of the riddle. Potatoes which pass through the riddle must not be sold for human consumption.

In addition, under the powers, the Board have determined that registered producers must sell their potatoes (again with certain exceptions, the most important of which are direct sales to retailers) through merchants authorised by the Board.

Thus the Board's policy was to maintain a supply of potatoes on the market at stable prices which were remunerative to the grower, and in seasons of heavy supply it has been the practice, when necessary, to operate large riddles and even to limit the weight of potatoes which may be sold for human consumption so as to prevent the unloading of quantities of potatoes which would break the market. Under Orders made

by the Board of Trade, imports have also been regulated in accordance with home supplies. Hence, in years of heavy supply, such as 1938–39, the imports of potatoes were small, but during years of relatively small home supplies, such as 1936–37, considerable imports were permitted to meet home requirements.

These marketing boards are clearly the agricultural counterpart to the organisation set up in coal, and about to be set up in the cotton industry. They attempt to improve profits by controlling prices. In agriculture the problem has not only been one of continued depression in several sections of the industry, but also of co-ordinating the activities of the numerous independent producers. The following table shows the number of holdings of various sizes in Great Britain :

TABLE 21

DISTRIBUTION OF AGRICULTURAL HOLDINGS BY SIZE AND NUMBER 1937.

Size of Holding in Acres.	Number.
1–5 . . .	79,272
Over 5 under 50 . .	199,691
„ 50 „ 150 . .	109,817
„ 150 „ 300 . .	41,014
Over 300 . . .	14,230
Total .	444,024

These figures indicate the magnitude of the problem of administration.

Control of schemes of agricultural reorganisation has not been confined to marketing boards elected by registered producers of the regulated product. Indeed, control by independent commissions appeared to be more favoured by the Government before the war. The Wheat Commission set up under the Wheat Act of 1932 is an early example of this. It collected quota levies

from millers and importers and payed a subsidy to farmers based upon the difference between the market price and the guaranteed price for a maximum quantity of wheat. Any excess production of home-grown wheat above that maximum reduced the standard price.

The Livestock Industry Act provided for payment of subsidies at differential rates to be paid to producers of fat cattle in the United Kingdom ; the total sum not to exceed £5,000,000 per annum. Moreover, the importation of cattle and meat (excluding bacon, the imports of which were regulated under the Agricultural Marketing Act, 1933) could have been regulated by the Board of Trade in order to secure stability of the United Kingdom market for these products. But this power was only available and not to be used unless there was a breakdown in the then existing arrangements.

The Act also provided for measures to secure efficiency and economy in the marketing of livestock. To advise the Livestock Commission there was an expert Advisory Committee. The Act enabled the Commission, after proper investigation, to prepare livestock markets Orders and by-laws by means of which the marketing system might be rationalised and improved. The Orders dealt with the siting, equipment and lay-out of markets, and the by-laws with such matters as management and charges. But in regard to the Orders it is to be noticed that the function of the Commission was to make proposals only, and that the Order is made by the ministers concerned after a full inquiry into objections by persons affected. Even the Livestock Commissions' by-laws had to be confirmed by ministers and full opportunities given for objections to be made.

Another important efficiency measure enabled the Commission to frame schemes for three experimental slaughter-houses for which financial assistance from the Exchequer up to a total of £250,000 of grants and loans could have been provided.

A similar commission to that under the Livestock Industry Act was proposed for the poultry industry. Here a commission was to be set up with two main duties —to improve production and marketing. The poultry industry is faced with the serious problem of losses through disease. It has been estimated that the annual loss amounts to 25 per cent. per annum. On the marketing side, compulsory grading both for weight and quality of eggs were proposed.

In fishing, small units are important, though they are faced with serious competition from combines owning drifters and trawlers. The Herring Industry Board consists of members appointed by the Minister of Agriculture and Fisheries and the Secretary of State for Scotland. Its work consists in licensing drifters and trawlers and regulating the quantity landed in accordance with market requirements. The difficulties that face this industry are largely outside the control of any body dealing only with the production and wholesale marketing. The overseas markets have diminished largely owing to the decline in the Russian market and to a lesser extent in the German market. The home market has not developed sufficiently to take its place. In white fish the units are much larger and the ports fewer. The home market is more important than for herrings. Fried fish shops account for the sale of 50 to 60 per cent. of the catch of the cheaper varieties. The White Fish Commission has the powers to make regulations, for example, in regard to grading and sales by auction. Trawlers are laid up by voluntary arrangements among owners.

We have already mentioned the Enabling Bill for the cotton industry which was before Parliament when war broke out. This was also being considered by the Cotton Spindle Board. This Board was set up under Act of Parliament in 1936, for a period of two years

with the possibility of extension. It consists of three members appointed by the Board of Trade. It has to buy up and scrap "redundant" spindles. Cotton mills are bought and resold subject to restrictions on the export of machinery and their re-use in the cotton-spinning industry. Only scrap prices would be obtainable for the machinery and site values for the works. This work is financed by raising loans secured on a levy of 1¼d. per unit of spindles in operation. This Act was passed at the request of the industry, but the textile workers unions were opposed to it, fearing the effects on employment. In 1936, when the Board started operations, there were 10·6 million "redundant" spindles. In the first year the Board agreed to acquire 48 mills containing over 3¼ million spindles at a cost of £842,776; 1·9 million of these were scrapped by September 1937. But this year saw a revival in textile activity, which together with the scrapping policy reduced the surplus spindles to 3·9 millions. By the end of the second year of operation over 4½ million spindles had been scrapped. But in the meantime trade had declined, and there were estimated to be 14 million redundant spindles still in existence. The Board is continuing its activities, and has recently acquired the Tay Mills Ltd. with 91,000 mule and 43,000 ring spindles as well as others.

The Bill before Parliament in June 1939, and now in "cold store," [15] proposed to set up a Cotton Industry Board consisting of members from the trade and independent members appointed by the Board of Trade. This Board was to have the duty of examining and ensuring that schemes promoted by the sections do not conflict with the general interest of the industry. Schemes introduced by the sections can aim only at the elimination or reduction of redundant plant and the establishment of minimum prices or price margins. The Board was to be able to grant conces-

sions on these prices in order to assist the export trade. These concessions were to be reviewed by the Export Trade Development Committee. Provisions were also made for development of scientific and economic research, and a representative council of the industry as well as an independent Advisory Committee of three persons unconnected with the industry were to assist the Cotton Industry Board on questions of policy. The Bill was intended to apply to all yarns spun on cotton machinery, including rayon, and to the weaving and finishing of cloths containing 85 per cent. or more of cotton and rayon. Special types such as sewing-cotton, oil-cloth, etc., were to be exempt from the schemes, and firms mainly occupied in other textile industries were to be unaffected by redundancy schemes in weaving ; if their output of goods within the scope of the Bill were less than one-third of their total output. This Bill was promoted by the industry and approved by all sections including some of the trade unions, but with the exception of the merchants. There was, however, considerable opposition to it on the part of artificial silk interests.[16]

This completes the survey of the statutory organisations. It has shown the radical departure from the traditional lines of British economic policy.[17] Not by the widest use of the term can the concerns be called public utilities, nor is the method of control similar. The careful substitution of price and profit control for competition in Public Utilities has been practically ignored in these organisations, except for the Consumers' Committees and Committees of Investigation which were set up under the Agricultural Marketing and the Coal Mines Act of 1930, to protect the interests of the consumer.

What has caused this revolution in State practice ? Not highly abstract theories or attempts at socialist measures. Each industry has been treated on its

merits and the cure varies with the economic conditions peculiar to it. But behind these peculiar conditions there is a background of changing conditions in industry.

Statutory organisation has only been applied to industries in which the possibility of voluntary price and output control is small. Coal, cotton, agriculture and fisheries all show a predominance of the small firm. Their very numbers make the problem of voluntary organisation administratively impossible. They are also industries peculiarly subject to competition, or as business men prefer to call it, price-cutting. The competition of imports is important in textiles and agriculture. To some extent this has been met by tariffs, but with the possibility of foreign bounties on exports, and with unstable foreign exchange, this method does not prevent competition. Foreign competition in export markets is important in the coal and cotton industries. Japanese competition in India and China has hindered Lancashire exports to those markets, though just as important in its effects has been the development of home industries in those countries. Polish competition has affected the coal trade.[18]

Certain of these industries have been affected by a long-term decline in demand. Coal and cotton, shipbuilding and shipping, are examples. Shipbuilding has been able, partly at least, to solve its own problem with the aid of Bankers' Development Company in a scheme to buy up and demolish redundant yards. Price control in shipping has been stimulated by a Government subsidy. Liner shipping is one of the oldest examples of voluntary price control, organised as it is in large units. But coal and cotton have had to turn to methods of statutory organisation. The decline in demand in these two industries is likely to be permanent. The coal industry is faced with an extension of competitive sources of power, with economies in the use of coal and with the development of lignite as fuel.

The cotton industry has lost markets through the development of home industries in foreign countries and through the competition of artificial fibres, though with commendable enterprise it has taken to the spinning of staple fibre and the weaving of rayon and mixed fabrics. The following table shows this decline :

TABLE 22

WORLD PRODUCTION AND BRITISH PROPORTION OF COAL AND COTTON.

(Compiled from the *Economist* and Reports of the Secretary for Mines.)

	Coal.		Cotton.	
	World Production.	British Proportion.	World Production.	British Proportion.
	million tons.	Per cent.	*in thousand bales.*	Per cent.
1913	1,237	23·2	26,319	16·2
1924	1,222	21·8	22,319	12·1
1929	1,375	18·8	25,884	10·8
1935	1,155	19·2	24,300	10·2
1936	1,263	18·1	25,392	10·7
1937	1,333	18·0	28,596	10·0
1938	not available	—	26,556	8·6

This method of statutory organisation is still in the process of extension. Two Bills were recently before Parliament and it is possible that it may be applied to other industries after the war. But to see what are the possibilities it is necessary to examine the differences between the voluntary and the statutory types of organisations. In certain industries, industrial organisations to control the market, either through association or through the leadership of a dominant firm or firms, have not proceeded very far. In the textile industries market control is weak or non-existent. It has been

just as weak in coal and agriculture, and still is weak in brick-making and a few other trades. Failure to take part in the general movement is due to economic conditions within these industries. In brief, the large number of small firms and depressed profits due mainly to the existence of surplus capacity, foreign competition and a decline in demand have prevented the formation of voluntary schemes of market control.[19]

Where these conditions do not obtain, market control is either not required or else reached by voluntary combination. Any great extension of statutory organisation depends therefore on the existence of further industries fulfilling these conditions (or the outcome of political conditions).[20]

But the growth of large-scale production in most industries and the existence of the tariff, will make voluntary action easier in the future than it has been in the past.

There is, however, a possibility of a demand arising for control over industry in the interests of the consumer. The decline in competition is now almost universal, and should the public consider that they are being exploited by quasi-monopolies, or by price-fixing associations, be they voluntary or statutory, "trust busting" might become as popular a sport in this country as it once was in the U.S.A., though its success will be equally doubtful. At present this question does not arise in an acute form, as most policies have been restrained. Any large increase in demand in the future may, however, be met by an increase in price rather than in production, and then the consumer might easily feel exploited. This possibility is a real one. The stimulus to economic activity under the Government's former rearmament and present war policy is increasing demand, and the prior needs of rearmament and war, and the utilisation of a proportion of the available labour supply for military training is making it

difficult for industrialists to meet the considerable increase in demand by the necessary increase in production. The natural temptation to raise prices and exploit their monopoly position is enhanced then by the conditions in which an increase in demand are likely to occur. Limited safeguards, both for the consumer and for the national interest, are, however, available. Control in the interests of the consumer is directly in the line of British political tradition. Whether such a tradition will continue depends on so many factors, both political and economic. Control in the national interest is part of the stated Government policy.

Summarising the wide variety of State activities discussed in this chapter is not easy. Early interference in industry is found in public utilities. It is, in the first stage, substitution of public control for the automatic control of the market, lost owing to the local monopolistic position of the public utilities. Control in the interests of efficiency is a newer development, and one that was extended very slowly owing to a large number of conflicting interests which have to be reconciled. Although these activities touched such important industries as gas, electricity and transport, they never appeared to be a radical interference with economic life. They substituted public control for competition as the protector of the general interest. The recent developments have shown the State as more than the protector of the public interests. The protection has been extended to the profits of firms in certain industries. It cannot be emphasised too much that the statutory organisation in coal, cotton, agriculture, fisheries and others that may come along, are not an extension of the public utilities, but fill in the gaps left by voluntary combination in its defences against the forces of competition. The "trade share" is the logical conclusion. The scrapping of surplus capacity, by adding to the costs of

operating firms, as seen in the Cotton Spindles Board, is almost identical with similar voluntary schemes in milling and wool-combing. Price control, under statutory powers exercised by the district Boards in coal and by the Milk Marketing Board, are again essentially the same as the price-control schemes described in the previous chapter. But enough has been said to show the similarity between the new statutory organisations and the voluntary organisations that preceded them both logically and historically.

NOTES

[1] A number of these public utilities were municipally owned. For a brief historical account see Wickwar, *The Public Service*, especially parts 6 and 7.

[2] Parliament encouraged canal owners to come to arrangements among themselves.

[3] Similar public corporations control other ports: Glasgow, Newcastle-upon-Tyne and Belfast. The Mersey Docks and Harbour Board has already been mentioned. Amongst the other leading ports the railways control Southampton, Hull and Harwich, and the municipality, Bristol.

[4] They are shared out in the proportion of 62 per cent. to the Board and 38 per cent. to the railway companies.

[5] "C" share owners have the right to apply for receivership if a dividend of 5½ per cent. is not paid within three years. This has not been paid and fares have been increased in order to do so.

[6] This latter company can be cited as an example. In 1935 it issued £32,000,000 of 2½ per cent. stock at 97 to finance new tubes and the electrification of parts of the L.N.E.R. Suburban system as well as other works connected with London Transport. The exceptionally low rate of interest was made possible by a Treasury guarantee of interest and principal.

[7] Similarly the Bacon Development Board presents an annual report to the Minister, which is presented to Parliament, together with reports on the operation of the Marketing Schemes, prepared by the Ministry of Agriculture and Fisheries.

[8] The trade share provisions have been temporarily suspended owing to an increase in demand.

See *Annual Report of the Secretary for Mines for year ended* 31st December 1937, p. 26.

[9] Excepting coal produced by integrated concerns and used in their own works.

[10] " On the main issue a majority of the committee had not been satisfied by the complaints that the substantial reason for the desired change was a reason other than one of price." Statement of chairman to the National Committee of Investigation on a complaint by the Associated Portland Cement Manufacturers. Reports in the *Manchester Guardian*, 15th April 1939.

[11] All the Boards, with the exception of the Hops and Milk Marketing Boards, are to be put into " cold storage " during the war.

[12] Set up to advise the Government in respect to the regulation of imports. There is also a Potato and a Bacon Supply Consultative Committee; the personnel consists of persons representing the different sections of the industry with independent chairmen.

[13] Abandoned at the outbreak of war.

[14] The excess levy has been removed for the duration of the war.

[15] At the time of writing, June 1939. This Bill has also been put into " cold store."

[16] The rayon producers, some of whom are also manufacturers of fabric, oppose the Bill in part; the Rayon Weavers' Association supports it.

[17] If, except for occasions of rearmament and war, it is permissible to write of a British Economic Policy.

[18] Polish competition! Within six months of writing this, Poland does not exist, except as a geographical expression and an Allied war aim.

[19] Agriculture Co-operative Societies are an attempt at a limited measure of market control. They have not been important in this country. There are a number of successful ones in the purchase of agricultural requisites, in egg marketing and in the marketing of apples and certain other fruits and vegetables. See Appendix iv.

[20] Organisations established, for example, to assist the prosecution of the war may be maintained after the war.

CHAPTER V

THE NEW INDUSTRIAL SYSTEM AT WORK

THE effectiveness of the new industrial organisation can be judged first, by the extent and efficiency of market control, and second, by the effect on the balance-sheets of companies concerned. This latter criterion must be taken from the long-term point of view. A short-term policy might give high immediate profits, but, by antagonising the consumers of the products, might reduce demand in the future and ultimately lower profits. A further factor closely connected with this is the effect of any policy involving restriction on incomes and so on demand generally. These organisations aim at increasing the profits of their members and easing their marketing problems. They do not claim to improve economic institutions or, through them, alter the quality of human life. They must first be judged on their own grounds ; afterwards the resulting changes in institutions and the effects on the national economy can be discussed.

The first question is, does the new system improve the position of the industries adopting them ? The answer depends on the methods of market control used and the measures taken for enforcement and, in the long run, on the reactions of these on market conditions.

In some industries competition is imperfect, but no organisation exists to control the market. Competing firms exist, but either they are few in relation to their size and the output of the industry or, even if numerous,

are dominated by a few very large firms. Price policy differs from the competitive conditions described by the classical economists. Firms take into consideration the effect of changes in their policies on their competitors. In the matter of prices such firms tend to keep in step sometimes under the leadership of one concern. They also attempt to limit competition by attaching to themselves individually a part of the demand through branding or advertising.[1] Direct attacks on rivals by price competition is generally avoided as likely to lead to price wars.

Where one or two firms produce a large proportion of the output, smaller firms tend to follow the lead of the larger. Their very existence may depend on their so doing. "Price leadership," as this is called, is hard to prove, though the motives are easy to disentangle. The smaller and medium-sized firms are usually producing under conditions of relatively high costs.[2] They cannot greatly reduce their prices in a bout of price-cutting, nor have they the financial resources to fight the large firms. The latter hold the trump card. But there are disadvantages in eliminating the smaller firms, which can be effected either by a price war with its temporary losses or by purchase, generally on an over-valuation of the assets. Firms may be weak, but they do not go under without a fight. There must be considerable advantages to be obtained through complete control to offset the cost, as either alternative would reduce dividend paying capacity.[3] There is also the possibility of political reactions following resentment of a monopoly.[4] The position of price leadership may therefore be fairly stable.

Price leadership is reputed to exist in sugar refining. One large firm fixes a refining margin, which is followed by the other firms in the industry. The price of raw sugar is not controlled.

The London Brick Company is the largest unit

in the brick industry, controlling about 25 per cent. of the output. To some extent it has a rather local domination. In the North, competition is keen, as there are a large number of independent firms, though special railway rates are assisting the London Brick Company to compete in the North.[5] In the South, and to a great extent elsewhere, this company is reported to exercise price leadership. Small firms feel forced to follow the London Brick Company's lead. Some associations take a lead in prices which are followed by outside firms. In cable-making the independent firms follow the lead of the Cable Makers' Federation at a slightly lower level. Local price leadership is more common than national. Another type of price leadership is the leadership of a dominant concern as a member of a price-fixing association. Lever Bros. and Unilever Ltd. control the greater part of the output of the United Kingdom Soap Manufacturers' Association, and the Salt Union, a subsidiary of I.C.I., produces 90 per cent. of the output of the Salt Manufacturers' Association.

Price leadership, then, may obtain where competition is imperfect and the industry is dominated by a single firm or combine of firms, but where the economic advantages of complete combination are not sufficient to outweigh the losses to the larger firm involved in such an amalgamation.

Organised market control obtains in most British industries, but the methods vary widely. Price-fixing, output control, centralised sales and control over the channels of distribution are the main groups of methods. Any or all may be adopted.

Price-fixing associations generally fix the minimum prices for more or less standard lines of production. But in some cases minimum conversion margins over the cost of materials are fixed. The choice is dictated by the conditions of the industry. Minimum prices

are fixed in many products including coal, milk, soap, iron and steel; conversion margins, in cotton and worsted spinning and in re-rolling steel billets. The underlying differences between the two methods are in the cost conditions of the industry. Minimum prices have a wider range of applicability. But where the cost of one single material is high in relation to total costs, and especially where it is liable to wide fluctuations, conversion margins are more practicable. This is the case in cottons and worsted. The process of raw cotton and of tops are very variable; there is no control over them by [6] cotton or worsted spinners, who can only influence them indirectly through demand. In the re-rolling of steel billets two strong price-fixing associations face one another, one for the manufacture of steel billets, the other for re-rolling. An agreement on re-rolling margins has reduced the latent antagonism. The price of steel billets does not affect the re-rollers except indirectly through its effect on the demand for steel. In a sense, this is a mutual agreement to profit, as far as the demand will allow, at the expense of the consumer of steel.

Prices are generally fixed as thought "fair" or "reasonable" by members of the association.[7] In some cases costs are investigated and prices fixed to cover them. The latter method is no more scientific than the former. Prices have to be fixed to cover high-cost units, or otherwise they would no longer remain members in a voluntary organisation. Knowledge of the range of costs in an industry may be a useful aid to price-fixing, but no more. Prices have to be fixed somewhere along the range and fixed arbitrarily.[8] Both ex-works prices and delivered prices are found. Ex-works prices are more common. Delivered prices may be national or regional, and there are several methods of basing them. An example of regional delivered prices is found in cement. Transport

costs are reduced by this method in conjunction with local depots, which take larger quantities than a single customer would. Price-fixing and such conditions as the terms of sale are interesting aspects of the work of some of the statutory organisations by negotiations between producers and buyers or merchants. The Milk Marketing Board negotiate prices with the Dairymen's Organisation, and the Potato Marketing Board included representatives of merchant interests (*i.e.* buyers).

Output is sometimes controlled expressly to restrict production, and at other times merely to distribute the existing production between the firms in the industry. The latter method is probably more common, although examples can be found where both are present. These mixed methods are found in certain statutory organisations. The total output for coal is fixed by the Central Council in order to curtail production.[9] In the districts, however, each firm has a definite trade share based on its performance in the recent past. The Potato Marketing Board curtails sales of potatoes for human consumption by its riddle regulations and the levy on excess acreage, if it has any meaning at all, deters new production in the interests of existing acreage.

Output restriction is of two kinds. First, the reduction of producing capacity ; second, restriction by a quota system.

The reduction in capacity is partly an attempt to restrict output, but also partly an attempt to rationalise the industry by concentrating output on the more efficient firms. This has long been practiced by combines, but has had only a partial effect in this country, as there are so very few combines really dominating any industry. The I.C.I. has been successful in retiring high-cost units, and similar policies have been carried out by some of the combines in heavy industry, though

more in the interests of rationalisation than with a view to restricting output. A curtailment of production is difficult without full control over the industry, as in the condition of imperfect or monopolistic competition output policy has to take into account the attitude of rivals.

Elimination of surplus capacity by associations is a more recent feature of British industry. Payment for not producing was not invented by Roosevelt. Millers' Mutual Association preceded the Agricultural Adjustment Act by several years. The Shipbuilders' Security Ltd. and the Cotton Spindles Board are other examples. In all these cases there is a conscious attempt to restrict production as well as to " rationalise " the industry. The existence of this so-called surplus capacity prevents prices being fixed at a level considered remunerative. The method is to make a levy on members generally in proportion to their output to provide a fund to cover the servicing of loans. The loans are applied to buying up existing firms and closing them down. This is, of course, easier in a statutory organisation where compulsion can be applied to all members of the industry than in a voluntary organisation, but both in milling and in shipbuilding voluntary methods have been successful. In tramp shipping a government guaranteed loan has been given on each new ship on the condition that double the quantity of tonnage built was scrapped. Behind this policy lay the double object of reducing capacity and modernising the industry.

Although these methods are often called " reconstruction," or " rationalisation," or some other such term, they mainly aim at curtailing output in order to raise prices and thus increase profits. Any improvement in efficiency due to the concentration of output in the large units is a secondary consideration. These methods are peculiarly applicable to industries

in which capital costs form a higher proportion of total costs, and which are unable owing to changes in market conditions to utilise existing capacity to the full at a price considered " fair," " reasonable " or " remunerative."

The second general method of output control, a division of the market amongst existing firms, is widely used both among the voluntary and statutory organisations. A fixed proportion of total output is allocated to each firm. Performance in some recent years is generally taken as a basis. The proportion is laid down in the form of a standard tonnage, and periodically the proportion of the standard tonnage permitted, *i.e.* the quota, is fixed by the association or other central organisation. Production in excess of the quota is penalised by fines, and generally deficiencies are compensated by bonus payments. This method obtains in flour milling, in light castings, in tramp and tanker shipping, and in coal amongst many others. In coal there are no bonus payments for deficiency, but firms not using their quotas sell them to other firms who wish to exceed the quota, and this is the equivalent of the bonus. This is really less a method of restricting output than of dividing up the available output between the firms concerned. It verges on profit pooling.[10] The penalties for exceeding the quota are more to provide a fund to even out profits than to prevent excess production. But output can be restricted by lowering the quota generally, that is, lowering the proportion of standard tonnage that can be produced.[11]

The pooling of production and centralised selling is less frequently found in this country. Some district coal schemes and some branches of the chemical industry, however, do operate pooling and centralised selling schemes. These methods are used to control the market without the necessity for controlling prices rigidly. Their main contribution in preventing com-

petition is the elimination of what the trade calls "weak selling" with its temporary reductions in price. Generally centralised selling organisations make some further attempt to control the market through recommendations to their members on output. Bound as they are to sell all the output supplied to them by members, they must leave prices to be fixed by the market. They can, however, obtain extra profits from price discrimination where such a policy is suitable.[12]

Other methods of control can be found in influencing channels of distribution, trading arrangements and in supplying information about members' policies.

Open price systems are not so common in this country as in America. Firms in an industry agree, generally informally, to notify each other of their price policies; they may supply other items of market intelligence as well. The information thus supplied enables firms to take into account their competitors' policies accurately instead of guessing at them. It also is generally a preliminary to a closer association or agreements or understandings on prices charged. A noted example is in the big chocolate manufacturing firms. It is stated in the trade that Rowntree and Cadbury supply each other with information as to their market policy.

Re-sale price maintainance is widespread and frequently effective. The campaign against retail price-cutting in tobacco, motor cars and other branded goods has generally been successful, although there is still a number of "cut price" shops in existence. The object of this policy is to protect the retailers' profits in order to keep up the connection with the retail trade and also to prevent any possible reaction from cut retail prices on to wholesale prices, which are of course the main concern of the manufacturers. The policy is generally administered by an association linking manufacturers, wholesalers and retailers; for example,

the Proprietary Articles Trade Association and the Society of Motor Manufacturers and Traders.[13]

It is interesting to note in this connection the recent (1939) controversy on the committee stage of the Cotton Industry (Reorganisation) Bill which proposed to control not only the price at which the manufacturer sells but also the price at which the merchant sells. It was feared that if merchants were left free they would, in some undefined way, thwart price control. One member stated that it was a complete fallacy to say that it did not matter what happened to the goods if the manufacturer got his prices. The debate, however, seemed to show more than usual confusion on matters economic, and no clear reasons were given for controlling wholesale re-sale prices. By analogy no clear reasons can be given for the general policy of re-sale price maintenance except that of assisting the retail trade to prevent competition and thereby gaining their assistance in uniform trading methods.

Another method of control is by allocation of contracts. Here tenders are made in such a way that each firm gets a contract in turn. This is frequently the case in local building contracting.

Many associations adopt the policy of uniform trading arrangements. Trade discounts, wholesale and retail, are fixed for different quantities or different markets. Standards and standardised forms of contract and agreements are laid down and standardised methods of granting credit. This is an important point, as indirect price competition can exist through granting extended credit, or giving quantity discounts on smaller quantities than usual.[14]

The effectiveness of these methods of control depends on the observance of the regulations and on whether they are in accordance with economic conditions. The observance of regulations depends not only on the honesty of the firms in carrying out their agreements,

but on certain penalties that are generally imposed for breaches. Gentlemen's agreements are easily broken, and indeed it looked early in the century as if market control could only be obtained by complete amalgamation of competing interests. But two factors have saved the associations. The law on restraint of trade has become less stringently interpreted and price-fixing and similar agreements may now be legally enforcible as contracts. Other methods of enforcement have been evolved, which, though not 100 per cent. efficient, make any member pause to think before going back on the agreement.

Fines and monetary penalties by forfeiture of deposit are frequently imposed and will be enforced by the Courts if the firms have agreed to such in their contracts with the associations. Statutory organisations are not of course subject to any of the difficulties we have just mentioned, penalties for non-observance of their provisions are laid down in the statute under which they work. Frequently the statutory body is empowered to inflict fines on offending members. This has caused considerable dissatisfaction with the Milk Marketing Board, but the method was approved by a committee appointed to review this type of activity. But, generally, difficulties of control are less the legal ones of enforcing penalties for non-observance than the practical ones of proving the facts. Concealed rebates, for example, are not easy to discover, and this has hampered the price-fixing activities of the district boards in the coal industry until the more rigid selling scheme came into force in 1936.

Voluntary associations have, however, no such easy way out. Their weapons vary considerably according to the type of market control practiced. The monetary penalties mentioned above are used for most types of price and output control. Owing to the difficulty of collecting fines without a costly legal process, they are

generally levied on the firm in advance when it joins the association. The deposit of money on joining is sometimes considerable and the fines are taken out of this.

Boycotts can be used to support a price-fixing policy. The withdrawal of supplies to traders dealing with non-members of the association or with members who are not observing prices can be effective. It depends on the proportion of the trade controlled by the association. When this is high, boycotts may well be feared by traders.[15] Deferred rebates and loyalty rebates are similar in their effects. They both tend to attach traders to dealing exclusively with members of the association. The loyalty rebate is a discount given to firms dealing only or in a great proportion of their trade with members of the association. The deferred rebate merely makes this payable at a later date, so giving dealers a monetary incentive to continue with the trade with association members. Otherwise the rebate on their past dealings might be forfeited. This latter method is more effective.[16] Members of the Association stand to lose their connections if they leave the Association. There is, therefore, an additional guarantee that they will observe the regulations. Retaliatory price-cutting is a last resort, and its sphere is very limited. A recent case where the mere threat of this prevented the setting up of a new plant shows how powerful it may be where capitalisation and expensive plant is required.

Re-sale price maintenance is supported by the "boycott" or "stop list" as it is generally called. The "stop list" is circulated to members of the Association. It was recently challenged in the courts, but was ruled as being legal. This is a very effective means of enforcement where manufacturers and wholesalers are loyal to the Association. But it depends to a large extent on this factor. Apart from the small supply through theft or the important buying-up of

stocks of bankrupt firms, cut-price shops appear to obtain supplies by collecting the goods themselves under some other name and paying cash down. Some suppliers will ask no questions. The Association can very rarely obtain proof of supplying to these cut-price shops. Proof of price-cutting is generally obtained by an inspection service.[17]

All the measures of enforcing market control described above have made it effective in the legal sense. But the strength of an association and the effectiveness of its regulations are not the only criteria of its success in maintaining or increasing profits. Economic conditions are important and affect different methods in different ways. Market control does not directly affect demand.[18] The most that the association or combine can do is to obtain the highest net revenue for the industry taking into account both costs and demand. The prices to obtain this revenue may be high or low, depending on the elasticity of demand. These are so complicated that the controlling bodies have difficult factual problems to solve. But even with an accurately devised price policy from this point of view, firms may be little or no better off. In some industries the profits of control may be illusory. Competition will continue in advertising, in speed of delivery and efficiency of service generally. The most striking recent example of this is the railways. The speeding-up of train services, the improvement of stations and advertising of facilities for travel have been undertaken to attract custom. These were partly agreed policies to meet road competition, but partly initiated by individual companies : and others have been compelled to follow suit or lose traffic where they are serving the same district. These non-price methods of competition add to the cost. They give a temporary advantage to a firm, but as soon as they become general the advantage may be lost

and the competitors may regain their trade. The only result would be to add to the cost as demand is only likely to be increased in exceptional cases. It is quite possible that the net revenue is less than would have been obtained under competitive conditions. This will, of course, depend on the cost and the demand conditions as well as the trading methods that obtain in the industry. Output control limits this type of competition. It is useless spending money on advertising, etc., if no benefit can be obtained in increased trade, as against any such increase must be set the payments for exceeding the quota. Output control is easier to enforce and to administer than price control. It has, however, one disadvantage, that it may be resented by independent firms as too great an interference with the details of their business. Prices are fixed as thought "reasonable," and output is restricted until prices rise to that level. If such an output results in working under capacity at high costs, a plant scrapping scheme can be introduced and the output concentrated on fewer firms, though the reduction in costs due to this must be greater than the scrapping of plant for the policy to pay.[19] Even the trade share, which does not actually curtail output, will restrict non-price competition. The conditions for effective control, therefore, vary considerably. Cartels and combines give no blessed release from the underlying economic factors. They are successful in certain conditions of costs and demand when administration is efficient and observance of regulations the rule and not the exception. But no administration can force the consumer to take a stated quantity at a stated price. There is no way of becoming independent of the market. The integrated firms are in the same position. They have insured themselves against competition for supplies and against fluctuations in the prices of their materials. With outlets in finishing trades they may erect barriers against competition, and obtain a ready market for

their products, if the price to the consumer is in line with the conditions of demand. They cannot become sufficiently integrated to control the consumers' purse.

Any attempt to show the results of the new system in industry on the profits of the firms concerned is likely to be wrecked on *post hoc ergo propter hoc*. A comparison of profits before control and after shows the great increase that has occurred in recent years. But in the meantime conditions have changed. There has

TABLE 23

THE *ECONOMIST* INDEX OF PROFITS.

Year.	*Economist* Index of Profits.	Increase or Fall on Previous Year.
1928–30	102·6	—
1931–34	74·2	− 28·4
1935	83	+ 8·8
1936	93	+ 10·0
1937	108	+ 15·0
1938	122	+ 14·0

been a general revival of trade, and the increase may be due to this and not to the intensification of market control. What can be done about it? Very little. Certain industries can be taken and a comparison made of their profits before and after control and with the general movement of profits in recent years and the percentage rise or fall over the previous year. This is shown in greater detail in the next table, which also throws some light on the methods of finance adopted

TABLE 24

RETURN OF PROFITS BY CERTAIN COMPANIES, 1931–32 TO 1937–38.

(Compiled from the Bank of England Statistical Summaries.)

	Number of Companies.	Profits. Paid-Up Capital.	% Change in Annual Profits on Previous Years.	% of Paid-Up Capital. Total Profit.	Dividend.	To Reserve, etc.
Year ended Sept. 30:		£'000				
1931–32 . .	2,000	2,422	– 25·5	5·7	5·3	0·4
1932–33 . .	1,953	2,344	– 3·3	5·9	5·4	0·5
1933–34 . .	1,971	2,353	+ 15·6	6·9	5·6	1·3
1934–35 . .	2,099	2,422	+ 18·0	8·2	6·4	1·8
1935–36 . .	2,175	2,461	+ 12·8	9·4	7·0	2·4
1936–37 . .	2,226	2,468	+ 16·2	10·8	7·8	2·9
1937–38 . .	2,374	2,531	+ 11·2	12·0	8·3	3·7

TABLE 25

PROFITS IN THE COAL INDUSTRY.

Years.	Average Profits per ton raised in Pence.	Rise or Fall on Previous Year.
1925–29*	1·2	—
1930–34	4·4	+ 3·2
1935	6·25	+ 1·85
1936	11·5	+ 5·25
1937	14·75	+ 3·35

* See *Annual Report of the Secretary for Mines for the year ended 31st December* 1937, p. 161. The figure for 1925–29 includes two years of heavy losses.

by many companies. A large proportion of their profits are devoted to reserves.

The coal industry in which control has been possibly most thoroughgoing shows considerable increase in profits as is shown in Table 25.

Equally authoritative figures do not exist for other industries. They can only be based on a partial examination of company reports. The following table shows the profits of certain leading iron and steel and coal firms :

TABLE 26

PROFITS OF CERTAIN IRON AND STEEL FIRMS, 1933–34 TO 1937–38.

(Compiled from the Bank of England Statistical Summary.)

Years.	Average Dividend Earned.	Rise or Fall on Previous Year.
1933–34	3·0	—
1934–35	5·6	+ 2·6
1935–36	7·9	+ 2·3
1936–37	12·7	+ 4·8
1937–38	10·2	− 2·5

The earnings of shipping can be more directly compared with trade conditions to elucidate the effect of control as opposed to the revival of trade. The table opposite, from the Bank of England Statistical Summary, shows the profits of a number of shipping firms.

The estimated quantity of United Kingdom foreign trade increased from 116·3 million tons in 1935 to 132·3 million tons in 1937. But freight rates increased

TABLE 27

PROFITS OF CERTAIN SHIPPING FIRMS, 1933–34 TO 1937–38.

Years.	Average Dividend Earned.	Rise or Fall on Previous Year.
1933–34	1·7	—
1934–35	4·0	+ 2·3
1935–36	6·4	+ 2·4
1936–37	9·1	+ 2·7
1937–38	13·2	+ 4·1

still more from 100 in 1935 to 175·6 in 1937, according to the new weighted index of the Chamber of Shipping.

Similar figures are not obtainable for agriculture, though there are local economic surveys.[20] The effect of the price control schemes on the pockets of the farmers cannot be estimated. It is not possible to measure it by an increase, if any, in controlled prices as the costs of production, fertilisers and feeding-stuffs particularly have changed.

Information is too slight to draw decisive conclusions. But it is likely that these organisations, voluntary and statutory, have had some success in increasing profits in the short run. But the future is even more doubtful. The indirect effect of price and output policies on employment and incomes is doubtful. Any fall in employment or incomes will have a cumulative effect and may reduce the demand for the products generally. This will in turn react on industrial profits.

In an economic system, based on private enterprise and private property, the meaning of the term " owner-

ship " is important, and the meaning changes with the changing structure of the economy. In the period in which classical economics arose, the business men and industrialists, that is, the persons who take the effective decisions in production and trade, were also owners of the businesses in which they worked. They might be called owner-managers, a term on all-fours with the owner-occupier of agricultural land. Ownership, then, in its economic meaning, was simple, one employed one's property, one's stock, to use the term of Adam Smith, in one's own business. The profits of stock and the wages of management were inextricably mixed. But with the increasing use of the joint-stock principle and the limited liability company, ownership implied something different. Apart from the loans made on mortgage, *i.e.* debentures, etc., the owners of industry are the ordinary shareholders. Their ownership does not mount to a control over concrete objects, but to a right to a share in the profits of the concern. To-day, ownership often is divorced from active participation in industry, except in agriculture, and certain sections of distribution. While in theory the shareholder has a vote which is supposed to give him control, in practice he is in the hands of the directors of the company, and perhaps also of a few larger shareholders. There is, of course, an outlying fringe of owner-managers in many industries, but their sphere is declining. The only real exceptions to this are the few large concerns organised as private limited liability companies.

The increasing dominance of industry by combines and cartels has given a further twist to the meaning of ownership. It is becoming less a right to draw a share in the profits, and more a right to draw dividends in perpetuity. The factor of risk, the short-term risk at least, is declining. Absentee ownership, as Veblen has called it, is no longer at the mercy of competition, either price competition or the imperialism of the large

firm. In several industries each firm has a right to a share in the market obtained through production quotas and trade shares. Provision is generally made for re-allocation of these shares, such conditions change, but the process would not be popular, and the provisions do not appear likely to be of great importance. The field without quota restrictions and trade shares is still large, but it dwindles each year. This is a tendency rather than an actuality over a wide part of industry, and after all it is only the logical development of the divorce of ownership from control.

The implications are considerable. It is an aspect of the changing capitalisation of industry as well as of changed business opinion. The increase in the amount of capital equipment per unit of output or per worker is an acknowledged fact, though difficult to measure. Perhaps the best indication is the horse-power per worker in certain industries. This is shown below for different dates.

TABLE 28

HORSE-POWER PER WORKER IN CERTAIN INDUSTRIES (excluding Electricity Supply).

Year.	Power per Worker in h.p.
1907	1·5
1924	2·0
1930	2·4

The effect has been twofold. It has completed the elimination of the owner-manager for all practical purposes, and has aided the development of the trade share and quota restriction practices through making

competition more intense and therefore to be avoided even at the cost of independence. The change in business opinion is interesting. Competition is no longer thought to be a stimulus to efficiency, the necessary concomitant to an economy aiming at the maximum production of goods and services. It is price-cutting—that is to say, it is something unfair, to be suppressed. It hampers efficiency now and prevents the consumer from obtaining the quality at the price he would otherwise have done. Competition, it is said, no longer benefits either producer or consumer. "The division of the available trade between all the manufacturing interests will have the effect of maintaining the guaranteed quality of the produce for the consumer, who is thus ensured of speedy delivery at economical prices, and establish for manufacturers a reasonable profit per ton, together with an assured proportion of the tonnage during the next few years. The industry is now highly organised for the protection of the consumer as well as the manufacturer." These changes in business are a reflection of the changing structure of industry.

There is another side to this. In the past, errors of judgment leading to surplus capacity or a decline in demand making plant redundant, meant bankruptcy for the financially weak, and still entails bankruptcy in some industries. But more and more to-day the elimination of the inefficiency by bankruptcy is superceded by surplus capacity schemes.[21] Weak firms are bought up and closed down by some form of levy on output. They obtain a fair valuation instead of scrap prices for their assets. National Shipbuilding Security Ltd. has spend over £1,000,000 on buying up surplus yards. This is some measure of the extra cost entailed upon an industry by this method of reducing capacity. To cover this, 1 per cent. tax is levied on the price of all vessels built by members.

The second institutional change is the abolition of the automatic market determination of prices and output. The free market still exists in some groups of commodities, and even where the market is controlled, competition is sometimes intermittent or takes other forms. But over a wide field of industry the self-acting mechanism for ensuring that the economic system will produce the maximum of output at the lowest cost no longer operates.

Rigidity of a large section of industrial prices has important effects on consumers and on other industries.

With automatic price adjustments superseded by administrative control, private or public, there is nothing to ensure that productive resources will be distributed between industries so as to maximise utility. There is no self-righting mechanism in an economy constrained by such price rigidities. In times of bad trade, production will fall more than prices, and the result will be one of extreme fluctuations in employment. These fluctuations may be accentuated by the division of industry into two sections, the one controlled and the other uncontrolled.

These controlled sections are also sponging on the taxpayer. A high proportion of the cost of unemployment is borne by the central or local government. The firms themselves bear only a proportion of these costs through tax and rate payment and through their contributions to unemployment insurance. The proportion has been even smaller since the De-rating Act of 1929. If their policy of stable prices increases the fluctuations in employment, they are directly increasing the cost of unemployment at the expense of the rest of the community. There is no cost for idle capital. The policy of keeping it idle is adopted as the one giving the greatest net return, in the circumstances.

Apart from these general effects on business there are the special effects on industries closely associated

with the controlled industries. For example, the motor trade is closely dependent on the supply of steel. Any increase in the price of steel increases the costs of motor manufacture. The price of coal is a cost in most industries. It is more important in some, such as electrical generation, than in others. The increases in the price of coal in 1939 have increased the cost of fuel for electricity. This has not been offset by the continued economies in coal consumed per unit or power. Other economies have prevented any general rise in the price of electricity, but should this movement continue, the increasing cost of electricity would increase production costs in a wide range of industries. This applies with equal force to other methods of power provision. Actually the policies of most of the cartels and combines have been restrained and have not aroused much opposition from industrial or financial consumers. The chairman of the Associated Portland Cement Manufacturers has pointed out that the reduction in costs of manufacture had been more than passed on to the user since 1925. In this period costs had fallen, but prices had also fallen by 34 per cent. Recently the cement combine has reduced prices further, possibly to ward off the danger of new entrants. Mr. Lewis, a well-informed American observer, writes in *Price and Production Control in British Industry* : " No one who has knowledge of the restraint which characterises the typical British industrialist and his capacity for visualising long-run self-interest will expect British consumers ever to be made to feel that they are being badly treated by British Industry." Prices have not risen in a spectacular way. In spite of the increase in expenditure on armaments, the iron and steel industry have maintained prices practically unchanged.[22] This is the industry most widely criticised by other industrialists for their price policy. Perhaps they have learned their lesson. The textile trade has accused the finishing

sections of excessive prices, and the finishing trades have passed the accusation on to the manufacturers of dyestuffs. But generally the price policies have raised little criticism.

But even if the price policy is restrained the automatic action of the market has been superseded. It yet remains to be seen whether the new methods are efficient in the sense of giving no less balanced adjustment of production and consumption, and no less an expansion of the standard of living than the previous " self-acting " market price system.

A third change is the growing connection of the State with business. For good or ill, the State is no longer the referee holding the ring. With the political implications of this, important as they are, we are not concerned. Our interest here is only with the economic effects. There are several points to be considered. Is this State interference equivalent to planning or an approach to it ? Or is it a passing phase born of depression, brought up under rearmament to die of ennui with peace and prosperity ?

It can hardly be called planning. There is no central direction to economic affairs. The State has interfered piecemeal, and as far as possible has left the details to the industry concerned or to independent persons, but has always refused direct responsibility itself. The indirect influence is as important as the direct legislation, but much more difficult to ascertain.

Nor is it likely to disappear as conditions peculiar to the last few years pass away. There is a general movement towards State interference in industry. It can be seen in France, in U.S.A. and in most parts of the world. Such a world-wide movement must have the same general causes behind it. This lies in the conditions of competitive industry, the increasing capitalisation of industry, the difficulty of selling the goods produced. Until these conditions change, the

movement for market control will continue, and as long as this continues the State will be asked to apply compulsion in order to prevent parties to an agreement for market control going back in arrangements.

NOTES

[1] Branding is widespread in processed foods, textiles, toilet requisites and drugs.

[2] If these firms are low-cost producers the conditions for price leadership will not obtain. The medium-sized firms are generally in the worst position for costs as the small firms are often producing for a special or local market.

[3] Questions of prestige may enter in, especially where the large firm has been built up by one man; *e.g.* Carnegie and the United Steel Corporation.

[4] The United Dairies can point to competitors when accused of monopoly. Price competition is no longer possible under the Milk Marketing Board's price agreement.

[5] Special rate of 8s. 6d. a ton was guaranteed for bricks from Fletton to Halifax (the normal rate is 14s. 8d.) in March 1939.

[6] Price-fixing in woolcombing relates only to commission work.

[7] The similarities and the differences between this and the mediæval ideas on the "just prices" are interesting.

[8] In competitive conditions, costs are irrelevant to prices in the short run. Efficiency in production will not be improved automatically if prices are fixed on costs. The stimulus to reduce cost will be weakened.

[9] In actual practice, permitted output has generally been higher than actual output. Recently, however, permitted output is lower, but supplementary quotas are to be permitted. No restriction, therefore, is being practiced at present, but the circumstances are hardly normal.

[10] The tramp-shipping pool and the tanker pool show clearly the close connection between this method and profit pooling. In both these cases, owners must pay into the pool a levy on all freights received; funds from the pool are then used to compensate owners of ships laid up. The object, of course, is not the pooling of profits, but the prevention of competition from shipping, for which there is no demand at current rates. The partial profit pooling is a consequence, not a motive.

[11] International commodity control uses this method widely—tin, rubber, tea, are examples.

[12] The Milk Marketing Board is a statutory organisation practising

price discrimination. Centralised selling agencies are also found in export trade, although generally they only control a section of the product and/or a section of the export market.

[13] The P.A.T.A. consisted in 1930 of some 440 manufacturers, 63 wholesalers and 8,700 retailers.

[14] A number of these standard practices aim at facilitating dealings, and in no way restrict competition. Most of them are, however, a necessary adjunct to organised market control.

[15] Evidence is difficult to collect, as associations are secretive on this point, and it is impossible to say to what extent it is used.

[16] Loyalty rebates, for example, are given by members of the Cable Makers Association, and have been given in the Egyptian Mule Yarn Agreement; this has recently been dropped. The Electric Lamp Manufacturers Association has a complicated system of rebates, the amount of which depends on the proportion of the dealers' turnover taken from members.

[17] This method is used in the motor trade, in drugs, in tobacco, in bookselling, in toilet requisites, cosmetics and the trade in branded goods generally.

[18] Indirect effects on demand may be considered in the long run. The high price of tin under the international cartel has stimulated the use of aluminium. Now that some users have become accustomed to this metal, they might not go back to tin were the price reduced. The result then would be a shift in demand.

[19] Some of the plant-scrapping schemes have been introduced to prevent the competition of firms on the edge of bankruptcy, and this question of cost has been incidental.

[20] For example, "Changes in the Economic Organisation of Agriculture," University of Cambridge, Department of Agriculture. Farm Economics Branch, Report 27, where an estimate for the Eastern Counties for 1938 states that the net returns per acre average some 20s. less than in 1936, and 12s. less than 1937.

[21] Bankruptcy is most frequent in the unorganised trades with small scale conditions of output. See chap. i.

[22] Following slight reductions in December 1938, there was a further decrease in Hematite Pig Iron and increases only in Acid Steel Billets, and products rolled from such billets, in 1939. *Manchester Guardian*, 16th May 1939.

CHAPTER VI

DISTRIBUTION AND MARKETS

WHILE there is no Census of Distribution which provides information equivalent to that obtained from the Census of Production there are, fortunately, some estimates of the value of these services and some private investigations [1] into distribution over limited areas.

Distribution covers two main forms of merchandise : the supply of goods and services to consumers, and the distribution of material and plant to factories for further processing (including, of course, the raw materials for farming). The latter, however, is part of the productive process and in this chapter we are concerned mainly with the first aspect of distribution.

Clark has estimated that transport, distribution and services accounted for 37·2 per cent. of the net national income after excluding indirect taxation and the rent of dwellings.

According to the " Trial Census " the processes of wholesale and retail distribution are responsible for some 35 per cent. of the retail selling price of a wide range of commodities. According to another estimate the average gross margin on retail sales alone is about 25 per cent. of the selling price to the consumer. Although these statistics do not permit us to draw any very definite conclusion as to the net value of the contribution of distribution to the net national income, they do provide an indication of its importance and enable us to draw a conclusion that it *probably* accounts for about 20 per cent. of the net national income.[2] An

estimate made on the basis that retail sales account for more than half of the expenditure of the net national income corroborates this conclusion.[3]

Table 29 on page 138 sets out the important facts of the amount spent on goods and services, mainly by retail, in 1932 :

This table shows that retail sales accounted for 58·5 per cent. of the total expenditure of the consumer in 1932 on consumable goods and services excluding investments. This proportion can be regarded as approximately correct in any year.

Food, drink and tobacco account for well over half the retail sales and 37·9 per cent. of total expenditure. Food-stuffs and other groceries account for nearly half the retail sales and for over 25 per cent. of total expenditure. This vast expenditure is reflected in the large proportion of shops dealing with the sale of foods and other consumables. Arising from the existence of the large proportion of families at very low income levels whose main expenditure is on food, the wholesale and retail trade in food is by far the most important, followed at some distance by clothing.

Turning to the "Service Consumption," the expenditure on local travel is most important, with the cost of domestic service a good second, and accounting for 3·8 per cent. of the total expenditure. Of the remaining miscellany one of the most interesting items—apart from betting—is the expenditure of £25,000,000 on laundering.

Of all the service items, rail, train and omnibus travel, hotels and restaurants, postal services, undertaking, trade union fees and gas, electricity and private water supply directly affect the industrial and the distributive system.

We can now consider the detailed structure of distribution as a continuation of the process of production. There are three main forms of marketing

TABLE 29

AMOUNT SPENT ON GOODS AND SERVICES IN 1932.

(Compiled from C. Clark, *op. cit.*, Tables 64 and 67.)

SALES.	Amounts Spent.		Per Cent. of Grand Total.
RETAIL SALES:	£'000,000	£'000,000	
Piece Goods	70		
Women's Wear	139	379	9·6
Men's Wear	115		
Boots and Shoes	55		
Furniture	95		
Hardware	60		
Stationery, Drugs and Fancy Goods	123		
Sports and Travel Goods	31		
Food-stuffs	1,054		
Other Groceries	30	1,452	37·9
Drink	232		
Tobacco	136		
Petrol and Oil	21		
Car and Cycle	40		
Newspapers	30		
Coal	65		
Total	2,296		58·5
SERVICE CONSUMPTION:			
Rail, Tram and Bus Travel	158		4·0
Domestic Service	150		3·8
Entertainment, other than Betting	57		1·4
Betting	40		1·0
Hotel and Restaurant	78		
Medicine	45		
Postal Services	35*		
Religious Organisations	33		
Laundry	25		
Private Education	25		
Fees to Local Authorities	20		
Club, Trade Unions, etc.	20		
Undertaking, etc.	8		
Other Services	20		
Total	714		18·1
Rents, Rates, Repairs and Mortgage Interest on Houses	363		9·2
Gas, Electricity and Private Water Supply	85*		2·1
Total	448		11·3
Direct Taxation and Social Insurance	444		11·2
Garage, Insurance, etc., of Private Cars	35		0·9
Grand Totals	3,937	3,937	100·0

* Refers to private expenditure only. Clark remarks that Banks, Insurance Companies and Building Societies are included because the amounts which would be set-off against them must be regarded as having already been deducted from gross income of those who have invested through them.

organisations for commodities—apart from the sales through the Produce Exchanges—and which apply to the home and overseas markets.

Goods are sold through merchants or middlemen in the United Kingdom, or they may be sold by the manufacturers' own marketing organisation, either at home or abroad. Alternatively they may be sold through some form of joint marketing organisation for either competitive or non-competitive goods.[4]

In practice, the methods become very much more complex, but this simple statement gives the backbone of distribution either through wholesalers or to the markets abroad.

As there is no Census of Distribution for the United Kingdom, official estimates of the number of wholesale distributive agencies and of the number of shops do not exist. We have, however, some not very satisfactory information of the former and more detailed information about the latter, provided by private investigators and estimates made by the Co-operative Union.

The estimates of the total number of shops—we do not possess an estimate of the total number of distributive agencies—varies between 500,000 and 1,100,000 for Great Britain. These estimates were, however, made at different times and there is the added difficulty of definition.[5]

Retail outlets consist of unit shops, multiple shops,[6] departmental stores, consumer co-operative stores and outlets such as chocolate, newspaper and tobacco kiosks and retail markets. The Co-operative Union provided an estimate of the different types of store (as distinct from "outlets") at a recent Co-operative Congress. Of 750,000 retail shops there were 685,000 unit shops, 40,000 chain stores or multiple shops, 24,000 consumer co-operative stores and 1,000 departmental stores. In this country a considerable number of chain stores are "invisible"; that is, as the owners do not wish

to break any connections between the firm and the customers, they do not make any alterations in the store which would draw attention to the change in ownership. There is a possibility, therefore, that their numerical importance is underestimated. Nevertheless, the unit shop still preponderates, though in particular trades such as grocery and boot and shoe retailing the chain store is of more importance than in other categories of retailing.

In the grocery trade there were in 1930 over 400 chains with over 6,000 branches.[7] In the boot and shoe retailing in 1937, 19 multiple concerns, excluding co-operative retail stores, owned or controlled 2,840 on 20·4 per cent. of all branch shoe shops. Including co-operatives, these concerns distributed 50 per cent. of all shoes. These two important types of chain stores, therefore, account for over 25 per cent. of all chain stores.

The departmental stores are not numerically important,[8] nor do they compete with the unit store to the same extent as the chain stores.[9] Their business and location is dependent upon a large local and/or a large visiting population. The development of stores like Woolworth's and Marks & Spencer's, however, has to some extent combined the influence and importance of both the chain store and the departmental store.

Because the consumer co-operative stores are consumer-owned enterprises and work on a different basis to private enterprise, they are considered separately in Appendix II. Here it is sufficient to point out that the 24,000 shops and the 1,100 travel-shops have a total retail turnover of more than £248,000,000 per annum.[10] Thus, despite the fact that the number of retail shops is only 3·3 per cent. of 750,000, their retail trade is 10 per cent. of the largest estimate of total retail sales—£2,500,000,000.

We possess two estimates of the proportion of trade done by the four different types of stores, and this is shown below :

TABLE 30

PER CENT. OF TOTAL TRADE AMONG CERTAIN TYPES OF SHOPS ESTIMATED BY—

	Dobbs.	Neal.
Unit Shops . .	61	50–60
Chain Stores . .	18	15–20
Co-operative Stores .	12	12–15
Departmental . .	9	7·5

It would appear therefore that 10 per cent. is probably an underestimate of the relative importance of the retail trade of the co-operatives.

The chain stores also are shown to do a trade out of proportion to their numbers. This fact is corroborated by the experience of the U.S.A. where, in 1933, there were 1,349,337 independents (unit shops) and 141,603 chain stores. Sales of the former amounted to $17,827,000,000 and of the latter to $6,313,000,000. Moreover, while the unit shops handled 77·5 per cent. of the trade in 1929 (a lean year), they handled only 71·2 per cent. of the increased trade in 1933. In the same period, the chain stores increased their trade from 20 to 25·2 per cent. The trade handled by the chain and departmental stores is expanding, but not apparently at the expense of the unit retailer. They appear, instead, to be expanding to meet the needs of an increased market.

Comparable with the development of various forms of combination and integration in industry, there has also developed in the home market direct sales by

manufacturers to retailers. This is the result of two broad developments : the integration of retailing with manufacturing, and the demands of the multiple stores and the departmental stores. There are numerous examples of the former : Lennards' manufacture boots and shoes and supply their own shops ; Boots', the manufacturing and retailing chemists, and Burton, do the same type of business. And large retailers like Woolworth's and Marks & Spencer make their own arrangements with manufacturers direct. So do department stores like Lewis's, at any rate for a wide range of commodities.

The advantages to the manufacturing retailer are security of outlet, centralised buying, economical transport. Direct purchases by retailers is made mainly on account of lowered cost, though also because sometimes they can also secure preferential treatment in delivery. This, of course, does not mean that the wholesaler has no useful function to perform. On the contrary, this development may be easily exaggerated, as will be realised when it is remembered that the vast number of retail unit shops which exist are all dependent upon the wholesaler. In short, what is feasible for a relatively small number of highly organised shops, dependent upon a comparatively large total demand, is not feasible for the bulk of retail traders.

Nevertheless, merchants have been seriously concerned, and the Council of the London Chamber of Commerce in 1939 appointed a special committee to consider the movements in the various trades tending to eliminate the merchant or to affect seriously his interests.

Some variations in the trade done by retail shops are given in Smith's *Retail Trade*. Only one general shop in three appears to do sufficient business to justify an assistant. Textile and clothing shops average the highest number of assistants (2·4 per shop) ; boot

and shoe shops, drugs and druggist shops, both average two assistants. General and mixed businesses have the smallest average of assistants per shop (0·3).

The highest number of persons served per shop is in the drug and druggist group with 4,000 ; clothing shops have an average of 540 customers per shop ; general and mixed businesses also 540 ; grocery and provisions, 430.

We turn now to consider the most important groups of retail shops, together with, where information is available, their channels of supply. This is set out in Table 31 on page 144.

This table is by no means comprehensive, but it does bring out some important facts of the producer-wholesale-retail structure. We will deal with fish and meat trades first.

According to a recent report on the " White Fish Industry " there has been a considerable change in the organisation of the white fish industry. The industry has become much more concentrated largely as the result of railway developments. A main channel for the sale of white fish is the fish friers who handle from 50 to 60 per cent. of all white fish landed, which was valued at approximately £16,000,000 in 1937. They also fry about 20 to 25 per cent. of the potato crop, which varies between approximately 3,800,000 and 4,500,000 (for Great Britain) tons gross in any main crop season. The value varies considerably from season to season and may also be anything between £15,000,000 and £20,000,000.[11]

Each section of the industry has its own form of association. The trawler owners and the merchants each have a Federation. The fish friers also have a National Federation which has achieved substantial recognition, but the retail fish salesman is completely unorganised, although there is the development of important multiple stores—such as Mac Fisheries—

TABLE 31

NUMBER OF MANUFACTURERS, WHOLESALERS AND RETAILERS IN CERTAIN TRADES.

(Compiled from Articles in the *Manchester Guardian Commercial.*)

SHOPS.	Estimated Number of Manufacturers.	Estimated Number of Wholesalers.		Estimated Number of Retailers or Outlets.
		Agents or Dealers.	Merchants.	
FOOD :				
Fish	—	—	1,545 *	16,000
Fish friers	—	—	—	30,000
Milk	145,000†	—	—	94,000 ‡
Grocery	920	—	1,000	60,000–90,000
Sweets	400	—	1,000	250,000
Meat	—	—	—	33,000–45,000
Greengrocery	—	—	—	30,000
HOUSEHOLD :				
Coal	2,000 ‖	7,000	10,000 §	27,000
Chemists	—	—	—	14,000
Furniture	—	1,500–2,000	—	15,000 (?)
CLOTHING :				
Drapery and Fashions	—	250–300	—	30,000
Boot and Shoe	690	—	500 (?)	20,000
Men's Wear	—	—	—	6,000
MISCELLANEOUS :				
Newspapers	—	—	350–400	45,000
Paper	300	3,000	700–800	—
Stationery and Fancy Goods	—	600	1,200–1,300	20,000
Electrical Equipment	—	590	—	5,500
Jewellery (B'ham)	1,000	—	350–400	8,000
Cycles	170	—	—	16,500
Motor Cycles	42	—	—	2,000
Sports	141 ¶	—	—	4,000

* At five major ports.

† Milk Marketing Board. *Five Years Review*, 1933–38, p. 10, registered dairy farmers, but not all sold milk at that date (Sept. 1938).

‡ Including over 60,000 producer-retailers, of whom, however, it is doubtful if more than 30,000 concerned solely with milk, *ibid.*, p. 11.

‖ Coal-mines.

§ Excluding 1500 merchant shippers.

¶ Belonging to the Federation of British Manufacturers of Sports and Games Ltd., price protection scheme.

which are integrated with the fishing side of the industry.[12]

The home meat market is largely dominated by imported supplies. About half the beef and well over half the bacon eaten in this country is imported. The beef import trade (in British hands) is largely controlled by the British and Argentine Meat Co. Ltd., which is, in turn, controlled by Union Cold Storage Ltd., which is again associated with a chain of some 2000 retail shops out of a total of more than 33,000.

The dealers in British meat have two organisations : the British Association of Meat Wholesalers and a National Federation of Meat Traders.

The control over the supply of milk has been mentioned in the chapter on " Statutory Organisations." It probably suffices to point out that the Milk Marketing Board negotiate, for all producers of milk (including producer-retailers), the prices at which milk shall be sold to all milk buyers. The main body negotiating for all distributors is the Central Milk Distributive Committee,[13] although there are other organisations, such as the National Association of Creamery Proprietors and Wholesale Dairymen.

Among the several points of interest in the clothing and shoe trade two facts stand out : first, that a number of important manufacturers are also retailers ; and second, that many of the manufacturers have small businesses which tend to be dominated by the large buying organisations.[14] In this group of industries there is a Boot Trade Research Association, a feature which is becoming markedly more common and important in industry generally. The wholesalers have a distributors' association and the Multiple Shoe Distributors have an association of that name, while once again there is no organisation for the unit shops. Again, in drapery and fashion goods trade there is a Retail

Distributors Association, but it mainly represents the leading department stores.

In the household goods trade—particularly in furniture—there is an almost complete absence of wholesalers except for soft-furnishing. Direct trading between manufacturer and retailer dominates the trade, although there is a dealers' organisation, the National Federation of Home Furnishers, with a relatively small effective membership.

Pharmaceutical chemists are the professional men of the retail trade, though professional status is also being rapidly acquired by opticians who are active through their several associations, such as the British Optical Association and the Spectacle Makers' Association.

The druggists' business is intimately associated with the trade in proprietary articles. The Proprietary Articles Trade Association has an interesting constitution with an executive which controls routine administration. The executive consists of twelve representatives of each constituent group of the Association : the wholesalers and the retailers. The real purpose of this Association, which has some competence to succeed, is " to protect the price level." As in the motor trade, the weapon employed is the " stop list " which operates to prevent retailers obtaining all proprietary articles if they persistently sell below the agreed price for any proprietary article. Incidentally, the Association has also "distinguished" itself by an agreement with the co-operatives by which no dividend is paid on P.A.T.A. lines.

Certain features of the coal trade only need be mentioned here. Some 250,000,000 tons of coal are produced in Great Britain annually from some 2,000 pits. Domestic users account for some 40,000,000 tons, and gas and electricity supply companies for another 30,000,000 tons, and about 35,000,000 tons

are exported. The remainder is used by home industry and our own shipping.

There are about 7,000 coal dealers in the trade, about 10,000 merchants and about 27,000 coal retailers. In addition there are some 1,500 shippers in the export trade.

Coal owners belong to the Mining Association of Great Britain, the dealers to the Chamber of Coal Traders (which is affiliated to the Coal Merchants Federation), while there is also a National Council of Coal Traders. The exporters, however, belong to a separate organisation, the Sea-Borne Traders' Association.

There is a good deal of overlapping in the miscellaneous group of newsagents, stationers, sweet shops, tobacconists and fancy-goods shops. The volume of business done by newsagents alone [15] may be gauged from the fact that some twelve or thirteen million morning papers and some five to six million evening papers are sold daily ; while the Sunday newspapers' sales are between fifteen and sixteen millions, apart from the sale of periodicals. And we have seen that Clark estimated the retail sales of newsagents at £30,000,000 in 1932.

As for other trades, there are associations of newspaper distributors, the most interesting and important being the Wholesale-Retail Joint Boards for London and the Provinces. This parallels the combination of industrial concerns, and is similar to the more rigid form of organisation for the sale of proprietary articles by chemists.

These brief comments on the main forms of association in particular trades give a pointer to the tendency for arrangements to exist among all distributors—at any rate in the wholesale trade—and which have more definite objectives than mere Chambers of Commerce. Retailers' organisations do not exist to the same degree

as in the wholesale trade, and where there are associations [16] they often cater for the more powerful groups of retailers, such as the multiple concerns or departmental stores, than for the ordinary unit shops. In addition, the tendency for manufacturers and importers to control their own retail trade has made every form of association less necessary for them. And, moreover, even where retail trade organisations do exist for the ordinary unit shop, it is found that the membership represents a small fraction only of the shopkeepers in the trade. But this is really only a parallel to the difficulty of an industry, such as the cotton industry, where the units are relatively small and too numerous to succeed in getting any working arrangement to meet the difficulties from which the whole trade suffers. Where there are definite arrangements as to price or other conditions of sale, the impetus is often provided from the manufacturing and wholesaling end rather than by the retailers themselves. The exception to this is, once again, where it is relatively easy, as with departmental stores, to come to a working arrangement.

A discussion on distribution and markets in a country such as Great Britain would be incomplete without some account of the important produce markets and the export trade.

The markets in this country may be divided, roughly, into three groups : country markets (and fairs) where the agricultural produce changes hands mainly on a cash basis, such as those at Hereford, Chichester and Exeter ; [17] town markets for the wholesaling of home-grown produce, such as Smithfield and Covent Garden ; [18] or for fish, Hull and Grimsby and Billingsgate ; and, finally, the produce markets or exchanges where internationally produced goods, like cotton and cereals, are bought and sold, and where the distinctive feature is the dealing in " futures." [19]

The more highly organised dealings of these produce exchanges do not, as a rule, take place between the original seller and buyer for use, but through middlemen who are frequently called brokers and act as agents between buyer and seller. The main conditions for such dealings are that the commodity is capable of being sold on warrant and can be graded, and that it is subject to fluctuations in price. The main, internationally traded commodities are cotton, wheat, cereals, coffee, metals and timber. The bulk of the exchange dealings are centred in certain towns, such as Chicago and Liverpool. The newest comer to the coterie in this country is the Fur Exchange, which was opened on 22nd February 1933 and has now replaced its former rival, Leipzig.[20]

Finally, turning to the export market, the goods for which are distributed through merchants in the United Kingdom, or sold through the manufacturers' own marketing organisation abroad, or through some agency or joint marketing organisation established in the importing country. The exporting structure has, however, altered considerably since the heydays of the nineteenth century, and while the causes are complex they are without doubt linked up with the general decline in international trade in post-war years, the relative decline and absolute loss of export markets for British goods and the development of huge combines in this and other countries which have set up their own export market organisation and have supplanted, to some extent, the two-way trader. Not least in importance, though of much more significance in very recent years, has been the growth of exchange restrictions, bi-lateral trade agreements and direct interference by some State organisations in the terms and conditions of the actual trading.

The following indices of the quantum of trade and

the prices in gold since 1929 gives an excellent indication of the trend of international trade :

TABLE 32

INDICES OF WORLD TRADE 1929–37

1929 = 100.

	Volume.	Value in Gold.
1929	100·0	100·0
1932	75·0	52·5
1935	82·0	42·5
1937	97·0	47·5

The decline in the volume of internationally traded goods and the even more considerable decline in value was (despite the fact that we enjoyed, for a time, more favourable terms of trade), adverse to the industrial position of this country which exports about one-quarter of its industrial production, particularly because of our dependence upon shipping dues and interest on capital invested overseas.[21]

The table opposite shows the imports and exports in four recent years.

These statistics show the well-known facts that the bulk of our imports consists of food, drink, tobacco, raw materials and articles mainly unmanufactured. The importance of the decline in prices which had the effect of "squeezing" profits on the anvil of costs can be gauged from the fact that if imports into, and exports from, the United Kingdom for 1935 were revalued, not on the basis of the declared value of that year but on the basis of average values in 1930, then they were £1,012,113,000 and £518,383,000 respectively.[22]

TABLE 33

VISIBLE IMPORTS AND EXPORTS OF THE UNITED KINGDOM.

	IMPORTS.*				EXPORTS.* †			
	1935.	1936.	1937.	1938.‡	1935.	1936.	1937.	1938.‡
	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000
Class I. Food, Drink and Tobacco .	355	382	431	431	32	36	39	36
Class II. Raw Materials and Articles mainly unmanufactured	212	248	315	248	53	61	65	57
Class III. Articles wholly or mainly manufactured .	185	213	275	234	329	341	405	365
Totals, including Classes IV. and V. . . .	756	847	1,027	920	426	441	521	471

* Annual Statement of Trade.

† Exports of imported merchandise amounted to £55,000,000 in 1935, £61,000,000 in 1936, £75,000,000 in 1937 and £62,000,000 in 1938, of which the major portion belonged to Class II.

‡ *Trade and Navigation Accounts*, p. 4, December 1938.

The discrepancy between imports and exports or the adverse balance of trade on "visible" account is offset by the payments due to this country for shipping dues, interest on capital invested abroad and the money spent by visitors to this country, together with interests and commissions paid on account of short-term loans and the use of our financial machinery. Estimates of these "invisible" exports are subject to considerable error, and therefore any statement of an adverse balance of as little as £18,000,000 in the year 1936 on both "visible" and "invisible" account must be accepted with reserve.

On the other hand, if this estimate of an adverse balance continues to increase, it may mean that we are

paying for some of our imports by the sale of capital assets held abroad,[23] or that investment or short-term lending is being made in this country which will subsequently have to be returned and for which interest must be paid.

Details of the estimated value of our "invisible" exports and the decline in the volume of exports of certain commodities, which comprise a considerable proportion of our export trade mainly in manufactured goods, are shown in the following two tables :

TABLE 34

"INVISIBLE" EXPORTS.

(Compiled from *Board of Trade Journal.*)

	"Invisible" Exports.				1935 Exports revalued on the Basis of 1930 Values.
	1935.	1936.	1937.	1938.	
	£'000	£'000	£'000	£'000	£'000
Estimated Net National Shipping Income	70	85	130	100	84·4
Estimated Net Income from Overseas Investments	185	205	220	200	223·0
Estimated Net Receipts from Stock, Interest and Commission	30	30	35	35	36·9
Estimated Total Net Receipts	285	330	395	335	343·3
Estimated Total Credit on Debit Balance	+ 32	− 18	− 52	− 55	—

The table opposite shows that exports of coal which fell off with the depression did not increase with recovery. The same is true of all the iron and steel manufactures, textile machinery and locomotives and

parts. The increase in motor vehicles and chassis was, however, notable.

Among the textile goods, cotton yarn, though not recovering to the old level of 1929, has not suffered so severely as coal exports, though cotton piece goods has suffered even more disastrously. In fact, throughout these vastly important markets decline in export is the one notable factor apart from motor vehicles and chassis.

TABLE 35

EXPORTS OF CERTAIN BRITISH GOODS.

(Compiled from the Bank of England Statistical Summaries.)

ITEMS AND MEASURE.		1929.	1932.	1937.	1938.
COAL, IRON AND STEEL PRODUCTS:					
Coal	'000 tons	60,267	42,750	40,338	35,861
Iron and Steel Scrap	'000 tons	424	107	234	186
Pig Iron and Ferro-Alloys	'000 tons	545	128	167	101
Railway Materials	'000 tons	610	106	208	158
Total Iron and Steel Mnfrs.	'000 tons	4,380	1,979	2,574	1,918
Textile Machinery	'000 tons	127	63	73	71
Total Machinery	'000 tons	562	302	438	460
Locomotives and Parts	tons	40,316	3,154	7,550	8,376
Motor Vehicles and Chasses	No.	26,527	29,194	105,658	89,668
TEXTILE GOODS:					
Cotton Yarn	'000 lb.	166,638	141,663	159,028	122,933
Cotton Piece Goods	mill. sq. yds.	3,672	2,198	1,921	1,386
Wool Tops	'000 lb.	32,737	42,754	40,180	32,458
Woollen and Worsted Yarns	'000 lb.	46,696	38,025	32,323	27,793
Woollen Tissues	mill. sq. yds.	108	54	80	59
Worsted Tissues	mill. sq. yds.	47	28	43	32
Linen Piece Goods	mill. sq. yds.	72	66	83	52
LEATHER BOOTS AND SHOES	'000 doz. pair	1,006	640	394	375
PAPER AND CARDBOARD	'000 cwt.	5,647	3,870	4,390	3,529

It can easily be seen how far from "recovery" is the export trade in coal, iron and steel, textile machinery and textile goods. Motor vehicles and chassis exports, which are in fact a recent development in the export trade, show an appreciable improvement in 1929 exports, though cotton yarn and wool tops

have not decreased to an extent proportionate to the other textile goods.

There has also been a relative change in the destination of our exports. Whereas in 1913 we exported 37 per cent. (by value) of our merchandise to British countries, in 1937 we exported 48 per cent. ; even in 1929 it was already 44 per cent.

Turning now to describe how all this has affected the structure of the export trade, we find that the number of British export merchant houses have declined rapidly in recent years. True, a number of amalgamations have taken place, but that is not the complete explanation of the fact that their numbers fell from 3,089 in 1907 to 2,795 in 1917, to 2,782 in 1927 and then most drastically to 1,993 in 1937.

The decrease up to 1917 was probably due to war conditions. Between 1917 and 1927 there was a marked stability, despite the fact that those were the formative years for the growth of direct trading and hence for the exclusion of intermediaries. But the rapidity of the decrease between 1927 and 1937 can only be explained by reference, not only to amalgamations, but to the decline in world trade, the fruition to some extent of direct trading, and the development of joint selling agencies.

While the position has altered within recent years and it is now possible to distinguish five broad categories of merchanting services, it would be wrong to leave the impressions that the export houses are no longer of considerable importance. They, and particularly the merchant house proper, which maintains branches overseas and engages in two-way trading (*i.e.* act as agents for imports and exports), are still of outstanding importance, though they have added agency business for steamship companies, insurance and banking business to their activities.

Owing to the dependence of this country on imports,

particularly of raw materials and food-stuffs, the two-way traders do more import than export business, and although they attempt to develop both aspects of their business, they operate successfully despite the decline in the export trade.

Equivalent to the export trader there is, of course, a type of merchant who specialises in imports ; but both types operate in similar fashion to the two-way or dual trader, though usually the one-way trader is interested in other activities. In addition, there are merchants acting *in* the exporting country only and trading through their local connections, while there are merchants who are essentially commission agents, acting for a principle and not themselves taking delivery of the goods.

The important new factor is the combines which have set up direct exporting organisations, and have undoubtedly taken an important part of the trade from merchant specialists in handling particular commodities, and moreover have to some extent become general merchants, handling not only the produce of their principles but also any produce obtainable. But their importance is not such as to mean the future disappearance of the specialist trader, and particularly the dual trader. The latter can work on moderate charges, and he is in a strong competitive position and gives mobility to finance. Moreover, although the large exporting firms tend to sell direct, small firms must continue to act through agents. There is, however, an important corrollary to this : " Neither the overseas sales organisations of the large firms nor agents who represent the small manufacturers are interested in the two-way trade : they are essentially channels for one-way selling." Thus the fact that import trading is so important gives the merchant house additional advantages : it is provided with a relatively firm basis for its business in which these new organisations do not

compete, and the two-way trading provides him with useful business contacts and, as we have said, reduces his overheads.

The net effect is that the dual traders alone are keeping trade "liquid" by developing both sides of the business. But whatever the drawbacks, from the viewpoint of the national economy, of the tendency to operate one-sided trading by large business organisations, this is a factor which has been developing over a long period and is likely to continue. Even a representative of the Cotton Spinners and Manufacturers' Association, in the middle 'twenties, is reported as saying: "It is unusual for the actual manufacturer and spinner to export, but there is a growing tendency to do so, the object being to eliminate the middleman as far as possible." An account of these factors in international trade must include a word on the widespread complex of hindrances and assistance provided by governments: embargoes on exchanges, quantity regulation, tariffs, subsidies, bilateral agreements and the development of secondary industries in newer countries and the "forcible revival of agriculture in the older industries." [24]

In this country the Government has assisted exporters in providing, since the war of 1914–18, the Commercial Intelligence Service of the Department of Overseas Trade. Since 1931, exporters have had the advantage of the provision of insurance facilities and of medium-term credits supplied by the Export-Credits Department.

Government has also attempted to assist industry in this country, and in turn the export trade, by negotiation of trade agreements, the most important being the recently concluded Anglo-American Trade Agreement. But there has been no approach to such regulations as in Germany where export trade is confined within two broad categories of agreement, "Payment" and

"Clearing" agreements. The "Payment" agreements are concluded with countries like Great Britain, with free exchange. "Clearing" agreements with other countries, which like Germany itself, is without free exchange. The result is that exports are determined by the quantity of imports required from any country with which clearing agreements have to be arranged. Multilateral trading becomes thereby almost impossible. But the trade of the United Kingdom was, until the war, relatively free, and exporters and importers were largely left to find their own salvation.

In 1925 the Institute of Export was founded as a professional organisation devoted to the purpose of assisting the export trade of the United Kingdom. The Federation of British Industries—incidentally the largest association of manufacture in the world—maintains an export research staff for the service of its members. British industrialists and British exporters are no longer relying solely on the merits of their products to obtain markets. They are finding that the competition to be faced is not between individual traders but between traders of this country and the State-supported action of traders in "totalitarian" countries, and for this reason, too, are being forced into organised dealing, as opposed to trading through individuals.

NOTES

[1] In particular, *Trial Census of Distribution in Six Towns.*

[2] Smith, *Retail Selling*, pp. 140–1, gives the factory value of retail turnover at £1,556,000,000; total value of retail turnover at £2,299,000,000 and the cost of wholesaling and transport at £152,000,000; with the total cost of retailing at £586,000,000.

[3] Clark, *op. cit.*, p. 152.

See also *Manchester Guardian Commercial*, 5th April 1935, where an estimate by Mr. Schaeffer, for 1929, shows that on the basis of the price to the consumer 9·9 per cent. goes to the wholesaler and the average gross profit of the retail trade was 28 per cent.

[4] By competitive goods is meant those which the buyer may substitute for each other; non-competitive goods are those which will not be so substituted.

[5] The most important estimates are as follows: Neal, 500,000; Dobbs, 541,000 to 641,000; Hoffman, 1,000,000; while Smith estimates that for England only, and excluding public houses, restaurants, fried-fish shops and boot-repairers, there were, in 1932, according to Kelly's Directories, 530,000 shops. But basing this estimate on the United States' Census of Distribution; 750,000 shops.

[6] *Economist*, 12th July 1930. An estimate by Mr. Charles, *Chain Store Development*, gave 2,242 organisations, in twenty-five classes of trade operating in all 32,025 branches.

[7] *Economist*, 12th July 1930, p. 119. There have been, of course, developments since this date and tailoring has now become prominent in this connection. But these statistics give a general picture.

[8] There were 3,544 in U.S.A. in 1937.

[9] But they have exaggerated the decline in the use of middlemen, by direct dealing with manufacturers.

[10] *Ministry of Labour Gazette*, January 1939. "Co-operative Societies in 1937."

[11] *Economist*, 3rd June 1939, pp. 553–4. The total of British White Fish landings in 1937 was valued at £15,934,000, including herrings which were valued at £2,196,000, apart from shipments from Northern Ireland and from other sources.

The gross production of potatoes in Northern Ireland is approximately 700,000 tons per annum.

[12] Of course, one factor not mentioned in the remarks on the distribution of fish and applicable to other commodities, is the important markets, such as Billingsgate. But a reference is made to markets later, see pp. 148–9 above.

[13] *Report of Reorganisation Commission on Milk for Great Britain*, p. 245 et seq. The volume of total sales exceed 1,200,000,000 gallons of Great Britain-produced milk.

[14] *Manchester Guardian Commercial*, 19th August 1938, p. 170. Mr. W. K. Townley, a past-president of the National Union of Boot and Shoe Operatives remarks: "The industry is getting into the hands of buyers, who dictate prices, with serious results to both manufacturers and operatives."

[15] Of course, an unknown but considerable volume of newspapers are sold in the streets and through kiosks, which cannot properly be regarded as shops.

[16] Davies, W. T., *Trade Associations and Industrial Combination*, p. 56. There were over 2,000 trade associations in 1932.

[17] See Publications of the Ministry of Agriculture and Fisheries; *Markets and Fairs*, Economic Series, Numbers 13, 14, 15, 23 and 26.

[18] Ministry of Agriculture and Fisheries; Economic Series No. 39 and No. 25 respectively.

[19] Smith, J. G., *Organised Produce Markets*. The system of future trading is based on contracts on the part of the seller to deliver, and consequently on the part of the buyer to receive, at a time subsequent to the making of the contract, a certain quantity of the produce at a stipulated price.

[20] See O. K. Hobson, *How the City Works*. This is a good example of tolerance being not only its own reward, but well rewarded.

[21] It is true, of course, that we were able to maintain the standard of living for those who were employed because of the cheapness with which raw materials and food-stuffs were purchased; at any rate up to 1933.

[22] The index number of average values of imports and exports for 1935 are (1930 = 100) 74·7 and 82·9, while that of volume (1930 = 100) 96·9 and 90·8. In other words the prices of imports fell more heavily than exports, but the volume of imports did not fall so drastically as exports in those years. But we have already pointed out that an additional and important factor was the fall-off in "invisible" exports, particularly shipping dues and interest payments.

[23] This possibility has been increased by the outbreak of war.

[24] See Appendix 1.

CHAPTER VII

THE FINANCE OF INDUSTRY

(*a*) Government and Finance

BEFORE plunging into an account of the present-day conditions, it may assist if we put forward what may be termed the classical view of the relationship between Government, finance and industry.

Underlying the diversity of functions of the finance houses there are two essential markets—the money market and the capital market. The former is concerned with the provision of short-term and the latter with long-term credit.[1] The provision of short-term credit is subdivided into the provision of funds for very short periods, the essential feature of which is " money at short call " supplied for the use of discount houses ; and the short-loan market, the funds for which are mainly supplied by the commercial banks by means of loans and advances for the temporary accommodation of commerce, industry and agriculture. The capital market is the mechanism for obtaining the use of " savings " for new capital issues or additional issues of old securities.

The part that Government was " invited " to play can be easily imagined from a quotation from Bagehot : " The best thing undeniably that a government can do in the money market is to let it take care of itself." [2]

The Bank of England was regarded as a private bank with the right of note issue and certain responsibilities for the control of credit, and it relied upon the

Government to empower the issue of notes beyond the statutory limit in times of crisis.[3]

Acting as a link between the Bank and the commercial banks were (and are) the discount houses whose function of discounting bills of exchange was a necessary corollary to the acceptance of bills by the acceptance houses. The business of the acceptance house is to examine bills ("smell" them is the jargon of the market) before accepting them ; by so doing it gives the bills the guarantee of approval of a house of first-class financial standing with a knowledge of the market. These bills are not held for maturity and the discount houses, after they have been "acepted," either buy them outright for resale before maturity, or sell them immediately for the payment of a commission. These discount houses use their own capital, but to an important extent borrow money from the commercial banks "at short call" as well. The fact that there are times when the commercial banks need these loans means that the discount houses may have to go to the Bank of England and thus contact is made between them. The commercial banks employ their funds so as to secure a liquid position to meet the calls of their depositors. To do this, their deposits are laid out on an actuarial basis between till-money, money at the Bank of England, money at short call, loans and advances and investments. This is also the order in which the banks' money tends to be both decreasingly liquid and increasingly profitable.

Mention of investments lead us directly to the capital market. But the banks' interest in investments is in the purchase of securities already issued and, in the first place, it is the new issues which must be considered.

The famous issuing houses were mainly interested in arranging new issues for foreign governments, municipal authorities [4] or large concerns such as the

railways. Thus, strange as it may seem, they have—even to-day, though to a less degree—relatively little concern in any consideration of the finance of British industry. That part of the organisation by which the great bulk of the joint-stock companies were (and are) floated is the "ephemeral floating companies usually specially formed for the purpose of selling a venture to the public, and dissolved when the purpose is carried out." These are the company promoters. In addition, there were, and are, the Trust and Finance Companies permanently engaged in financial operations and sometimes also spoken of as Issue Houses.[5]

Associated with those who play a part in the actual issue of new share capital to the public are the underwriters, banks, insurance companies and financial houses, who agree to be responsible for a proportion of the issue if it is not "fully taken up" by subscribers. For this service a commission is paid.

As a corollary to the existence of securities is the Stock Exchange—a market for the exchange of old securities. Though it may be noted here that extensive as is this organisation in London and provincial centres, it does not enable all securities to be marketed. Even on the London Stock Exchange some securities, as Lavington pointed out in 1921, "have no active market. . . . Provincial markets are naturally far less effective; many small but sound industries can neither be bought nor sold within any reasonable margin of price or period of time." [6]

It is necessary to add that the insurance companies and the building societies [7] were by 1921, when Lavington published his *English Capital Market*, becoming important as purveyors of capital for the investment of savings which previously had been either "wasted" or handled through other channels.

Thus, in the provision of credit, a little consideration shows that certain gaps exist. While the business

of the commercial banks must necessarily be in the main to provide short-term loans, their aloofness from the direct consideration and investigation of industrial problems have probably limited their usefulness. Moreover, there is a distinct need for the provision of intermediate credit, *i.e.* credit for a period of one to five years, for which none of the old credit houses have catered to any degree. Long-term credit for relatively small firms not wishing and not needing a large issue has been another problem not provided for by any of the old institutions. There is also the pressing need for machinery for home capital investment as good as that for foreign issues. Finally, as the Report on Finance and Industry (1931) remarks, "closer connection between British Industry and the City of London would benefit both." The City has tended to regard its function as one isolated from the problems of industry, and it will appear that, for good or ill (partly under the direction of Government), this attitude is disappearing and numerous changes are occurring.

Nowhere are these changes between pre-war and post-war conditions more marked than in the relationship of Government, finance houses and industry and agriculture. While amalgamations and combinations have proceeded in industry and that effective anomaly, "compulsory co-operation," has been introduced into agriculture, Government's part in finance has become emphatic, more directive and more permanent.[8] The relations between finance and industry has also taken a new turn because of the direct interest and control exercised by the Bank of England in industrial affairs, because of the increased importance of the insurance companies, building societies and the financial trusts as purveyors of finance, and because of the changed attitude in the commercial banks to the problems of the customers.

Savings for industry are now provided to an unpre-

cedented extent by small people who are buying insurances and houses, or are seeking some form of security for their investments, and are therefore relatively uninfluenced by the rate of interest.

Broadly speaking, before the war of 1914–18 it would have been justifiable to initiate an account of the relationship between finance and industry by references to the Bank Charter Act of 1844 and the collaboration which occurred from time to time between the Bank of England and the Treasury. Comparatively no emphasis would have been placed on the latter. As late as 1931 this might still have been a correct procedure, with increased emphasis on the importance of the Treasury, and a reference to the Currency and Bank Notes Act of 1928. To-day, it is some measure of the change that any account must commence with the Treasury and its control ; collaboration with the Bank of England is continuous ; " interference," direct or indirect, is met with at almost all points.[9]

Since we went off gold in 1931 and pursued a managed currency policy, finance and, in turn, industry, commerce and agriculture have been deliberately directed by Government. A new epoch in British monetary and banking history began in 1932. Government developed a policy of cheap money, and Mr. Chamberlain claimed the credit for thus facilitating the conversion of War Loan. Government interfered in home and foreign lending by the development of the Exchange Equalisation Account and, more recently, dominated the new investment market by the issue of Defence Loans. The very growth of the Budget of April 1939 which, including loans, accounted for the expenditure of £1,500,000,000,[10] indicates more simply and completely than anything else, Government importance even before the war.

The acceptance houses survive partly by dealing in Government bills and the Government department for

export credits does much of the work formally undertaken by the finance houses. Probably alone in its "glory," the Stock Exchange is not directly affected, though recent legislation in regard to share-pushing and the unofficial committee which now function, mean that it is not uninfluenced by current trends.[11]

With the disappearance of the supposedly semi-automatic gold standard, there also disappeared any fiction that Government was not interested in finance and the Bank of England. The control over the Exchange Equalisation Fund and the financial market made it clear that Government intended to take at least a semi-permanent interest in financial affairs.[12]

The Exchange Equalisation Fund marks one of the first departures from financial laissez-faire. The Foreign Exchange Department was set up by Parliament with funds amounting to £175,000,000 and which were subsequently increased to £575,000,000. The declared purpose of the fund is to even out day-to-day movements in foreign exchange rates, but its actions appear to have been affected more by long-range considerations of preventing any untoward fluctuation in the value of sterling. This interpretation received the confirmation of the Tripartite Agreement between the United States, France and Great Britain, when France depreciated the franc in terms of other currencies in 1936.

This fund is of importance to the export trade as it maintains stability of exchange rates. But it is impossible to trace all the effects of the Fund, nor is it possible to give an account of all the committees which now function.[13] It must suffice to point out one fact of supreme importance : the informal control exercised by the Bank of England, with the approval of the Treasury, in the City [14] is a direct counterpart to the control exercised by the Treasury over the Bank of England.

The provision of finance takes the form of long-, medium- or short-term credits. In the past it was usual to consider only long- and short-term credit, but in recent years special provision has been made to meet the demand for medium-term credit.

We turn now to consider, in some detail, the relationship between finance and industry. The dominant institution in the money market is, of course, the Bank of England. Its most important " satellites " are the six huge commercial banks, the foreign banks and the banks specialising in discounting and accepting bills.

While the primary function of the Bank has always been (and still is) to control the currency and credit of the country, it now has an interest in industry. The Bank developed as a banker's bank and as a Government bank. It restricted itself to a special clientèle, and its banking interests which competed with the commercial banks were allowed, indeed encouraged, to decay. The nine branches of the Bank confine their activities to collaborating with the clearing houses and/or act as local clearing houses, while their main additional duties are to receive Government funds and to retire notes from circulation.[15]

Since 1931 the duty of the Bank to be responsible for the country's gold reserves has been largely in abeyance, because large amounts of gold have been under the control of the Exchange Equalisation Fund. But the duties of the Bank in respect of the right to issue notes, and to regulate the supply and cost of credit, remain ; though this latter function has become part of the Government determined policy of " cheap money." Of course, it is through the Bank that this policy has been pursued.[16]

In mentioning these changes it would be most unrealistic to omit a reference to the change in personnel of the Bank directors. In the past, the tradition was to

draw the directors from the private banking houses of the City.[17] To-day they are drawn from insurance companies, railway companies, building societies, shipping companies and even the commercial banks. Moreover, the textile, mechanical and other industries contribute "their" directors, though "representation" is not in proportion to their importance. So far, however, there has been no tendency to draw into the directorships the representatives of labour.

It would be wrong to think that the depression of 1929–32 brought about the changes in the Bank. They had been proceeding over a long period. By 1929 the Bank had already broadened the field from which its directors were drawn, and was interested in several rationalisation schemes. The Armstrong-Vickers merger, the Beardmore Reconstruction, the Lancashire Cotton Corporation already existed, and in November 1929 the Bank was responsible for the Securities Management Trust. What followed merely continued a new and permanent factor in industrial life. What became accentuated—to use a colloquialism —was that industry was finding it more difficult to pull itself up by its "own socks," and the Bank assisted. Indeed, industry and the Bank came into much closer contact, and the former looked more and more to the Bank for assistance and advice.

The activities of the Bank which have secured most publicity are probably those in connection with the Lancashire Cotton Corporation, possibly because of the plight of the industry. But this exemplifies the interests and the activities of the Bank. The Corporation was founded in March 1929 and, under the direction of the Bank, assistance has been given, not spasmodically, but in pursuance of a predetermined policy of rationalisation. Cotton concerns have been examined, and offers of absorption have been made to some firms, while others have been rejected as "impossible to be

turned into efficient units."[18] There has been no public issue, but shares have been allotted to creditors and shareholders as payment for mills taken over.

By 1930, therefore, the Bank had interested itself in business, without, however, having necessarily invested its own capital ; but it gave assistance, guarantees and direction. In November 1930 the Bank instituted the Bankers Industrial Development Company, with a nominal capital of £6,000,000, divided into forty-five " A " shares and fifteen " B " shares, each unit being £100,000. The " A " shares were subscribed by banking and financial institutions, including practically every home bank and issuing house of first-rate importance. The " B " shares were subscribed by the Securities Management Trust. Each " B " share carries three times the voting rights of an " A " share, and thus the Bank of England, through the Securities Management Trust controls half the voting strength. And thus the Development Company is eventually a partnership between the Bank of England and the most important city finance house. The objects of the Company is to examine schemes of rationalisation for basic industries as a *whole* or for *regional sections* of the industry. It is not intended that the Company should compete with business activities of existing financial institutions. If schemes are approved, then the Company assists the industry to secure the necessary capital through existing agencies. The Company has continued to pursue this policy and has been responsible for issues made to such organisations as the National Shipbuilding Securities Ltd. and to the Lancashire Cotton Corporation.

Thus, if the Bank and the commercial banks have maintained their traditional methods of doing business with industry, they have modified their viewpoint in favour of interesting themselves in what happens to industry,[19] and if not going so far as to lend on long-

term to individual businesses, then taking action to assist an industry or part of one, in obtaining long-term financial assistance. Indeed, in so far as some basic industries form regional monopolies, the distinction between an industry and a business is wearing somewhat thin.

The Bank is being more than merely helpful and tendering advice. It is playing a strong and active part in industry. By 1938 the Governor of the Bank became chairman of the Committee of Control of Richard Thomas & Company. In 1939 he was chairman of the Committee exercising voting rights in respect of shares of John Summers & Sons Ltd., an old-established and hitherto privately owned tinplate business. The United Steel Company Ltd. and the Bankers' Industrial Development Company took part in financing a new mill for them, and the net result for these and other developments in the steel industry is that the Bank of England, in the person of the Governor, has a dominating voice in the control of a large proportion of the steel-producing capacity of the country.

The Bank *is* in industry and is concerned with long-term investments,[20] and even the commercial banks have a similar, though minor, interest through their holdings in the Bankers' Industrial Development Company.

Some account must be given of the discount market before passing on to deal with the commercial banks. The discount houses have two functions. First, to " smell " a bill, and second, to act as a buffer between the Bank of England and the commercial banks whose spare cash they borrow. But the London discount market has been far from indispensable in recent years. The various standstill agreements between countries, which affected the acceptance houses most,[21] and a 2 per cent. bank rate during the last seven years, has meant considerably reduced business and not so

lucrative business for those banks specialising in the bill trade.

The market consists of three public companies, five private companies, fourteen partnerships and eight running brokers [22] with resources amounting to probably £15,000,000. They buy bills or short-term Government securities on their own account, and against these bills obtain day-to-day or short-call money from the banks at low rates. But whereas this function was at one time useful to the banks, they are now not so indispensable as before the war.

Shortly before the war the Governor of the Bank interviewed some of the owners of the smaller discount houses and requested them to amalgamate or to increase their capital, and suggested that the scope of their operations in short-dated bonds should be considerably reduced. This illustrates the influence and strength of the Bank in the City because, if its suggestion were not complied with, it could withhold the privilege, at present extended to these houses, of borrowing from the Bank at the minimum rate of half of one per cent. above bank rate.[23]

The change in the discount market may be gauged from the fact that whereas in 1913 the volume of ordinary bills dealt in was about £250,000,000, this had dropped to £100,000,000 by 1937. Treasury bills, in the meantime, have leapt into importance, and the market has changed from dealers in commercial to dealers in Treasury bills,[24] though they are really privileged intruders " partly through the goodwill and tolerance of the banks."

The commercial banks, working with the Bank of England, operate a clearing-house system which is the mechanism used for cheque payments. With the acceptance and discount houses they arrange payments for raw materials and other goods during the period they are being produced, transported or manu-

factured into " finished " goods. Their most important functions, however, are to collect savings in the form of deposits from the public (repayable on demand or at notice), and to advance money against security for short periods. A considerable part of the deposits, however, are invested.[25]

The concentration of control among the commercial banks is recent history. During the nineteenth century numerous banking fusions were registered and concluded almost entirely by the extension of the joint-stock banks, which absorbed local firms and acquired a London House with a seat on the Clearing House of the City. A late example was the interlocking of the directorates of the Royal Bank of Scotland and William Deacons' Bank, the latter having a seat in the Clearing House.[26]

After 1917 there was a tendency for banks of equal importance to amalgamate,[27] where they were complimentary to each other either by geographical distribution or by the nature of their operations.[28] These amalgamations proceeded until at present there are fifteen English joint-stock banks (which includes the Isle of Man Bank and banks such as Coutts & Co. and William Deacons', which in fact do not operate in complete independence). The most important of these are the " Big Five," Martins' and the William Deacons-cum-Royal Bank of Scotland, which can hardly be placed in either England or Scotland. Eleven of the fifteen banks have seats in the London Clearing House.

Of the eight Scottish banks, four are under the control of the British Banks, and in addition there are three Northern Ireland and three private banks.

While there is no legal obstacle to further amalgamations, there is a tacit agreement that Treasury permission must be granted before any more take place. This, it is understood, was obtained for the amalgamation

of the Royal Bank of Scotland and Glyn Mills in July 1939.

The capital of the banks is, in part, immobilised in their fixed assets, particularly buildings, but the most important function of their capital is to shield deposits. If a bank's assets depreciated, the loss would fall on the bank's capital and reserves before descending on the deposits.

There is no uniformity in capital structure of the commercial banks, though since the City of Glasgow failure in 1878, the banks were forced to adopt limited liability to raise their capital. This was countered, however, by arranging that the new shares should carry a heavy call. There have, however, been exceptions to this by the issue of fully paid shares. Indeed all Barclay's capital is raised in this way. Nowadays the average ratio of capital and published reserves to deposits for the " Big Five " ranges from 5·2 per cent. for Westminster to 6·3 per cent. for Barclay's.[29]

With this brief introduction dealing with the capital structure of the banks we can now consider the extent of their resources and the number of their branches. This is set out in Table 36.

The underlying determinants of bank activity are, of course, profitability and liquidity. Banking success is achieved in proportion to the successful combination of the maximum of profit from the lay-out of the funds at the banks' disposal (between cash, money at short call, bill money, investments, discounts and advances), together with security in meeting any calls for the repayment of deposits.

The fundamental attitude of the banks towards industry has been that they are willing lenders on short-term account to customers with acceptable collateral. Unlike continental banks they have traditionally refrained from industrial commitments. The remarks

TABLE 36

BRANCHES AND RESOURCES OF JOINT-STOCK BANKS IN THE UNITED KINGDOM.

(Compiled from *Economist Banking Supplement*, 21st May 1938, pp. 24–25.)

1937.

BANKS.	Branches and Sub-Branches.	Capital Paid-up and Reserves.	Deposit and Current Account.	Total Liabilities and Assets.
	Number	£'000	£'000	£'000
English . .	10,097	142,056	2,348,199	2,614,251
Scottish . .	1,889	32,759	330,455	406,891
Northern Ireland .	259	4,900	49,094	58,303
United Kingdom .	12,245	179,715	2,727,748	3,079,445

of Sir Harry Goschen in 1929 epitomises this : " Our basic industries are clamouring for further supplies of capital to instal new machinery, to bring processes up to date and to effect such improvement in reorganisation as will enable them to compete successfully in the markets of the world. . . . No one, I take it, would suggest that the banks should permanently find the money required for capital expenditure and lock up their resources in machinery, bricks and mortar."

Mr. Beaumont Pease made a more categoric statement in the same year. The role of the banks is to provide temporary finance. He rejected the suggestion that even if bankers wish to assist in any reform of industry, that they had the necessary detailed knowledge. But this appears somewhat disingenuous. The banks can, and have, assisted in other ways as, for

example, when they have taken up shares in the Bankers' Industrial Development Company. Nor does it exclude them from providing themselves with departments staffed by persons competent to deal with the problem of the financial relations of the banks to those industries in need of their assistance.

This does not mean that there is no point in Mr. Beaumont Pease's statement. There is. It is connected intimately with the banks' policy of laying-out their funds. Taking the averages of the three Februaries 1933, 1934 and 1935, we find that this was done as follows :

	Per cent.
Total Cash	10·8
Call Money	6·1
Discounts	15·4
Investments	28·6
Advances	39·1
	100·0

The proportion of total cash held (*i.e.* in tills and at the Bank of England) does not alter significantly. This is the banks' first line of defence. Discounts, however, have been showing a downward trend since 1929 and there has been a marked change from advances to investments up to 1937, since when the reverse has occurred. Apparently, however, the banks never let the total of investments and advances exceed a ratio of 70 to 75 per cent. of deposits, as is shown in the table opposite.

It is, of course, these last two items which are a matter of concern to business men. First, because the proportion going to advances will be limited if the banks favour investment, and because those advances may be made for strictly short periods or the banks might use discretion for particular industries in granting extended credits. Lastly, the investments made by the banks may be more use to industry if made through some

company such as the Bankers' Industrial Development Company, than if purchases of stocks are made in the ordinary way. However, one thing appears clear, that the ratio of advances to deposits was seriously curtailed during the depression and increased again with the improvement in trade. Thus, at the very period when the industry was clamouring for greater latitude in lending, the banks, for very good reasons no doubt, were curtailing their advances. The enormous

TABLE 37

RATIO OF INVESTMENTS AND ADVANCES TO DEPOSITS IN MARCH OF EACH YEAR.

(Compiled from the information in the *Economist*.)

	1929.	1933.	1937.	1938.
	per cent.	per cent.	per cent.	per cent.
Investments . .	14·6	26·5	29·4	27·8
Advances . .	54·2	39·8	41·8	44·4
Total .	68·8	66·3	71·2	72·2

resources of the banks were not being of such assistance to industry as they might have been, and there appears to be some hiatus in our financial apparatus. The banks must insist on security and yet there are times when, if financial assistance were forthcoming on better terms, industry would be able to face the difficulties of depression more easily.

Further, the banks have found themselves committed to long-term loans to industry because industry was in no position to repay advances. And in such cases the banks have sometimes actually committed themselves to further loans for indefinite periods. In

1932, Lloyds made such an advance of £3,000,000 to Stewarts & Lloyds, and they were not the only ones to make similar advances.

In brief, although the banks have been designed and have functioned as dealers in short-term commercial credits, they have recently both deliberately assisted business with long-term loans and have found themselves involved in long-term loans from which they could not extricate themselves without severe loss to themselves and injury to the community. Indeed, a writer in the *Economist* in 1930 went so far as to state that the banks had through lack of " constructive vision " kept alive businesses which would have been " better out." But there is a corollary to that—which businesses would still be " in " if the banks had had that " constructive vision," which is largely a synonym for a staff of competent people able to advise and to carry out a wise credit policy. And the writer who has just been quoted remarks on the banks' lack of any highly organised industrial departments. This is the more surprising as, whether the loan is short- or long-term, the banks' money may be tied to an unsound concern.

All bank advances are nominally short-term. The reason for this is to be sought in the historical development of these banks and of British industry, and in the fact that the bulk of the deposits are short-term. Consequently, the banks have never considered it a safe policy to tie up short-term deposits for long periods. And indeed the danger of this was shown in the operations of the acceptance houses before the crisis of 1931.[30]

Critics of the British banking system often compare them adversely with the continental banks. In one important respect, at least—the lack of any industrial departments—the criticism is justified. But for the rest it is to be remembered that industry in this country was in the past largely self-financed. In Germany, for

example, industry has always relied upon the banks for financial assistance, and they, moreover, possessed more freedom with the deposits of customers than the British banks. Nevertheless, this is no sufficient reason for discounting, as the banks appear to do, the development of a new factor—industry must obtain more outside financial assistance than in the past, and has particular needs of medium-term loans. And it is not impossible for the banks to associate their traditional methods with some form of long-range interest in industrial organisation and the issue business.

We have now to examine the classification of bank advances between the various industries, trades and professions. The total advances have already been noticed in a previous table. What is important in Table 38 is to notice the relative importance of the advances made to the various groups of industries in any of the given periods—for example, 1929–30 or 1938. We cannot, with accuracy, compare the advances made to the various groups in the different years, because of the difference in the number of banks included and because the statistics do not all relate to the same period of the year. Nevertheless, providing too great an accuracy is not sought, it is illuminating to notice, for example, the decline in advances made to " Textiles " with the increase to " Amusements."

It is significant of the general situation that the Retail and Miscellaneous Groups (9*a* and *b*) are receiving about as much in advances as Textiles, Heavy Industry, Agriculture and Fisheries together. All the six groups (1 to 6 inclusive) show a severe falling-off in advances, and this includes Food, Drink and Tobacco. The Building Trade, Amusements and " Other Advances " show the most marked increase and, together with Local Government, etc., account for approximately half the advances.

Turning to the average size of the advances and to

TABLE 38

CLASSIFICATION OF ADVANCES MADE BY LONDON CLEARING BANKS TO CERTAIN INDUSTRIES, EXCLUDING MONEY AT CALL AND SHORT NOTICE.

(MacMillan Committee Return for 1930. Return for 1936 collected by the Committee of the London Clearing Bankers.)

(Compiled from *Bank of England Statistical Summaries*, January 1937, November 1937 and November 1938.)

INDUSTRY.	1929–30.* Ten Banks.	1936.† Eleven Banks.	1937.§ Eleven Banks.	1938.‖ Eleven Banks.
	£	£	£	£
1. Textiles	81,632,371	39,929,997	43,825,901	38,120,830
2. Heavy Industries (Iron, Steel, Engineering and Shipbuilding	62,962,675	40,681,469	49,901,291	45,855,664
3. Agriculture and Fisheries	68,630,471	57,657,404	60,091,351	62,451,591
4. Mining and Quarrying (including Coal)	30,003,440	18,091,024	15,112,352	15,216,370
5. Food, Drink and Tobacco	63,177,889	29,403,403	32,532,889	36,122,258
6. Leather, Rubber and Chemicals	21,969,950	12,593,550	15,341,083	13,978,161
7. Shipping and Transport (including Railways)	25,176,565	23,167,305	20,056,424	26,492,671
8. Building Trades	47,824,549	61,547,687	68,224,109	68,148,722
9*a*. Miscellaneous Trades	146,496,288	67,367,142	74,660,058	69,060,382
9*b*. Retail Trades		60,060,190	63,964,138	66,399,694
10. Local Government Authorities and Public Utility Companies (excluding Railways)	52,384,672	50,397,983	54,193,189	59,208,674
11. Amusements, Clubs, Churches and Charities, etc.	26,502,720	40,459,790	44,487,210	46,572,288
12. Financial (including Banks and Building Societies)	142,547,506	109,554,025	118,216,653	108,999,683
13. Other Advances	218,402,248	258,542,153	300,408,502	297,660,943
Total	987,711,344	869,453,122‡	961,015,150	954,287,931

* Various dates from 22nd October 1929 to 19th March 1930, *i.e.* 6 months.

† Nearest available date to 31st October 1936.

‡ According to the published statement the total advances of the District Banks in October 1936 were about £28,000,000.

§ Various dates between 4th August and 26th October 1937, *i.e.* 3 months.

‖ Various dates between 3rd August and 31st October 1938, *i.e.* 3 months.

the important borrowers as exemplified by Barclays and Lloyds, we find that the former made advances to 200,774 "customers" with an average of £774. Of these customers, 196,365 did not exceed £5000. 35·7 per cent. of the advances were made to private or professional people; 12·7 per cent. to retailers; 9·4 per cent. to farmers and 3·3 per cent. to builders. The average advance made by Lloyds in one year was £1,151; and the average to professional and personal, £561; agriculture, £840; but, as would be expected, industrial credits were much greater. The average advance to the coal industry was £10,900; iron and steel, £12,000; and cotton, £15,000.

Thus while, as the MacMillan Report pointed out, small and medium firms have difficulty in raising new capital for long-term development, a striking fact of the advances is that they are relatively small. It would imply, therefore, that established firms—no matter how small or personal the concern—can secure advances providing their security is ample. This raises the important point, which receives some consideration later, that advances are consequently more easily available when trade is good than when trade is depressed and credit is the more necessary.[31]

It is possible that some modification of this, and the rigid doctrine that sound banking must be confined to short-term lending, could and will be made; but this will probably only transpire if some outside authority, such as the Government, provides guarantees to the banks. In the meantime there has been a strong tendency for industrial leaders to develop financial interests in business, which has really changed some of them into financiers, and the banks cannot be expected to provide their short-term deposits for this type of manipulation.[32]

NOTES

[1] See the admirable summary in the *Report on Finance and Industry*, cmd. 3897, (1931), p. 14 et seq.; Bagehot, *Lombard Street*, chap. ii.; Lavington, *English Capital Market*, chap. i.; R. J. Truptil, *British Banks and the Money Market*, Preface, p. 15.

A recent book, dealing in detail with the capital market is *Der englische Kapitalmarkt*, by Dr. Edwin Frey. Special attention is given to the methods of financing industry, particularly to the methods of financing small as well as large businesses. Dr. Frey stresses the importance of private and semi-private sources, from which industry still draws funds, *e.g.* via solicitors and private individuals.

[2] Bagehot, *ibid.*, p. 167.

[3] See H. Withers, *Money Market*, chap. ix.

[4] Municipalities of course did, and still do, assume the responsibility of their own issues.

"As a rule," Lavington quotes an authority as saying, "our English industries are too small in scale to attract Issue Houses; the securities would not be marketable. Hence this work is done by the company promoter, while further issues of existing companies are made by the companies themselves."

[5] "In addition, joint-stock companies, railways and municipalities may sell *additional* shares and debentures by various methods, excluding the use of these financial houses.

[6] Lavington, *ibid.*, chap. xxiv., p. 220 et seq.

[7] Building societies claim a history preceding that of the Bank of England. *Economic Journal*, March 1933, part i., "Building Societies: Some Aspects," by Sir Harold Bellman.

[8] *Economist*, 11th July 1936, p. 70. "Within the last five years a traditionally free and international market has been metamorphosed into something like an executive instrument of Government policy, largely without the passing of legislation or the formal recognition of any external change."

[9] See Withers, H., *Meaning of Money*, 1920, chaps. xi.–xv. Lavington, *English Capital Market*, 1921, and *Report on Finance and Industry*, 1931.

[10] By December 1939 this has increased to the rate of £2,500,000 per annum.

[11] The list of unofficial committees which are instruments between the City and the Treasury include:

(1) Clearing Banks' Committee.

(2) Stock Exchange Committee.

(3) Foreign Exchange Bankers' Committee.

(4) Foreign Investment (Advisory) Committee.
(5) Acceptance House Committee.
(6) Discount Market Committee.
(7) Association of Investment Trust Committee.

[12] *Economist*, 11th July 1936, p. 20. "If 'control' is to be maintained as a quasi-permanent part of the market's machinery, the first essential would seem to be that Treasury should seek legal authority for a very serious restraint of trade."

[13] See footnote 11 above.

[14] *Banker*, July 1935. "During early June [1935] the Bank of England twice intervened in the affairs of the City. . . . It is true that the Bank possesses no statutory powers over other city institutions. . . . Yet the Bank is known to be the agent of the Government in financial matters, and its actions are known to be entirely disinterested. The City, therefore, complies with its wishes with the utmost loyalty."

More recent examples can easily be found.

[15] For a fuller account see Sayers' *Modern Banking*, chap. v., also Truptil, *ibid.*, p. 31.

[16] In addition, the Bank acts as custodian of part of the cash reserves of the commercial banks; a most important function from the viewpoint of credit control.

[17] "Minutes of Evidence" of *Report on Finance and Industry*, p. 9. Mr. Norman, questioned, replied to the effect that there is a tendency to break down the tradition of drawing directors from a narrow class of merchant banks.

[18] *Ibid.*, 11th January 1930, p. 65; and 10th May 1930, p. 1042. The full programme of the Corporation was stated to be the control of 10,000,000 spindles and about 20,000 looms, which covers about one-fifth of the spinning section and only touches the fringe of the weaving.

[19] In this connection the following question and reply is of considerable interest. *Report on Finance and Industry*, "Minutes of Evidence," p. 220. Q. 3485 and 3489.

Mr. McKenna: "You feel the market. My observation is that it is equally important to feel industry."

Mr. Norman: ". . . and we are endeavouring to do so," and quoted the Bankers Industrial Development Company's issue as one which an ordinary issuing house might not have made.

[20] In some quarters the Banker's interest in industrial development has caused uneasiness. See *Economist*, 1st February 1929, pp. 228–9, for a statement after the announcement of the Banks' interest in the United Dominions' Trust.

[21] The most important characteristic of the acceptance houses is the international aspect of their activities. The acceptance houses' credit

is so high that their signature on a bill will ensure a ready acceptance. But the decline in international trade has hit this business of "acceptance credit" hard. This, of course, is important in connection with our foreign trade.

[22] Middlemen who confine themselves to acting as intermediaries between buyer and seller. See O. K. Hobson, *op. cit.*, p. 38.

[23] *Economist*, 25th March 1939, p. 619. The six firms involved are understood to have a total capital of about £1,250,000.

[24] Sayers, *ibid.*, pp. 58–9. In fact, Government Bills generally; but Treasury Bills predominate.

[25] The banks also perform a considerable number of services, the most important being:

(1) Sale and purchase of securities on behalf of customers.

(2) Purchase and sale of foreign currencies.

(3) Effect numerous transactions connected with the import and export goods.

(4) Act as banker for new capital issues. Loans are also made for dealing in old securities on the Stock Exchange.

[26] Very recently (July 1939), the Royal Bank of Scotland has amalgamated with Glyn Mills.

[27] Economist, 2nd August 1930, pp. 223–4. Acquisition by Martins' Bank of the Lancashire and Yorkshire.

[28] Truptil, *ibid.*, pp. 64–5, instances London County and Westminster absorbed by Parr's Bank in 1918. A Committee of the Treasury (1918) reported that since 1891 the number of private banks have been reduced from 34 to 6, and joint-stock banks from 106 to 34.

[29] *Ibid.*, pp. 354–5, Capital Reserves and Deposits of the eight most important English Banks are as follows:

Capital.			Reserves.	Paid-up Capital plus Reserves.	Deposits.	Ratio of Capital Reserves to Deposits.
Callable.	Paid-up.	Total.				
£'000 170·3	£'000 73·8	£'000 244·1	£'000 54·4	£'000 128·2	£'000 2,144·7	Per Cent. 6·0

[30] We do not wish to imply that the acceptance houses were guilty of lending unduly on long-term.

[31] An old story! See *Economic History*, vol. iii., No. 141.

Fussell & Compton *Agricultural Adjustments after the Napoleonic Wars*, p. 189,

[32] See chap. viii.

CHAPTER VIII

THE FINANCE OF INDUSTRY—*Continued*

(*b*) Other Methods of Finance

IN the last chapter we discussed mainly the relations between the banks and industry, and were therefore mainly concerned with short-term loans. We are now to discuss the finance of industry which merges from the provision of trade credits (relatively short-term in character); hire-purchase finance which, from the business viewpoint, is mainly in the nature of medium-term loans, to the self-financing of the large industrial organisations and the general provision of long-term capital. The new purveyors of savings and the special character of the problem of agriculture will also be discussed.

First we consider trade credit and hire-purchase (and instalment purchase) because they are, logically, an extension of the short-term finance already discussed.

"In their passage from the soil to the consumer goods pass through the hands of a series of owners, creating as they pass a train of debts, a series of trade credits." The volume of these trade credits is unknown, but even in these days of hire-purchase finance, they must be extensive. At some stage or stages on the way to the consumption of some £5,000,000,000 of goods and services each year, trade credits have assisted the process of carrying the goods over from one owner to another. The variety of the methods used in extending trade credits to customers, and the time allowed, is great, not only between different industries and

trades, but within the same industry or the same trade. Nevertheless, the concept of trade credit is simple and may be considered as a supplement to short-term bank loans though it is used, in the retail trade in particular, for assisting a retailer in the early days of his business life,[1] and then tends to become a medium-term loan in the form of goods.

The character of trade credits as a supply of capital is to be seen in the method of purchase. Goods are supplied to be paid for at a later date. Usually it is the merchant or dealer who offers the credit terms, because they are in a relatively favourable position to form an opinion on the character and circumstances of the purchaser in a way which would not be acceptable to the banks without security. The result of this practice is that at the various stages of production and distribution goods are sold before the owners pay the debts for the raw materials of their businesses. Industry and trade have thus developed financial arrangements for their own use.

While the provision of trade credit has over a long number of years provided industrialists with equipment and raw material, and distributors with the finished goods on terms which have simplified the financial problems of many of them, this has, in recent years in particular, proved itself insufficient. With the quick changes which are made in processing and the need, in particular, of new industrial plant, many firms have felt the acute need of additional liquid capital. Trade credit is not sufficient to meet this need. What is needed is some form of medium-term finance by which the loans could be paid off in a period of (say) one to five years. The banks have not regarded the financing of industrial equipment—machinery, plant and general accessories—as one of their functions, and the problem has only been partly solved by the development of new financial undertakings and by some of the actual

suppliers arranging such accommodation for their customers.

There are two types of finance house providing assistance : those who specialise in particular industries, and those who provide the finances for industry generally.

The Electric and General Investment Trust (1890) was formed specifically for the purpose of the promotion and development of undertakings connected with all branches of the electrical industry. But the history of industrial hire-purchase of these specialised undertakings goes back to the 1850's. Since 1857, at any rate, there have been a number of Waggon Finance Companies which, as they have developed, have not confined themselves to the business of waggon financing. There are a number of such companies :[2] Lancashire Waggon Company (1857), Scottish Waggon Company Ltd. (1860), The British Waggon Company Ltd. (1869), the Wagon Finance Corporation Ltd. (1906).

In post-war years the problem of financial machinery to assist manufacturers with industrial equipment has been more urgent than ever before. And the United Dominions Trust Ltd. has made considerable efforts to meet this need. The Trust has been responsible for the formation of " Credit for Industry," which has the specific function of financing by the bill method " industrial re-equipment and related purposes." Thus the internal trade bill is returning to use as the aid to hire-purchase in industry and, as is shown later, as an aid to hire-purchase for consumption. But so far as it is used for assisting re-equipment, it still merely touches the fringe of the problem. However, this is supplemented by credits made by suppliers themselves which, in some instances, take the form of deferred payments. Other suppliers prefer to hire the machinery. For example, the British United Shoe Machinery Company controls about 90 per cent. of the plant in the boot-and-shoe industry.

This problem of financing the mechanical equipment of machinery is the more difficult because of the predominance of small units of production in many industries.[3] Nevertheless, the solution—as the Macmillan Report stated—lies in regarding the plant not from a cost viewpoint, but from the viewpoint of earning capacity. But with the present method of making loans on the basis of collateral security, this fact tends to be ignored.

Strangely enough, while the prejudice in the City has been strongest against hire-purchase for consumption, greater strides have been made in this direction than in similar assistance for production. While the extent of this development in Great Britain is unknown the American experience is some guide.[4] There, hire-purchase ranks [5] third in importance in the variety of discounts held by the Federal Reserve Member Banks.

In this country the banks are concerned with the financing of hire-purchase companies to a much less, but nevertheless increasing, extent. They, however, confine themselves to relatively short-term advances. " So far," remarks a writer in the *Economist*, " they have accepted only the better class of bills and have stipulated that there should be only three months or less to run."

The most important finance house dealing in these bills is the United Dominions Trust Ltd., which is a registered banking firm, and started in 1919 with a capital of £5000, and now has share capital and reserves exceeding £2,000,000.[6] A more recently established firm is the Assurance Finance Trust (1933) which, to exemplify the business done and to be done, increased its turnover fourfold in 1935–36.

While the total extent of hire-purchase finance is unknown, there are independent estimates in respect of particular commodities which, it is of interest to notice, are for commodities produced by the new industries. Probably 75–80 per cent. of the wireless sets, 70 per

cent. of the motor-cars and an unknown but large proportion of household goods are bought on hire-purchase terms.

There are two broad methods by which the consumer is financed : either by making his own terms with his dealer, or the dealer (who makes his own arrangements) passing on the business to a hire-purchase finance company. The rates are supposed to vary between 5 and 8 per cent. And as the companies borrow bank advances, acceptance credits or discounts at between 2½ and 4½ per cent., there is a considerable margin of profit. Probably the security of such dealings can best be gauged by two statements : bad debts are estimated to be 1 per cent. of the total transactions, and one large company has never had bad debts exceed 0·1 per cent. in any one year.

It is apparent that this type of business is giving an enormous impetus to the growth of the internal trade bill, and has the additional attraction over present external dealings, of security. Consequently, as the banking community slough their prejudices or take " a less austere view of the business to be done," it is to be expected that they will assist its development both for consumption and production.

The remarkable development of hire-purchase facilities to consumers is, of course, of indirect assistance to industry and distribution by removing the need for waiting for payment. But the direct assistance of the hire-purchase method of financing industry itself, and the provision of medium-term loans for general purposes (as against the use of hire-purchase for obtaining a particular piece of plant) is still, apparently, deficient. The development of the Dominions Trust and the Assurance Finance Trust does not solve the problem, but rather shows the glaring need of industry.

One other factor of considerable importance needs mentioning, however, before long-term capital issues

are considered. It has been mentioned that there has been a great need for the financial organisations to supply the requirements of small and moderate-sized undertakings. This is now being done to a limited extent by certain Investment Trusts such as the Charterhouse, the London and Yorkshire and the British Shareholders' Trust. In addition, the insurance companies are also assisting in filling this financial gap and the subject will recur in dealing with them later.

We can now turn to consider in more detail the supply of long-term capital. The outstanding and, indeed, the startling fact about the provision of savings [7] is, as Clark and Feavearyear have shown, that " three channels of saving—namely, the obligatory savings funds of local authorities, trading profits held back by company officials and saving for security by the working and middle classes—provide enough to meet nearly the whole of investment requirements in recent years." [8] He estimates that, in 1934,[9] the amount of undistributed profits was £156,000,000, working- and middle-class savings, £172,400,000 and State and local authority saving, *i.e.* in public works, £101,000,000. The importance of these facts is not in absolute accuracy as in their relative importance, and in the change in the channels of investment from pre-war days when the savings of the rich, invested through the new issue market, were more important.

The savings which are made through local authorities and governments are not the direct concern of this book. But the " ploughing back " of profits into businesses is important, not only because of the amount of the capital involved, but because of its effects on the structure of industry. This, of course, has particular reference to the finance of the very large units which now exist. But the facts are not simple. The development of agreements such as cartels and syndicates

or even to some extent the close-knitted communities of interest does not necessitate a change in the financial structure of businesses; but the movement to a concentration of control does. Moreover, the power that control over the financial side of a business provides, also acts as an impetus to bring about such concentration. Thus there are two sides at least to the movement to concentrated control : the development of business, which involves the use of more finance, and the financial control—or development of it—which alters the structure of the business organisation.

Until about 1885 firms were largely self-financed out of profits. Limited liability only became a common business procedure about that time.[10] From then on, large-scale business ceased to rely solely on its own profits for development and drew its main resources from share issues.

Even so, during the next epoch, the single-plant industrial undertaking predominated, and it was not until the modern business unit emerged with the aim of monopolising an industry, and the tendency in some industries to do so by horizontal and vertical combination that the modern epoch emerged.

The methods adopted were varied. Those industries which have a considerable volume of funds have an immense advantage in acquiring businesses controlled by less fortunate competitors. But the use of such profits and their capitalisation as a basis for the issue of share capital have both proved in many cases insufficient for the massive amalgamations which have developed, and resort has been made sometimes to the less commendable methods.

Yet, when this criticism of financial manipulation by industrialists is stated, probably one of the most significant facts in the relationship between " big business " and finance is that the development of the former has provided the initial money for the huge

concentrations which have followed, and also for the development of control over industry which, for some, is essentially financial. As Levy points out : "The very development of combines may create an accumulation of capital seeking investment beyond its original domain. The combine itself then has risen to a financial power. This may lead to a combination of very heterogeneous production within a single commercial unit." The links of combination are then mainly financial and may carry that combination beyond any definition of an industry. To the initial object of production of particular industrial products, there may be, and is, added control over other industries, or sections of industries. Sometimes the function of the controlling body has added—or been changed into—the function of financing instead of manufacturing.[11]

Having considered some of the problems involved in the utilisation by modern industry of undistributed profits, we can now consider the related problems of the interlocking finances of industrial concerns.

While few English combines are completely unified undertakings, many are bound by holding companies, while others are bound by exchange of shares, while others are formed by an involved method of exchange of shares, or in part holding companies and in part consolidations. In addition, there is, of course, the further method of interlocking directorates.

The system of forming different types of companies directed towards the same end of financially interconnecting undertakings is the cheapest way of building up a concern or a trust, because less capital is needed to purchase a succession of controlling interests in various companies than to acquire their property and goodwill by direct purchase of each undertaking, and very considerably cheaper than by undercutting a competitor.

The holding company has become so common

that there is scarcely a large British concern to-day which is not a holding company. It is simply a legal and financial device to effect an amalgamation or rationalisation without the constituent companies losing their identity or characteristics which means their names, goodwill and established reputation. Thus the new organisation can then exploit its new advantages without losing the advantages of any of the intangible assets of the old companies.

We have seen that the arrangement between William Deacon's and the Royal Bank of Scotland included an arrangement for interlocking directorates. This method of associating companies is also widespread, but it is not necessary to enter into any considerable discussion. Though it may be pointed out that the extent of these interlocking directorates is probably even more significant from the standpoint of sociology and politics than from that of the structure of British industry, yet it is very important from the viewpoint of the concentration of control and capital, especially of the capital of the 15,000,000 small investments (not by any means investors) which are dealt with to some extent in the sections on building societies and insurance companies. The vast sums which are collected through the banks, the insurance companies, the investment and fixed trusts are, in fact, controlled by relatively few people who are directors of these institutions, some of them directors of many of them. While, in addition, some of them are directors of industrial concerns.

This theme need not be pursued ; its importance is obvious.

Before considering the other financial institutions in any detail, we must give some account of the new capital issues made in recent years. The decline in their importance confirms the fact that most of the £400,000,000 per annum of savings is finding its way into investment

through different channels than the New Issue Market.[12]

The table opposite gives details of the new capital issues.

But for the increased defence borrowing by the Government the aggregate new capital subscription in 1938 would have been little more than one-fifth higher than in the worst year of the depression. Trade issues have been reduced to just above one-third of the low level of 1931, and actually to less than one-third of 1928—the best pre-depression year.

While in 1938 textiles received £100,000, cinemas and films received £1,100,000. In the same year brewing and distilling received £5,800,000, shops and stores £9,700,000, and coal, iron and steel £6,700,000. The total industrial issues amounted to £54,700,000, and the public utilities accounted for £22,000,000.

Three points emerge :[13] the financial importance of the public utilities, the complete absence (except from the Bank of England) of direction in the functional allocation of savings invested through the New Issue Market (during peace time), and lastly (the fact already noted) the importance of other channels of investment.

An old and just criticism mentioned in the Mac-Millan Report, and reiterated since, has been that "while the banking system and the bill-brokers are a fairly efficient market for the temporary uses of capital . . . and while there is the Stock Exchange . . . a fairly efficient organisation for the buying and selling of shares in the capital of companies already in existence . . . there is no comparable mechanism for facilitating investment in new enterprise. . . . This highly important business is left mainly, in Great Britain, to the Company Promoter." This is qualified by the statement that the Banks and Investment Trusts "do something," but an important new fact is that company promoters are not the avenue for handling

TABLE 39

NEW ISSUES IN £ MILLIONS

(Compiled from *The Bank of England Statistical Summaries.*)

	All Issues.			
	1935.	1936.	1937.	1938.
United Kingdom :				
Local Authorities	22·6	41·5	33·2	26·0
Industrial	141·1	165·6	113·8	76·7
	163·7	207·1	147·0	102·7
Other British Countries :				
Government	2·9	0·7	3·0	7·6
Industrial	14·2	26·0	21·4	13·7
	17·1	28·4*	26·2*	23·5*
Europe :				
Government	1·5	1·4	4·9	—
Industrial	1·2	0·7	—	0·5
	2·7	2·1	4·9	0·5
Latin America †	0·3	0·7	0·2	3·0
Other Countries ‡	0·4	0·4	1·6	1·1
Total— §				
Government	4·4	2·1	8·8	7·6
Local Authorities	22·6	43·2	35·0	28·2
Industrial	158·0	194·1	136·4	95·0
Grand Total	185·0	239·4	180·2	130·8
Abroad	21·3	32·3	33·2	28·1
Abroad, as percentage of Total	11·5	13·5	18·4	21·5
Investment Trust ‖	14·2	5·2	7·0	1·1

	Industrial Issues for U.K.			
	1935.	1936.	1937.	1938.
Brewery and Distilling	3·1	5·3	5·9	5·1
Cinemas and Films	2·1	3·8	3·2	1·1
Coal, Iron and Steel	8·0	18·2	11·3	6·7
Engineering	13·0	25·6	14·4	8·6
Land, Buildings and Materials	16·4	13·6	8·9	6·1
Printing and Paper	3·6	4·8	2·2	2·0
Shops and Stores	9·5	6·4	6·0	9·7
Textiles	2·9	4·9	3·0	0·1
Miscellaneous	28·7	26·8	31·4	15·3
Total	87·3	109·4	86·3	54·7
Central Electrical Board	—	3·5	—	—
Other Electricity, Light and Power	11·0	8·0	12·0	15·3
Gas ¶	7·8	7·1	3·7	4·8
Water	1·4	1·8	1·2	1·4
Canals, Docks and Harbours	0·9	0·3	0·5	—
Railways	31·7**	35·0††	8·9‡‡	—
Tramways and Omnibuses	1·0	0·5	1·2	0·5
Total Public Utilities	53·8	56·2	27·5	22·0
Grand Total	141·1	165·6	113·8	76·7
Public Utilities, as percentage of Total	38·1	33·9	24·2	28·7

* Includes Local Authorities, 1936=1·7; 1937=1·8; 1938=2·2.
† All Industrial.
‡ Government and Industrial.
§ Includes abroad unallocated.
‖ Except unit trusts.

¶ Includes companies supplying electricity or water as well as gas.
** Compare with London Electric Transport Finance Corporation, 31·0.
†† Railway Finance Corporation, 26·2, and Railway Clearing House, 8·8.
‡‡ London Electric Transport Finance Corporation.

investments to a comparable extent to what they were. Moreover, the company promoter is not concerned at all with any other aspect of investment than that it should be successful from the relatively simple point of view : that it should be taken up.

We turn now to the " other " channels of investment. Of the £172,400,000 of working-class savings in 1934, £71,900,000 was estimated to be in respect of repayment of principal to building societies, £54,600,000 life assurance payments, and £45,900,000 was made through " other working-class savings (savings banks, provident societies, savings certificates)." [14]

These figures give some indication of the *annual* amounts handled by the institutions we are about to describe.

First, the insurance companies. There are some 160 registered collecting insurance societies, and 130 companies covering all types of insurance. The total paid-up capital is about £45,000,000, and, in addition, shareholders' funds amount to about another £45,000,000. Their total funds, however, amount to over £1,000,000,000, and thus the share capital is relatively unimportant. The Prudential, for example, is known to have a paid-up capital of about £1,500,000, but assets amounting to about £300,000,000. It is obvious that the importance of insurance companies is derived from policy-holders' money, as the importance of the banks is derived from deposits.

According to Clark, their assets are invested in the proportion of 60 per cent. in Stock Exchange securities and about 40 per cent. in mortgages. And with £50 to £60,000,000 per annum to invest, together with the fact they turn over their investments frequently, they are valuable customers on the Stock Exchange and gain a corresponding influence in City affairs. Moreover, as some of the most important of them have direct holdings and control in businesses, and also

hold mortgages, their influence in commercial and industrial concerns is threefold.

The investment trusts,[15] of which there are some 165 quoted on the Stock Exchange List, have approximately £360,000,000 of invested funds, the major proportion of which is invested in Stock Exchange securities and a very much smaller proportion invested in Government securities. Nevertheless, their influence in the City is considered to be greater than that of the insurance companies, because they follow a very active investment policy. Moreover, the Association of Investments Trusts represents some £300,000,000 of invested capital.[16] Hence, the facts that this Association enables them to act in common, and that most of them belong to groups each member of which is controlled by practically the same directorate, has contributed to their very considerable power in the City, although no individual trust approaches in size even a medium-sized insurance company.

Both the insurance companies and the investment trusts do underwriting. Further, some insurance companies (particularly the Prudential), and to a less extent the investment trusts, have developed a form of private financing which assists to fill the gap which exists between short-term financing of the joint-stock banks and the long-term financing by way of the public issue.

The advances which they make on property and plant finance companies in the early stages of their development, when such assistance would be difficult to obtain through other finance houses. Thus they are developing an interest in the loan of medium-term capital and, to some extent, acting as channels for savings which it would be difficult, so far as the policy-holders of insurance companies are concerned, to utilise in industry if only the ordinary capital market were available. In addition, they have replaced, to

some extent, the New Issue Market as a medium for investment.

This is also true of the building societies, which have been described as " investment trusts specialising in the provision of finance for house and land purchase." They canalise, as we have seen, a considerable proportion of the annual savings and have, in the main, re-lent these savings to house-purchasers, largely of the owner-occupier type.

The number of societies is less than one thousand, with over 2,000,000 members (share-members). Their assets probably exceed £700,000,000, while their mortgage assets approach that sum. The mortgage advances for ninety-nine leading societies exceed £110,000,000 per annum, and probably exceed £140,000,000 per annum for all societies. Like other organisations there has been a movement to consolidation while, at the same time, expansion has taken place, though since 1936 the annual mortgage advances have declined. Indeed, the major problem facing the building societies is that of " return money," because of which the societies have to a large extent become self-financing.[17] They are facing the future problem of re-investing repayments particularly because of the relative decline in future mortgage advances. They may, therefore, find an outlet in the future in the long- or medium-term finance of industry and trade. At any rate, in this respect their development should be full of interest.

The inequalities in importance between the various building societies has increased despite the movement to consolidation—or possibly because of it. Figures for 1934 show that at the end of that year one society held 18·5 per cent. of the total assets of the movement, two societies between them 36·2 per cent., eleven societies 55·4 per cent. and forty-seven societies 77·2 per cent. In short, less than 5 per cent. of the societies held more than 75 per cent. of the total assets.

But since it will be appreciated that while the societies do not now exercise the same influence in the City as the insurance companies and investment trusts, their influence on industry *via* the building industry is extensive, and the problem of investment may yet force the larger societies to take a more active part in other financial operations.

We turn now to agriculture which has its distinct problems of finance. Agriculture, despite exceptions and cartelisation, is in this country still the industry of small farmers. There are in Great Britain some 14,000 holdings over 300 acres each, which amounts to one-sixth the cultivated land, but there are nearly 450,000 holdings above 1 acre—and less than 300 acres.

There is once again the twofold problem of short- and long-term credit but, unlike industry, there is a dichotomy of need. Long-term credit generally concerns the landlord and short-term credit the farmer. Probably, at this stage of its history, agriculture is the most under-capitalised industry in the country.

Short-term credit plays a large part in the industry. Most of it is obtained from merchants and dealers on security of future sales of agricultural produce, by hire-purchase arrangements for implements and machinery and by bank overdrafts.

Agricultural credits were first developed as a result of the Improvement of Lands Act, but little was done until the formation of the Agricultural Mortgage Corporation Ltd., formed under the Agricultural Credits Act, 1928 ; but the problem was not solved.

The principal purpose of the Agricultural Mortgage Corporation was to make loans on mortgages of agricultural land and under the Improvement of Lands Act. The terms of the loans were more favourable than those available elsewhere and it did fill a gap, but it did not solve the problem of long-term loans to agriculture.

The second part of the Agricultural Credits Act [18] dealt with short-term credits, but very little use was made of the offer. The difficulty of the farmer lies in the security he can offer, and in this he suffers from the perishable nature of his products and the uncertainty attached to the coming to maturity. This means that not only is most of his real wealth of an insufficiently durable nature to be acceptable by a bank as security, but also that any capital invested in agriculture may be locked up for an indefinite period of time. A crop failure may necessitate the postponement of repayment for twelve months. An outbreak of foot-and-mouth disease may mean an even more extended period of non-payment.

While the problem of the provision of short- and long-term credit for agriculture remains unsolved, other methods are being tried with the industry. Recently, arrangements have been made for the hire-purchase of cattle, and though the " terms are more those of a bank transaction," yet they are of a nature the farmer can understand.

But possibly the farmers' best hope of a solution lies in a prosperous agriculture and the provision of the necessary capital from his profits to " plough back " into his farm as he requires and in the manner of the old industrialists. Certain it is that the purveyors of capital which have supplied industry and commerce have left the farmer severely alone. His problems are peculiar and difficult and his position not markedly different, financially, to what it was a hundred years ago, with the exception of one important proviso. Before industrialisation reached its peak in this country, the capital of landowners had not yet found its way into industry and was used to equip the farms. To-day that rarely happens except as a matter of philanthropy, and no industry is run on philanthropy.

Finally, a word about the finance of exports. With

the decline in international trade and the growth of "interference" of governments, the technique has been changed even in this country. There has been no approach to the German position where multilateral trading has practically disappeared, though since the war, a close control is exercised by the State, and there are significant changes.[19]

For one thing, the intense competition has forced exporters to give long credit terms. Secondly, the banks, since the war, have developed their foreign departments and handle a large proportion of the business which formerly went to the finance and specialist houses in London. But even so, the banks do not care to exceed six months' credit, and it was not until the establishment of the Exports Credits Guarantee Department that some of the need for facilities for medium-term loans was met. But this provision is important. One writer states that: "It would be almost impossible to negotiate bills drawn on countries such as Iran unless cover has been obtained from the Exports Guarantee Department." And facilities are apparently given freely by the banks when bills are so guaranteed.

The Exports Credit Department began by insuring, for British exporters, the solvency of their foreign customers, and then undertook to transfer sterling debts from countries with exchange restrictions.[20] The next stage was for the Department to provide medium-term credits, the more necessary because the banks were unwilling to provide facilities equivalent to those offered by continental banks.

The operations of the Department, which is run on strictly commercial lines, have increased from £7,500,000 in 1933–34 to over £35,000,000 in 1936–37, while the acceptance credits of City banks is estimated to have fallen from £250,000,000 in 1931 to £150,000,000 in 1936–37.

But sufficient has been said to show that in all departments of economic life—even agricultural, though to a much less degree—there is a change in the financial structure and assistance to industry and commerce. Though the importance of these changes may easily be exaggerated because, in most cases, the older methods and structure is still available, it would also be misleading to underestimate these new factors.

There are now no water-tight compartments; the business of industry is the business of finance. Probably the keynote of it all is that everywhere there is a realisation of the strong interdependence, the one upon the other, and that this is becoming consciously recognised and consciously provided for.

NOTES

[1] Lavington, *ibid.* (1921), p. 267. "In the Lancashire Cotton industry . . . trade credit is important in enabling men to begin in a small way." This is interesting because it shows that manufacturers as well as retailers are assisted by trade credits, and that the middleman is the important purveyor of this type of credit.

[2] Letter to the *Economist*, 27th February 1937, pp. 469–70. Incidentally there has been combination among these companies.

[3] 76·9 per cent. of the factories in 1936 employed not more than twenty-five persons. *Manchester Guardian Commercial*, 10th February 1939, p. 118.

[4] See *Financial News*, 7–8th February 1939, and Seligman, *Instalment Purchase*.

[5] There is, of course, the well-known distinction between hire-purchase and instalment-purchase, which for our purpose is ignored. With hire-purchase the ownership does *not* pass until all the payments are completed.

[6] Incidentally the Bank of England is the largest shareholder.

[7] This is now history: see *Economic History Review*, vol. vi., No. 1. October 1935. M. M. Postan, *Recent Trends in Capital Accumulation*, pp. 9–10.

[8] Clark points out that there is no information as to individual profits of private companies and individual traders, and he has assumed

that the proportion of their profits saved each year is the same as that of public companies. *Op. cit.*, p. 186.

[9] Clark, *op. cit.*, p. 191. Also Table 87, p. 190. See also speech of Mr. Henry Clay to the Manchester Statistical Society, reported in the *Economist*, 12th March, 1929, pp. 586–9. "We are left with the impression, which I believe is justified, that the chief sources of long-term capital for new enterprises is the savings of individuals and firms which are applied directly through no intermediate agency."

[10] Clapham, *Free Trade and Steel*, particularly pp. 116–40, where he shows that there were relatively few limited liability companies before that time.

[11] This has been shown most clearly in Germany (see Liefmann, *Kartelle, Konzerne und Truste* (1930), p. 387), where I. G. Farben is shown to have carried out financial operations nearly every year.

[12] Of the total issue made in the London Market before 1914 about 18 per cent. only was made for the United Kingdom. While it is not possible to give the proportion subscribed, by English investors, this indicates the relative unimportance of new British industrial issues then.

[13] Though a fourth point should perhaps be mentioned, only a small proportion of the new capital *subscribed* through the new issue market can be regarded as new capital, *i.e.* the new capital in this latter sense forms only a small proportion of the money issued (*e.g.* 9·6 per cent. of the amount subscribed in 1928). (See *Capital and Investment*, p. 133).

[14] *Op. cit.*, Table 86, p. 189. Clark points out that a considerable number of life insurances represent the savings of the well-to-do. In addition considerable savings are made through the Co-operative Societies.

[15] The Fixed Trusts have collected more than £70,000,000 of capital as well.

[16] Clark, *ibid.*, p. 154. In 1933 the Association had nineteen members, with total issued capital of £310,000,000.

[17] *Economist, Building Society Supplement*, 23rd April 1938, p. 8. "On a net basis (*i.e.* after adjustment for interest) the societies are probably able to finance nearly two-thirds of their new advancements from repayments on existing mortgages."

[18] There was a separate Act for Scotland.

[19] Guillebaud, C. W., *Economic Recovery of Germany*, 1933–1938, p. 65 et seq. See "Epilogue."

[20] They undertake risks up to 75 per cent. of the individual order.

CHAPTER IX

LABOUR IN INDUSTRY

PART I.—Employment and Unemployment

THE estimated population of the United Kingdom in 1931 and 1938 was 46,074,000 and 47,485,000 respectively.[1] The comparable figures for Great Britain are 44,831,000 and 46,200,000. The occupied population—that is to say, all those who work or are willing to work for monetary reward and excluding such persons as housewives—is not quite half the total population.

The general position for Great Britain is set out in the table opposite.

Of the 21,100,000 occupied persons (which includes the unemployed), 6,300,000 were females and 14,800,000 were males. The age-group with the highest proportion of occupied females to total females is 16 to 18, with 76 per cent. The comparable male groups are 20 to 25 and 25 to 35, with 98 per cent. occupied. Of all females 27 per cent. are "occupied," and of all males, 69 per cent. From this it would, of course, be wrong to deduce that there is a very large proportion of females who are unoccupied in the sense that they are available for work in industry or commerce, except, of course, under exceptional conditions such as war, when female labour is our main source of labour reserve. On the other hand, as the 69 per cent. of "occupied" males include unemployed, it underestimates the reserve of male labour for industry. Nevertheless, there is less latitude, in this respect, in

TABLE 40

POPULATION BY AGE GROUPS, 1931.

AGE GROUP.	1931.		
	Total Numbers.	Numbers Occupied.	Percentage occupied of Total Age Group.
	Millions	*Millions*	
Under 14 . . .	10·1	0·0	0·0
14 up to 16 . . .	1·4	0·81	57·0
16 up to 65 . . .	30·1	19·41	64·0
65 and over . .	3·3	0·84	25·0
Total .	44·9	21·06	47·0

the important age-groups 20 to 35 than in the others, and it is one of the marks of changing industry that it is more difficult for the middle-aged to get employment.

The Census figures on page 204 also distinguish between occupations according to status.

It will be noticed that if we include the unemployed in the category of manual workers, the latter form two-thirds of the entire occupied population. And the proportion occupied in agriculture and fisheries is, roughly, equal to the proportionate contribution of those industries to the net national income.

For the years since the 1931 Census our main information regarding employment is derived from the returns of the Ministry of Labour dealing with insurance schemes. Some additional information, however, is provided by the inquiries made under the Import

Duties Act and through the 1935 Census of Production.

The statistics provided by the Censuses of Production also distinguish between operative and administrative workers, and we are able to continue for part of the occupied population (approximately one-third)

TABLE 41

ECONOMIC STATUS OF OCCUPIED POPULATION, 1931.

Occupation.	Total Occupied. '000	Per Cent.
1. Managerial	1,180	5·5
2. Working on own account . .	1,273	6·0
3. Clerical, Professional and Commercial .	3,698	17·4
4. Agriculture and Fisheries . . .	936	4·4
5. Other Manual Workers . . .	11,713	54·9
6. Unemployed	2,525	11·8
Total .	21,325*	100·0

* Including armed forces, hence discrepancy with previous total.

the analysis begun in the previous table. As the industries covered by the Census contribute so large a proportion of the net national income and as they also include the "basic" industries, these statistics will assist in indicating some general trends.

The table opposite shows the persons actually employed in the industries or trade groups during the three Census years 1924, 1930 and 1935.

TABLE 42

PERSONS EMPLOYED ACCORDING TO EACH *CENSUS OF PRODUCTION*, 1924, 1930 AND 1935. BY OPERATIVE, ADMINISTRATIVE AND TOTAL GROUPINGS.

(Compiled from *Final Report Fourth Census of Production* and *Preliminary Returns of the Fifth Census of Production*, excluding outworkers numbering approximately 26,000.)

Trade Groups.	Persons Employed.								
	1924.			1930.			1935.		
	Operative.	Administrative.	Total.	Operative.	Administrative.	Total.	Operative.	Administrative.	Total.
	'000	'000	'000	'000	'000	'000	'000	'000	'000
1. Textiles	1,198·2	63·8	1,262·0	997·3	65·0	1,062·3	984·7	64·9	1,049·6
2. Clothing	430·2	43·8	474·0	444·2	47·9	492·1	466·1	49·8	515·9
3. Leather	43·1	5·3	48·4	40·9	5·2	46·1	42·8	5·2	48·0
4. Food, Drink and Tobacco	369·6	70·2	439·8	387·3	83·2	472·5	401·4	104·0	505·4
5. Timber	122·8	14·7	137·5	149·3	18·5	167·8	148·4	18·7	167·1
6. Paper, Printing and Stationery	290·3	52·3	342·6	319·9	60·2	380·1	329·1	71·8	400·9
7. Mines and Quarries	1,254·9	26·1	1,281·0	998·6	20·2	1,018·8	818·3	22·3	840·6
8. Clay and Building Materials	580·0	48·0	628·0	624·9	53·5	678·4	623·3	56·8	680·1
9. Chemicals, etc.	146·9	35·2	178·1	136·7	41·5	178·2	140·9	50·3	191·2
10. Iron and Steel	356·1	42·8	489·9	446·8	46·8	493·6	481·9	51·9	533·8
11. Non-ferrous Metals	100·5	14·4	114·9	94·6	15·2	109·7	103·1	16·1	119·2
12. Engineering, Shipbuilding and Vehicles	852·1	133·4	985·5	914·5	161·2	1,074·7	887·7	173·9	1,061·6
13. Miscellaneous	146·0	19·7	165·7	148·2	25·9	174·1	151·5	27·2	178·7
14. Public Utility Services and Government Departments	678·4	63·0	741·4	713·4	79·8	793·2	690·9	91·9	782·8
15. Small Firms	—	—	680·6	—	—	758·0	—	—	758·0*
Grand Totals	6,669·1	636·7	7,989·4	6,416·6	724·1	7,899·6	6,270·1	804·8	7,833·9

* Assumed that there is no alteration between 1930 and 1935.

The general tendency for the number of administrative workers to increase even where there has been a decline in the total number of operatives will be noticed.[2] Further, even in the "Textile" group the number of administrative workers has increased. Although between 1924 and 1935 there was no increase in the number of administrative workers in the "Mines and Quarries" group, there was an increase between 1930 and 1935, despite a continued decline in the number of operatives. Professor Bowley remarks upon this tendency, which we have noticed in industry, in commerce as well. The main reasons for this are to be sought in the higher ratio of fixed capital employed in industry, and the increased mechanisation of industrial processes which at the one and the same time increases the productivity per operative as it increases the administrative work.[3]

Total employment in the Census industries is shown to have declined since 1924, despite a notable increase of 172,000 administrative jobs. The decline in the number of occupied operatives between 1924 and 1935, amounting to approximately 400,000, offsets that increase by about 230,000. Thus the greater volume of output and the fairly stable value of the net output which was shown in Chapter II. has been obtained by a reduction (approx. 6 per cent.) in the number of operatives and an increase of no less than 27 per cent. in the number of administrative workers between 1924 and 1935.

So far as operative workers are concerned, this analysis shows that in the last eleven years a greater quantity of the basic necessities of life is produced by a smaller number of them, and indicates the possibilities of utilising their services for goods and services of a more luxury character.[4] But it is important to notice that the decline in the employment of operatives is not by any means entirely due to the increased pro-

ductivity per operative. In the " Textile " and " Mines and Quarries " groups the decline is also due to falling markets—most particularly the markets abroad. Thus it will be seen that so far as the net value of the total output has not declined and the total productivity has increased, greater expansion has been necessary in other groups (than " Textile " and " Mines and Quarries ") to offset the decline in these two.

This leads to some general remarks upon the trade groups as employers of labour. In 1924, " Mines and Quarries " took premier place. By 1935 that group had fallen to third and was replaced by " Engineering, Shipbuilding and Vehicles," which, however, includes the " new " motor industry. Despite the " decline " of the industry, " Textiles," if we include the hosiery industry, retains its second place. If we exclude the " Public Utility Services and Government Departments," [5] then the " Clay and Building Materials " group is next in importance. This fits the general impression of the importance of this industry in the general industrial structure.

The important facts of the general industrial structure, analysed according to the insured and employed population of the United Kingdom, is given in the table on page 208.

In this table we have divided the industries into three categories : " Declining " and " Expanding " industries, and the isolated group of Commerce, Insurance, Banks and Finance. These terms are not used with any great precision, but rather to indicate the general trends of particular industries. While, for example, both " Cotton " and " Coal " have a long period or secular downward trend and have lost ground absolutely, " Railways " have notably suffered from a relative decline compared with the motor-transport services. Thus the descriptive adjectives are to be used with caution, and care is needed to distinguish

TABLE 43

NUMBER OF INSURED PERSONS AND INSURED PERSONS EMPLOYED IN JULY OF 1932, 1935, 1937 AND 1938 IN THE UNITED KINGDOM,* AGED 16–65.

INDUSTRIES.	Insured Persons.				Insured Persons Employed.†			
	1932.	1935.	1937.	1938.	1932.	1935.	1937.	1938.
	'000	'000	'000	'000	'000	'000	'000	'000
A. "DECLINING":								
1. Cotton	518	442	409	393	385	342	367	280
2. Coal-mining	1,045	939	868	858	689	645	722	667
3. Agriculture‡	—	—	—	720	—§	—§	—§	689
4. Shipbuilding and Repairing	182	157	173	175	66	90	134	136
5. Railway Services	134	140	177	161	109	129	168	149
6. Water-transport	330	311	300	302	213	222	230	229
7. Woollen and Worsted	234	222	223	216	194	191	200	168
B. "EXPANDING":								
I. (*a*) Little affected by Depression								
8. Clothing (including Hosiery)	720	723	737	744	620	636	664	647
9. Food, Drink and Tobacco	536	554	579	588	469	499	535	540
10. Paper, Printing, etc.	418	420	439	446	375	390	417	416
I. (*b*) Greatly affected by Depression								
11. Iron and Steel Manufactures	237	232	256	259	130	181	228	203
12. Engineering (including Electrical)	725	700	822	862	504	611	780	799
II. Super-normal Expansion								
13. Distributive Trades	1,950	2,007	2,061	2,096	1,706	1,806	1,903	1,922
14. Road Transport (including Train and 'Bus)	390	405	411	416	330	362	384	387
15. Misc. Consumer Services‡	916	1,035	1,090	1,238	745	902	981	1,116
16. Gas, Water and Electricity	174	200	218	222	155	180	202	204
17. Misc. Electrical Industries	143	178	219	222	126	162	208	204
18. Building	857	977	1,035	1,050	602	837	919	908
19. Misc. Metal Trades	433	469	520	520	339	418	489	458
20. Motor Vehicles, Cycles and Motor-cycles	252	286	352	389	205	259	335	359
C. COMMERCE, INSURANCE, BANKS AND FINANCE	243	261	269	273	229	250	260	263
Total: All Insured, excluding Agriculture	12,808	13,058	13,697	14,120	9,997	11,066	12,288	12,301
Total: All Insured, including Agriculture	—	—	—	14,840	—	—	—	12,990

* Aged 16–64. *Ministry of Labour Gazette*, for August and November: See also December 1938.

† Insured persons, less unemployed.

‡ Excluding National and Local Government. Domestic Servants first insured April 1938. Agricultural workers first insured 4th May 1936. But private gardeners were not included until 1937.

§ *Agricultural Statistics*, 1937, part i., p. 48. Number of workers on agricultural holdings above one acre in the United Kingdom: 1929—929,102; 1932—846,929; 1935—823,421; 1937—776,872.

whether the decline is in the absolute output, value of net output or by employment of insured workers or relative to the expansion of other industries. Agriculture, for example, has employed less labour ever since the early post-war years ; nevertheless, the output, according to the index of production, is greater than at any time since 1924. Nevertheless, we have placed it in the " Declining " industries group because, on balance, it shows those characteristics unlike, for example, " Food, Drink and Tobacco." The increased productivity of that group is about the same as that of " Agriculture," but the agricultural production has been increased with the aid of very considerable Government assistance, whereas the drink and tobacco trades in particular have suffered adversely from increased taxation.

Generally speaking, " Cotton," " Coal-mining," " Agriculture," " Water-transport " and the " Woollen and Worsted " industries have not shown the resilience of the other industries in expanding employment with the recovery from the slump of 1929–32. Moreover, their general long-term trend has been downward. " Railways " have already been considered to some extent. It may be added, however, that the successful conclusion of the " Square Deal " campaign may prove that this industry should have been placed among the " Expanding " category. On the other hand, the development of motor-transport services and private cars must always mean a relative loss of importance in both the goods and the passenger services of the railways.

Both " Railways " and " Shipbuilding and Repairing " show resilience in employment from the slump years. But the latter's prosperity is so largely dependent upon the international economic situation [6] that it can only be placed in the " Declining " industries.

The steady increase in employment of those industries little affected by the depression, particularly

" Clothing " and " Food, Drink and Tobacco," is a characteristic of that development we have indicated to be taking place in British industry—the tendency for a larger proportion of the net national income, and hence a larger proportion of labour, to be expended on the production of consumer goods and services. This is borne out if we also look at the employment in the " Distributive Trades " and the " Miscellaneous Consumer Services," [7] where the increase in employment for both groups between 1932 and 1937 is nearly 18 per cent., despite the expansion that had been going on previously.

Indeed, we find that despite the recovery in those industries which are greatly affected by the depression, it is to the next category of " Super-normal Expansion " industries that the considerable re-employment and the expanding employment of labour is to be found (apart from employment due to the war). This is especially so of the distributive and miscellaneous consumer services, building, the metal trades and motor vehicles, cycle and motor-cycle trades.

All these " super-normal " expanding industries, with the exception of the metal trades, are linked up in some way directly with consumer goods and services. And it is some measure of the changes which have been occurring in the structure of British industry that, before the war, it was to these industries rather than to the old basic industries that room for the increased supply of labour was to be found,[8] or where re-employment was more easily obtainable. It is seen from the table that the distributive trades alone employed nearly one-sixth of the insured employed (excluding agriculture), whereas in the early post-1918 period such employment only accounted for one-ninth.

It is not intended to imply that this means there is necessarily a disproportionate effort going into these industries. The implication, rather, is that the nation can afford so to utilise so much of its resources instead

of producing capital goods. At the same time, however, it does mean that a vast quantity of " luxury " goods and services are produced before all " necessary " goods and services for many people are assured. On the other hand, it also means that in time of war, we have large resources of labour and capital which may be adapted to war purposes. These represent part of our reserves, even though adaptation may give rise to very considerable difficulties.

Finally, coming to " Commerce, Insurance, Banks and Finance," we have a pre-eminent example of steady expansion. There is never any very marked disparity between the number insured and the number employed, and during a period of recovery, while moderate expansion takes place, the gap between these two also closes. This aspect, however, of the concentration of unemployment in certain industries is of considerable importance, which we now have to consider.

Some measure of the importance of total unemployment can be given by the fact that between 1932 and 1937 there were over 2,000,000 persons re-absorbed into industry. In addition, there was a net increase in the working population of over 2,000,000 persons. It appears, then, that between depression and recovery industry has absorbed at least 4,000,000 persons.[9] This, then, is some measure of the resilience of British industry and, on the other hand, some measure of its instability.

The industries on whom unemployment falls most severely are the " Declining " industries (but particularly excluding agriculture), and those which we have shown to be greatly affected by the depression, though in addition industries such as " Building " are also greatly affected. In such industries as " Coal-mining," where there is a secular decline, unemployment tends to be a permanent feature. Moreover, as these industries are located in particular areas, it affects seriously

the welfare of the country as between " Inner and Outer Britain." [10]

It has been pointed out that, while the number of insured persons in Great Britain increased by 23 per cent. between 1923 and 1938, in the same period the number increased in Inner Britain (South of England and the Midlands) by 40 per cent., while the increase in Outer Britain (North of England, Scotland and Wales) was only 6 per cent. Moreover, while the number of insured employed in Outer Britain in July 1923 was approximately 5,000,000 and was only increased to 5,250,000 by July 1938, the comparable figures for Inner Britain were 4,500,000 and 6,500,000 respectively.

Thus this change in the geographical distribution of the employed population reflects a most important change that is occurring in British industry. Inner Britain is an area dependent mainly upon the home market, and is not a centre for the heavy industry. Of that area, the Midlands are most nearly connected with the export trade and felt the depression most. Outer Britain is intimately connected with the export trade—shipbuilding, ship-repairing, cotton, coal and textiles—and is the area for the concentration of the heavy industries which are the less prosperous.[11]

From these facts it is to be expected that Inner Britain would show a much smaller ratio of unemployment to insured population than Outer Britain. This is shown to be so in the statistics on opposite page of the regional distributions of the insured population.

The Midland area does show a higher percentage of unemployed than elsewhere in Inner Britain. The North did not recover from the depression, indeed remained stagnant until 1934 ; while in Wales that unhappy state was maintained until 1936. Even so, the percentage unemployed remains high, and it can be easily realised that here is a fundamental change

occurring in the structure of British industry. In this connection, however, it is worth noting the marked mobility of labour which has gone some way to make the adjustment between industries and areas. There has been an efflux of labour since 1929 from coal, shipbuilding, cotton and wool textile. The movement into the more prosperous metal, manufacturing and

TABLE 44

REGIONAL DISTRIBUTION OF THE INSURED POPULATION AND PERCENTAGE UNEMPLOYED IN EACH REGION.

(Compiled from *Ministry of Labour Gazette.*)

Region.	Insured Persons.		Unemployed.		
	July 1938.		July 1929–36.	July 1937.	July 1938.
	Per Cent.	'000.	Per Cent.	Per Cent.	Per Cent.
London	20·2	2,991	8·8	6·3	8·0
South-East	8·9	1,312	7·8	6·7	8·0
South-West	7·4	1,098	11·1	7·8	8·1
Midlands	14·8	2,183	15·2	7·2	10·2
North-East	10·4	1,541	22·7	11·0	13·5
North-West	15·0	2,207	21·6	14·0	17·8
North	5·6	832	—	17·9	18·3
Scotland	11·1	1,636	21·8	15·9	16·3
Wales	4·4	652	30·1	22·3	24·7
Northern Ireland	2·2	330	—	23·3	28·3
United Kingdom	100·0	14,782	16·9	10·8	12·9
Special Schemes	—	158	—	1·5	1·7

engineering trades, has been less marked but it has been very notable in respect of building, public-works contracting, the motor industry, entertainment and the distributive trades. Indeed, so marked has the influx been that, except in the motor and aircraft trades, the expansion of these industries has been accompanied by an increase in the proportion unemployed.[12]

Two factors, technological and seasonal unemployment, are important from the viewpoint of industrial

structure. It is estimated that in America about one-seventh of the unemployment is, over a period of years, due to technological unemployment, *i.e.* unemployment caused by the replacement of manual by machine labour. Lord Stamp has estimated that "some 250,000 of the unemployed in Great Britain may be the victims of scientific innovation." Further, while the aggregate of the figures for unemployment shows markedly little seasonal variation, nearly every industry is affected to some degree. But, according to Saunders, the seasonal patterns in the different industries counteract each other to a considerable extent. Nevertheless, he has shown that in 1932 between 5 and 7 per cent. of the insured population were out of work some time because of seasonal fluctuations.

Probably, therefore, the total unemployment (on the average) from both these causes is in the neighbourhood of 500,000. This is some measure of the "wastage" due to these causes alone, and as technology develops more rapidly the problem of modifying and changing the structure of industry without such wastage becomes of increasing importance. The problem is part of the larger one of keeping the factors of production at work at the optimum level. With the changes which are occurring, this may be a will-o'-the-wisp, but there is obviously immense scope for a better balance between industries and a greater stability at a higher level in production and employment.

PART II.—The Organisation of Labour

In this section we can only indicate some of the important facts and trends in Trade Union organisation in Great Britain.[13] Moreover, while the Trade Unions play an important part in the work, for example, of the Trade Boards (of which there are forty-seven operating in forty-one trades), it is not possible to deal

with this or any other important subject which does not come directly within the ambit of Trade Union organisation.

A Trade Union, according to Mr. and Mrs. Webb, "is a continuous association of wage-earners for the purpose of maintaining and improving conditions of their working lives." It is in this sense that we discuss Trade Unionism.

The total membership of Trade Unions, in 1920, in the United Kingdom was over 8,000,000—that is, almost 20 per cent. of the total population and about 60 per cent. of all employed male workers. During the previous thirty years there had been numerical expansion by sexes, by area and by trades, but "relatively little change in the internal structure of the several Unions." Since that time there have been changes in all these, and the table shown on page 216 sets out the important numerical changes since 1920.

These statistics relate to Trade Unions of all types and exaggerate the paying membership. Nevertheless, they are comparable from year to year. It will be marked that female workers are relatively unorganised compared with male workers. But this is due not only to the fact that there are less females in industry than males, and that they leave their employment to get married, but also because they are more difficult to organise ; partly owing to the nature of their employment. It will also be noted that after the critical years of 1922, membership declined rapidly. There was another set-back after the General Strike of 1926 and the Trades Dispute Act (1927),[14] and yet again during the recent depression.

Among the "old" industries, Agriculture, Mining and Textiles have been adversely affected since 1920. Even if 1936 is compared with 1925, there is still a marked fall-off of membership in these industries. On the other hand, Clothing, Distribution, Commerce

TABLE 45

TRADE UNION MEMBERSHIP.

TRADE GROUP.	TRADE UNION MEMBERSHIP.*			
	1920.	1925.	1933.	1936.
	'000	'000	'000	'000
1. Agriculture	211	47	31	33
2. Mining	1,158	914	563	679
3. Metals	1,171	683	519	686
4. Textiles	834	626	455	429
5. Clothing	236	168	153	176
6. Building and Woodwork	650	401	311	356
7. Paper and Printing	227	207	186	204
8. Other Manufactures	140	84	69	70
9. Transport and General	2,497	1,534	1,115	1,504
10. Distribution and Commerce	400	222	268	324
11. Government and Teaching	671	530	648	765
12. Others	153	81	65	82
All Trade Groups	8,348	5,497	4,383	5,308
Male	7,006	4,666	3,655	4,506
Female	1,342	831	728	802

* See *Trade Unionism To-day*, p. 519. Membership in 1938, 6,054,000.—*Ministry of Labour Gazette*, September 1939.

and Government and Teaching show notable increases between 1925 and 1936. Indeed, the balance between the numerical strength of the old basic industries and the newer and " black-coated " industries has changed. Government and Teaching even shows an increase on the 1920 figure of membership.

While a great deal of the decline in membership

can be explained by reference to the downward secular trend of particular industries, part of the decline is due, for example, in the building industry, to the collapse of the organisation dealing with semi-skilled workers, and is of importance as showing one of the weaknesses of the Trade Union movement. Indeed, in the motor trade, in distribution, in engineering, depression in industry is not the sole explanation of Trade Union weakness. Not least of the reasons is that the organisation of labour has failed to meet the development of mass-production establishments, despite the fact that superficially it would appear that this was admirable ground to sow Trade Union sentiment.

Neither the Teachers' Unions nor the Civil Servants' Unions belong to Trades Union Congress, and the bulk of these workers are not concerned in *industrial* disputes. It must be remembered, however, that the latter are prevented from becoming members by the Trades Dispute Act, 1927. The vast majority of the other Trade Unions, numbering approximately 1000 are members,[15] and in 1937 there were 623 delegates representing 4,008,647 members at the Trade Union Congress. Membership of Congress, like membership of a Trade Union, is voluntary.[16] Nevertheless, the General Council of Trades Union Congress can speak for nearly all organised labour, representing some 25 per cent. of the total occupied persons.

There is also an independent Scottish Trades Union Congress with an affiliated membership in 1937 of 326,000, but the vast majority of this membership is also affiliated to the British Trades Union Congress. The separate Scottish Trade Unions exist mainly in the textile and building trades and among printers and bakers. Many of them are small and do not belong even to the S.T.U.C.

While T.U.C. attempts to shape high policy and

to settle any internecine conflicts among its members, it claims no right to settle finally any question such as : Which Union must enrol which workers ?

To examine the structure of Trade Unionism it is necessary to distinguish between Craft, Industrial, General Workers' Unions, Federations of Unions and Amalgamations.

Members of the Craft Unions are skilled workers who have been trained for a particular trade, but who may be employed in different industries ; for example, the United Pattern Makers. The London Society of Compositors is the aristocrat of Craft Unions and, as distinct from the United Pattern Makers, is a local union. Again, the cotton industry has Craft Unions for each section of the industry, though these Unions exemplify another characteristic, that of local federation of Craft Unions for special purposes, *i.e.* in Lancashire, for the purpose of collective bargaining with the main employers' federations.

Industrial Unions aim, like the C.I.O. in the United States, to bring all the workers into one organisation. This type is exemplified by the National Union of Railwaymen, which was formed by amalgamation of smaller Unions.

Both Craft and Industrial Unions (particularly the former) tend to have one thing in common—the association of the skilled worker. The General Unions were formed to meet the needs of the unskilled and semi-skilled workers who were not eligible for membership of the other Unions. The two most important General Unions are the Transport and General Workers and the National Union of General and Municipal Workers.

Federations of Trade Unions differ from amalgamations in that the affiliated Unions maintain control over their own funds and organisation. But, of course, they work together as a federation for particular pur-

poses, especially collective bargaining. The most important Unions are federated bodies. The Miners' Federation of Great Britain had a membership of 544,705 in 1937, and dominates the Mines and Quarries group. It is a federation of distinct Unions of very varying size.

Despite the difficulties and the opposition encountered when amalgamations are attempted, there has been a number of some importance in recent years. The Amalgamated Engineers' Union was formed by the amalgamation of a large number of Craft Unions. The tendency has been to amalgamate to avoid overlapping and inter-union disputes. Nowadays a general worker can belong to one of two main General Unions ; before the war he could have belonged to any of ten.

The extent and importance of federation and amalgamation amongst Trade Unionists may be gauged from the fact that six of the most important federations and amalgamated Unions have a total membership of about half the affiliated T.U.C. membership.[17]

But these figures cover some important weaknesses. The cotton and printing industries show little signs of amalgamation (as distinct from federation), and are " still organised almost exactly as they were in 1914, in a number of parallel sectional Craft Unions loosely federated into wide industrial groupings." Trade Unionism still draws most of its strength from the old basic industries' Unionism, but it is in these industries that the secular decline is affecting not only the industrial structure but the membership of the Unions. Numerically, the Unions are weaker and the difficulties are greater. On the other hand, in the newer industries such as the motor-car industry, Unionism has not been able to make headway. Despite the numbers who belong to the General Workers' Unions, the membership represents only a small proportion of the potential strength. Clerical workers, distributive workers and

shop assistants are relatively unorganised. The Bank Officers' Guild and the Bankers' Association have not been "recognised" by their banking employers. The general mass of agricultural workers, except some 32,000, is unorganised. Vast numbers of clerks, practically all typists, workers in cafés and restaurants, and domestic workers are completely unorganised.

In brief, labour organisation has not responded adequately to meet the organisation among employers. Large-scale employment, the mobility of labour between industries, the existence of a large army of "machine-minders," the closer control over industry by fewer people, the legal difficulty of interpreting the powers of the Unions under the Trades Disputes Act, 1927, have robbed Trade Unionism of much of its vigour.

Despite, or because of the recognition now afforded officially to Trade Unionism, there exist characteristics which are those of weakness rather than of strength. Trade Unionism has to find new strength and new vigour in the most difficult task of organising classes of workers whose conditions militate against organisation. This is a much more difficult task than retaining the old membership, and so far it has not been adequately tackled, let alone well done.

NOTES

[1] The Northern Ireland Census of Population comparable to the 1931 Great Britain Census was taken in 1926.

According to that Census the proportion of occupied to total population in Northern Ireland was 57·1 per cent.

See *Ulster Year Book*, 1938, p. 19.

The analysis, which was confined to Great Britain, does not lose any force in indicating the general importance of occupied populations. Moreover, the relative importance of Northern Ireland either by population or by contribution to the net value of the output is probably only between 2 and 2½ per cent.

[2] While this is a general tendency, Mr. Hillman (*Economic Journal*, June 1939, p. 277, " Size of firms in the Boot and Shoe Industry "), points out that the ratio of administrative to operative workers is fairly constant for that industry. This agrees with the statistics given in the above table.

[3] A minor factor is that administrative workers often retain their employment after an amalgamation when operatives do not.

[4] *Assuming* that it is considered that a sufficient proportion of capital and effort is being applied to the basic goods.

[5] The growth of Public Utilities is indicated by these statistics, but their real importance is difficult to gauge. Probably the best measure is the capital involved. See H. Campion, *Public and Private Property*, chap. v.

[6] Though, of course, rearmament and war can give a spurious prosperity.

[7] The increase in insured persons employed between 1937 and 1938 is mainly due to the inclusion of Domestic Servants.

[8] The problem of the employment of " new " labour is probably a short- rather than a long-term problem. Between 1934 and 1937 the number of persons under fifteen years of age declined by 660,000. Thus, as the " population grows older," new labour resources get less and the problem becomes one of adapting the older people to new problems rather than finding new jobs for young people.

[9] For a full account of this aspect of unemployment, see *Britain in Recovery*, p. 95 et seq.

[10] This terminology is borrowed from the *Economist*, 7th January 1939, p. 4.

[11] We exclude from our considerations the revived " prosperity " due to rearmament.

[12] See *Economist*, 31st December 1938, p. 697.

It is also notable how concentrated is the unemployment among the unskilled and semi-skilled manual workers. In 1931, 30·5 and 14·4 per cent. of all insured unemployed respectively. See also *Ministry of Labour Gazette*, February 1940, pp. 42–3.

[13] For a detailed account, see *British Trade Unionism To-day* (1938), ed. G. D. H. Cole.

[14] The Act introduced limitations upon the right to strike. A " sympathetic " strike now carries with it all the dangers of prosecution. See J. H. Richardson, *Industrial Relations in Great Britain*, pp. 48–9, and *Trade Unionism To-day*, Part II., chap. vi ; *Trade Unions and the Law To-day*, pp. 124–32.

[15] The definition of a Trade Union is arbitrary. In deciding the

number of Trade Unions there is a difficulty in deciding whether, for example, the South Yorkshire Miners' Association, which is a Trade Union for certain purposes, and is also a member of the Miners' Federation of Great Britain, should be counted as a distinct Union or not.

[16] It is exceptional for membership to be compulsory in order to obtain work.

[17] These are: Mineworkers' Federation of Great Britain, 518,425; National Union of Railwaymen, 337,848; Transport and General Workers, Union, 523,300; National Union of General and Municipal Workers, 339,821; Amalgamated Engineers' Union, 248,209; Amalgamated Society of Woodworkers, 120,684. In 1938 there were 61 Federations with an approximate gross total menbership of 2,976,000 out of a total Trade Union membership of 6,054,000.

CHAPTER X

TRANSPORT AND POWER

TRANSPORT and Power are two of the most essential services required by industry, agriculture and distribution, and rapid changes have recently taken place in both. They are closely connected with the location of industry. Lines of communication, such as railways, were originally built to serve centres of population and of industry, and have, in their turn, influenced industrialists in their choice of factory sites. Cheap power has influenced the situation of factories wherever power is necessary in quantity. Industries have settled near rivers for water-power and near coal-fields for steam-power. Although these are not the only factors in location,[1] they are important and, recently, technical changes have given them added importance in the shifting location of industry. Because of their intimate connection with this one factor, it is convenient to treat both these services in this chapter. They are treated generally as well as from the point of view of their special effect on the location of industry.

An even location of industry would imply that the same proportion of the population were engaged in any one occupation in all areas. This is fairly true for personal services such as medicine and hairdressing. Industry would then be distributed over the country in direct ratio to the population. But actually some industries are located in special centres and industry generally is concentrated mainly in a few large areas.

Recently, however, there have been fairly rapid changes in the location of industry due in part to changes in transport and power.[2]

Some of the most important changes in the location of industry must be set out. The changed composition of industry has altered the distribution of factories amongst areas. It has been shown previously that some industries provide a greater proportion of net output than in the past, and some a smaller proportion. Some of the latter are highly concentrated in location for historical and technical reasons. Such are the cotton and woollen industries, coal-mining, the iron and steel and jute industries. The newer industries can choose their location in accordance with the economic conditions of to-day rather than of the past.[3] They may become equally concentrated in future but in different areas and for different reasons. Some of the new industries are suited to a type of location different from the older ones.[4] Shifts in industry, then, are not necessarily the removal of factories from one area to another, but a relative decline in one area compared with an advance in another.[5]

A measurement of this change in location can be shown by the percentage of net output of industry produced in different regions at certain dates. It can be seen from Table 46 that the Midlands and South [6] have gained, while the older industrial regions, such as South Wales, Lancashire and Yorkshire, have lost ground. The regional distribution of the employed population is not such a good indication of the change, as it is affected by short-term changes in employment, though it is useful to compare the statistics in the table opposite with those of the distribution of the industrial population shown in the previous chapter.

The development of new forms of transport and changes in the method of applying heat and power to industry have influenced location considerably. In

transport, motor traction has been the most important factor, although rail facilities have improved. The cost of transport is determined by carrying and handling changes ; and for short hauls, handling charges are generally as heavy as carrying charges. With rail

TABLE 46

PERCENTAGE OF TOTAL NET OUTPUT OF INDUSTRY IN CENSUS OF PRODUCTION AREAS 1924, 1930 AND 1935.

	1924.	1930.	1935.
Greater London	17·1	21·2	24·8
Lancashire and Cheshire	20·8	17·8	15·5
West Riding of Yorkshire	12·6	10·6	10·1
Northumberland, Etc.	5·9	5·3	4·3
Warwick, Etc.	11·6	12·2	12·3
Rest of England	15·9	19·0	20·2
South Wales and Monmouth	5·3	3·8	3·2
Rest of Wales	0·6	0·6	0·7
Scotland, West and Central	5·0	4·9	4·5
Rest of Scotland	5·2	4·6	4·4

transport, three, and often four, handling charges must be incurred.[7] With road transport only two are necessary. Railways are not so ubiquitous as roads and the choice of sites convenient for transport is smaller. General economic changes have added weight to this movement. The home market is gaining in importance at the expense of international trade. The practice of distributors of keeping smaller stocks on

hand is linked with small and regular deliveries of supplies.

Changes in power have made the location of industry near coal-fields less necessary. Where the cost of power was an important item, industries had to settle near coal-fields owing to heavy cost of transporting coal. But with the development of the Grid System electricity can be transported cheaply over long distances.

Turning now to a discussion of transport generally, the size of the different sections is shown below :

TABLE 47

NUMBER OF INSURED WORKERS IN TRANSPORT IN 1938.

Railways . . .	161,000
Road Transport . .	416,000
Water Transport . .	302,000
Total .	879,000

This is not an accurate index of the relative importance of the various types of transport. Ton and passenger miles per worker may vary considerably, and the number employed in shipping includes those engaged in carrying, under the British flag, between oversea and continental countries. Employment in civil aviation is not given separately in the Ministry of Labour returns, but the amount is not great.

The railways are the core of the transport system for most commodities, and for some heavy goods, such as minerals, they carry almost all the tonnage. In the last century they stimulated the development of the new industries, mainly concentrated in existing industrial areas, but the development of new districts, such as Middlesbrough, and later Scunthorpe, was not allowed to be shackled by poor facilities. Recent industrial changes have not required the same close connection

between railways and industry ; the newer industries are mainly producing a mass of light products suitable for road transport and they have helped, and been helped, by the development of road haulage rather than rail. The main development of the railways in recent years has been in the increasing provision for suburban passenger transport, and that mainly in the London area. Considerable progress also has been made in improving terminal facilities, doubtless under the stimulus of road competition.[8]

The rate-structure of to-day is a survival stereotyped by the Act of 1921. The working of the railways and their ability to compete with other forms of transport have been greatly affected by this system. In the past the policy was that of charging what the traffic would bear. Consequently the charges were high on valuable goods and low on the heavy low-priced mineral traffic. Prices were not fixed in accordance with the actual cost of services rendered, as it is scarcely practicable to ascertain these costs. This structure was crystalised by the Act of 1921, though alterations were made in the extent and method of control over rates. A rate-book, open to public inspection, is issued, and these rates can only be varied by permission of the Railway Rates Tribunal, except for certain reductions if not more than 40 per cent. below the standard rate. Exceptional rates are, however, common to-day. In addition, rebates are allowed under the Railway Freight Rebates Act (1936) on coal, coke and patent fuel for export or foreign bunkers. Rates may only be increased on application to the Railway Rates Tribunal, which has recently granted an all-round increase of approximately 5 per cent. Partly because of the rate structure, road transport has obtained some of the cream of the traffic and left the railways with the less profitable heavy traffic. Recently the railway companies agreed with other transport interests (following the Square Deal

campaign) on an alteration of this system. Any changes would, however, have required the sanction of Parliament. This has been rendered unnecessary by the war arrangements made between the Government and the railway companies in February 1940, by which a minimum net revenue of £40,000,000 is to be guaranteed by the State. Any earnings above that sum up to £43,500,000 and half any further excess up to "standard revenues" laid down in 1921 (but never since attained), is also to go to the railway owners.

The following table shows the work undertaken by the standard gauge railways during the past few years :

TABLE 48

PASSENGERS, GOODS AND LIVESTOCK CARRIED BY RAILWAYS IN 1929, 1937 AND 1938.

	1929.	1937.	52 Weeks ending 24th December 1938.
	'000,000.	'000,000.	'000,000.
Number of Passengers Carried (including Season-Ticket-Holders) . . .	775·2	879·7	845·2
Tons of Goods Carried . . .	329·3	297·2	267·0
Number of Livestock Carried . .	17·7	9·2	7·6 (estimated)

The passenger figures exclude the L.P.T.B. Railways and the Whitechapel and Bow Joint Railway.

The increase in the passengers carried is largely due to the Southern Railway. The L.M.S. also had a small increase. This shows the influence of the increasing population of Greater London and the importance of this district both for commercial and industrial employment. The fall in 1938 is due to the increase in fares. The average passenger fares on the four main-line companies were :

	L.M.S.	L.N.E.R.	G.W.R.	S.R.
1929 . .	1/2·34d.	1/1·55d.	1/3·92d.	1/1·45d.
1937 . .	1/1·15d.	1/0·84d.	1/4·30d.	11·18d.
1938 . .	1/2·22d.	1/1·50d.	1/5·32d.	11·54d.

The fall in fares between 1929 and 1937 is due to the introduction on a large scale of cheap-ticket facilities, and resulted in a fall in receipts of about 5 per cent.

The fall in tonnage of goods carried should be compared with the *Economist* index of business activity which increased by 6 per cent. during those years. The average fall in goods traffic was 9·1 per cent. from 1929 to 1937, and is divided as follows :

Classes 1 to 6 (Minerals) . . .	8·2 per cent.
Coal and Coke	9·1 per cent.
Other Merchandise	10 per cent.

the average receipts fell by 11·7 per cent. because the classes in which the fall was greatest are the most remunerative. The average rates per ton mile in 1937 were 1·03d. for coal and coke, 0·966d. for heavy minerals and 1·948d. for light merchandise.

It is impossible to blame road transport for all the fall in weight carried. The reasons are complicated. The rise of a new form of transport, road haulage and increasing competition from light-draught coastal steamers are undoubtedly important. Road transport is taking an increasing proportion of the lighter goods, but even so, the railway rates structure is only partially the cause of this. The changes in industry and distribution have benefited road transport at the expense of rail. The increase in light industries, largely located near their market, where the proportion of handling charges to carrying coasts preclude the use of rail

transport, is a further factor. Were it not for road transport, these factories would not be located there, but then, would they be anywhere? Catering as most do for an elastic demand, they need low costs and cheap transport.

Changes in technique have also affected the railways. The partial rationalisation of the iron and steel industry must have reduced its transport needs for any given output. Integration has been carried further, and there is less cross transport of pig-iron and raw steel for processing in other works. To-day an increased proportion of the output of industry is carried by the firm's own motor vehicles. The railways are playing a smaller part in the economy of the country. This long-term trend can only be stopped or reversed by a policy of restriction on competition that may well cramp the development of the lighter industries. Even so, such a policy would only be effective to the extent that road competition really has caused the decline in railway receipts.

From 1929 to 1937 the gross receipts fell by £6·8 millions and net receipts by £6·0 millions. The difference is accounted for by increased operating efficiency, mostly saving on labour and on fuel. Net revenue fell from £45·4 millions in 1929 to £37·9 millions in 1937. These figures can be read together with the settlement made between the Government and the railways mentioned above. The table opposite shows the percentage earnings on capital for all railway companies during recent years.

The total capital created is £1,155·4 millions for the four main companies divided as follows:

Shares and Stock . .	£796·4 millions.
Loans and Debentures Stock .	£359·0 millions.
Total	£1,155·4 millions.

Owing to the low return on the capital, the railways have had difficulty in raising money for improvements.

TABLE 49

PERCENTAGE RETURN ON RAILWAY CAPITAL.

	1929.	1937.
On Total Capital . .	4·06	3·39
Ordinary Shares . .	3·98	1·79
Debenture Shares . .	3·86	3·84
Preference Shares . .	4·24	3·84
Guaranteed Shares . .	4·24	4·22

The State guaranteed certain loans for alterations as part of its policy for increasing employment and, as we have shown, has reached a war-time agreement. The guaranteed loans have been issued by the Railway Finance Corporation and the London Electric Railway Finance Corporation.

Road transport of both passengers and goods is increasing, but in both cases it is the short haul that shows the greatest increase. Long-distance passenger traffic cannot compete with the railways in speed and comfort. The number of licences is increasing very slightly. It was about 46,000 in 1931–32, the first year of the Road Traffic Act, 1930, and about 49,000 in 1937–38. Similarly the number of road-haulage licences has not increased except for "C" licences. The number of passenger journeys on public service vehicles is just over 6,600 millions. It is unfortunately impossible to give similar figures for goods carried.

Road passenger transport is regulated by a series of Acts, the most important of which is the Road Traffic Act of 1930. Public-service vehicles must be

licensed under this Act by area Traffic Commissioners. This has reduced competition, ostensibly in the interests of road safety, but either by accident or design in the interests of the large amalgamations. This the Commissioners seem to admit.[9] Before the introduction of this Act this section of the industry had a number of large combines. Since then the movement has continued. The Reports of the Commissioners comment each year on the number of amalgamations. Since 1932 the number of operators has declined by over 1500, while the number of main-line buses has increased slightly. The following table shows the size of firms,

TABLE 50

SIZE OF COACH AND OMNIBUS FIRMS BY NUMBER OF VEHICLES.

(Compiled from Reports of the Area Traffic Commissioners.)

Number of Vehicles.	Number of Operators.	Percentage of Total Number of Vehicles.
Up to 9 . . .	4,371	21·5
10–49 . . .	298	10·6
50–99 . . .	52	7·1
100–199 . . .	37	10·2
200–499 . . .	23	14·7
500–999 . . .	14	18·5
Over 1,000 . . .	3	17·5
	4,798	100·0

including local authorities' services, in the industry. Of the operators with more than five vehicles, local authorities accounted for 94 with 8,514 vehicles and companies for 646 operators with 26,511 vehicles. One of the biggest combines is Thomas Tilling and British Auto-

mobile Traction Company Ltd. This is a holding company with a capital of over £2,500,000. It was formed in 1928 by Thomas Tilling Ltd. and British Electric Traction Ltd., and controls over fifty companies, mostly jointly with the railways. In three areas where the Traffic Commissioners give detailed information, this group controls over 30 per cent. of the licensed vehicles.[10] In Scotland, The Scottish Motor Traction Company controls ten firms accounting for most of the privately operated buses. The railway companies are concerned in this group. The importance of the combines is greater than appears on these figures, as a large proportion of the small operators are licensed for excursions and not for regular services. There does not appear to have been a great rise in fares. Some areas even report reductions under the system of control. For the whole country the average receipts per vehicle mile rose from 10·6d. in 1931–32 to 11·17d. in 1937–38, but these figures include all the local bus services. There has been an appreciable rise in coach fares. One authority, Mr. G. Walker, states that the railways and Traffic Commissioners have established "a level of road charges not far removed from railway rates." [11]

The Rail and Road Traffic Act of 1933 imposed a similar system of licensing on road haulage. Hauliers are classified into two main groups: those that ply for hire and those only transporting their own goods ("C" licences). The first class is subdivided into "A" and "B" licences, the latter being for vehicles used occasionally for hire. There is also a further subdivision in the "A" class for vehicles that are hired out on contract. This Act, like the other, has been definitely restrictive on "A" and "B" licences. "C" licences, however, cannot be refused and have extended considerably, as Table 51 on page 234 shows. A further development is the public regulation of wages and

labour conditions in order to limit competition with the railways. So far the process of amalgamation and large-scale organisation has not gone very far. The railways control nearly a dozen companies, including Hays Wharf Cartage and Carter Patersons, and they are also very large direct hauliers, though most of this is auxiliary to rail haulage and consists of collection and delivery. The Oswald Tillotson group is another large combine, and some of the omnibus firms have interest in the haulage concerns, but the independent operators

TABLE 51

CARRIERS' LICENCES.

(Compiled from the *Economist*, 7th January 1939.)

Type of Licence.	Number of Holders.			Number of Licences.		
	April 1936.	June 1937.	June 1938.	April 1936.	June 1937.	June 1938.
A . .	25,648	23,756	22,999	85,337	83,626	83,749
A Contract .	2,084	3,267	3,967	5,156	7,475	9,467
B . .	34,100	34,061	34,120	52,809	53,775	54,906
C . .	161,221	186,481	173,298	316,714	362,380	365,025

outnumber the others. At the moment there is a project for a major amalgamation of forty-two firms, with a capital of about £1,000,000. The size of units in the industry is small. Carter Paterson is about the largest, with a capital of over £500,000. Apart from the railways' fleets, only 20 per cent. of the vehicles with an " A " licence are in fleets of twenty-five and over. The average fleet of " A " licence holders was only 3·17 in 1936 and 3·45 in 1938. Competition is strong and rate-cutting is prevalent. Many of the Clearing Houses, which are quite numerous in certain parts of the country, are factors in this. According to evidence

before the Royal Commission on Transport, the Clearing Houses have a practice of quoting cut-rates to traders and forcing hauliers to accept such low rates or go without their return load.

The Railway Acts, since the war of 1914–18, have had an effect far beyond the actual industry. They have influenced the demand for new vehicles, both lorries and omnibuses. The production of new vehicles to-day is almost confined to replacements and to substitution of larger vehicles for smaller and Diesel for petrol engines. A further effect has been to increase the cost of transport somewhat, which will, in its turn, influence not only the location, but also the scale of industrial enterprise.

British shipping is dependent not only on the foreign trade of the United Kingdom, but also on international trade generally. The following table shows the percentage distribution of the earnings of

TABLE 52

PERCENTAGE DISTRIBUTION OF THE GROSS EARNINGS OF THE UNITED KINGDOM SHIPPING.

	1931.	1936.
Trade between U.K. and Empire Countries .	38·2	38·8
Trade between Foreign Countries and U.K. .	29·0	25·2
Trade between Empire Countries . .	10·5	7·7
Trade between Empire and Foreign Countries .	11·6	13·6
Trade between Foreign Countries . .	10·7	14·7

British shipping between the different types of trade. Between 30 to 35 per cent. of the gross earnings is obtained from trade in which the United Kingdom

is not directly concerned. In 1929, British ships carried 25 per cent. of the trade between foreign countries, 56 per cent. of the trade between Empire countries, 57 per cent. of the trade between the United Kingdom and foreign countries and 95 per cent. of the trade between the United Kingdom and Empire countries. The industry is an important export industry, and in spite of the decline in shipping, its contribution to the balance of payments is still considerable.[12]

There are several outstanding features in the recent history of shipping. First, shipping is almost everywhere a declining industry;[13] second, British shipping has declined more than world shipping; and third, there have been changes in the structure of the industry in this country. The following table shows the slackening-off in the gross tonnage of world-shipping since 1929 and also the fall in the tonnage of British ships. This is to be explained in the changed demand and supply relationship.

TABLE 53

GROSS TONNAGE OF BRITISH AND WORLD SHIPPING IN CERTAIN YEARS.

	British.	World.
1914 . .	19·26	49·09
1929 . .	20·17	68·07
1933 . .	18·70	67·92
1935 . .	17·43	64·89
1937 . .	17·54	66·29

The decline in the importance of international trade is widespread. Even Sweden, which has one of the

lowest tariff systems in the world, has suffered from the same movement.[14]

The League of Nations Economic Intelligence Service has estimated that the world production of manufactured goods increased by 19 per cent. and of primary goods, food-stuffs and raw materials by 10 per cent. between 1929 and 1937, but the quantum of world trade declined by 3 per cent. An estimate of the quantity of the export trade of this country shows the same failure to respond to a revival in business activity.

1930	72·3	million tons.
1933	51·9	„ „
1934	53·7	„ „
1935	53·5	„ „
1936	49·1	„ „
1937	57·0	„ „

Changes in the supply side have accentuated the effect of the decline in demand. There is greater carrying capacity per gross ton to-day than before 1914. Motor vessels have more cargo space than steamships of the same tonnage. In 1914 the tonnage of motor ships was negligible. In 1929 it was 1·92 millions for this country and 6·6 millions for the world ; in 1937 the figures were 3·74 millions and 13·75 millions respectively. The raising of the Plimsoll line has also increased the carrying capacity of British ships. The shortage of shipping during the war stimulated construction by neutral countries. This encouragement has since been continued by subsidies. This has reduced the elasticity of supply. The supply of shipping, *i.e.* gross tonnage, has always been very inelastic in the short period, but a temporary decline in demand was met by laying up ships. The effect of many of the subsidies has been to keep ships in commission when they would otherwise have been laid up. In this country the tramp shipping and tanker pools are an effort to counteract this increase in inelasticity

by paying compensation to owners of laid-up shipping.

These changes have affected the structure of the industry. The normal reaction to a depression in the industry is to lay up and break up. The British industry has not escaped this. Tonnage laid up increased from 0·63 millions in 1929 to 3·61 millions in 1933, and declined to 0·10 millions in 1937. Tonnage broken up increased from 0·17 millions in 1929 to 0·64 millions in 1933, since diminishing to 0·12 millions in 1937. But this did not enable the industry to weather the depression and the continued stagnation in foreign trade without Government assistance. The liner companies have not been helped much. The *Queen Mary* and her sister ship were financed by loans with Government guaranteed interest. The amalgamation of the Cunard and White Star Lines to reduce competition on the Atlantic routes was possibly a *quid pro quo*. The liner companies have in many cases strong financial resources, and are protected to some extent by the international conferences regulating fares and freight rates. Tramp shipping, however, was steadily losing ground, not only to foreign tramps but also to liners. The index of freight rates is given in Table 54. The increase in freight rates shows the effect partly of an increase in international trade and partly of the changes in organisation consequent on the Government's scheme for assistance.

By the British Shipping (Assistance) Act of 1935 a subsidy of up to £2,000,000 was to be given based on the index of freight rates, the amount to be reduced as the index approached the 1929 level. This Act was extended up to 1937. Before the war a proposal was before Parliament by the Government for giving a subsidy of £2·75 millions a year. Like the previous subsidy this is a maximum figure ; the proportion to be paid out is to be determined by the index of freight

rates at a higher level. Previously no subsidy was paid when the index reached 100—1929, but in 1939 Parliament agreed that it should be paid until the index reaches 105. Under the earlier Acts, loans were to be given up to £10,000,000 for building ships on condition that two tons were scrapped for each ton built. Actually about £3,500,000 was lent. In addition to a subsidy of half a million pounds for five years it was also agreed to make available a further £10,000,000 to be lent to shipowners at favourable rates of interest for building if the contracts are

TABLE 54

TRAMP SHIPPING FREIGHT RATES.
1913 = 100

(Compiled from the Chamber of Shipping Index.)

1929	106·3	1935	81·1
1931	85·0	1936	96·5
1933	77·5	1937	149·3
1934	80·6	1938	—

placed in Great Britain. Cargo liner companies are eligible for the aid to building. A defence fund also is to be set up to protect ships from subsidised competition. In return for this aid, the Government required tramp shipowners to organise in order to prevent the lowering of freight rates through competition. A Tramp Ship Administrative Committee was set up and minimum-rates schemes were introduced in the grain trades for the River Plate, Australia and St. Lawrence, amongst others. The Committee has been relatively successful in obtaining the support of foreign owners for these price-fixing arrangements.

Civil aviation is a speedy method of transport for long distances, but its use is limited by cost and its unsuitability for heavy freight. Passengers carried and ton-miles for United Kingdom companies are shown below :

TABLE 55

PASSENGERS AND TON MILEAGE OF UNITED KINGDOM CIVIL AVIATION.

(From the *Civil Aviation Statistical and Technical Review.*)

	Passengers Carried.	Ton Miles.	
		Freight.	Mail.
1920–24 . .	10,100	(Not available).	
1925–27 . .	15,550	153,000	
1928–32 . .	30,400	208,000	167,000
1933–37 . .	179,000	595,000	1,637,000

The most important freight is light-weight goods, such as furs and bullion, which show some saving on insurance to offset the high cost of transport. The above table does not include foreign lines operating between the Continent and this country. This foreign competition appears to be increasing slightly.

There are eighteen companies registered in this country, mostly operating internal services. Altogether they own about 170 'planes. Five companies between them own over 100 of these. Two companies are subsidised, to a considerable extent, to provide Empire services. In the year 1936–37 the subsidy was £291,000 from the British Treasury, and £650,000 for 1937–38.[15]

Government influence can be seen in the organisation of the companies in this country. Imperial Airways was a merger formed in 1924 under Government influence. British Airways Ltd., the other line subsidised, was formed out of Hillman Airways and Spartan Air Lines Ltd. It controlled directly a fleet of 15 'planes, and had financial links with companies controlling a further 30 odd, including Highland Airways Ltd. and Northern Airways Ltd. British Airways and Imperial Airways have now been amalgamated by Act of Parliament. It is, however, only the operating company, British Airways, that is being amalgamated ; the other lines with which it was associated, directly or through Whitehall Securities Ltd., will remain independent. Shareholders in Imperial Airways were offered 32s. 9d. per £1 share, and shareholders in British Airways will receive about 15s. 9d. for each £1 share. The prices of British Airways shares are not quoted, but Imperial Airways £1 shares ranged from 21s. to 27s. during the first half of 1938.

Heat is used in industry, directly in the industrial process or indirectly, through conversion into energy, and recently changes have taken place in both methods of application. Solid fuel is being replaced to some extent by substitutes, such as electricity or gas. This change has not gone very far, as the substitutes are more costly than coal. The cost per therm of potential heat is 1d. for coal at 26s. per ton, but 4d. for gas at 4d. per therm and 23d. for electricity at ·79d. per unit. Gas and electricity are more efficient, but not sufficiently so to counteract the difference in cost. In the provision of energy, however, electricity is replacing mechanical power, as the figures in Table 56 show.

These figures include all the Census of Production trades except electricity supply. Coal is the principal source of mechanical, as it is of electrical energy in this country. Oil- and petrol-driven internal combus-

TABLE 56

MECHANICAL AND ELECTRIC POWER.

	1924.	1930.
Mechanical Power . .	11,100·5 th. h.p.	11,045·8 th. h.p.
Electric Generators . .	2,529·2 th. k.w.	2,929·3 th. k.w.
Electric Motors . .	7,721·4 th. h.p.	10,575·3 th. h.p.

tion engines accounted for only 1·4 per cent. of the mechanical power in 1924 and 2·5 per cent. in 1930, and gas engines for only 4·8 per cent. in 1924 and 2·9 per cent. in 1930. The difference in the direct application of coal and in its application through electricity is important. Coal is expensive to transport, and the expense varies directly with quantity and distance. The main cost of transporting electricity is the construction and upkeep of high tension transmission lines, and the cost per unit varies inversely with the quantity transported. The effect on location of industry is important. Industries using electrical power can go much further from coal-fields than industries depending largely on solid fuel. Many of the newer industries require heat mainly in the form of power, while some of the older industries require it directly in the process of production. The newer industries are not, therefore, so closely linked with the coal industry.

Power requirements of the different industries and the proportion of requirements taken in the mechanical and electrical form vary enormously. In 1930 two groups, the iron and steel, and textile trades, accounted for 3,588·5 mechanical thousand horse-power out of the total of 5,481·8 for all factory trades, and these two, plus electricity supply, accounted for 12,240·0 thousand

mechanical horse-power out of the total of 17,570·9 for all trades. They do not account for such a high proportion of electrical power, except of course electricity supply, in the case of electrical generators. The following table shows the proportion of electrical power to total power in the different groups :

TABLE 57

PERCENTAGE OF ELECTRICAL POWER TO TOTAL POWER BY INDUSTRY 1924–1930.

(Compiled from *4th Census of Production*, 1930, Part V.)

	1924.		1930.	
Iron and Steel	46·2		54·9	
Engineering, etc.	90·5		95·6	
Non-ferrous Metals	80·6		88·6	
Textiles	26·4		38·4	
Leather, etc.	69·4		79·1	
Clothing, etc.	69·8		82·0	
Food, Drink and Tobacco	65·6		78·6	
Chemicals, etc.	63·1		75·8	
Paper, Printing, etc.	63·7		81·8	
Timber	53·0		74·0	
Clay and Building Materials	50·2		68·9	
All Factory Trades		*53·2*		*66·2*
Building and Contracting	53·1		59·2	
Mining	42·1		48·2	
Public Utilities	44·2		47·6	
Non-factory Trades		*42·9*		*48·5*
Miscellaneous	75·4		85·7	
All Trades		*49·7*		*60·6*

Comparable figures are not obtainable for agriculture, but both mechanical and electrical power is being increasingly substituted for animals. In 1925 in England and Wales there were 1,164,000 horses on farms, and in 1937 only 858,700 horses. The number of tractors is increasing rapidly, and with the completion of the grid system and gradual development of

rural electricity there should be a rapid increase in the use of electrical power for stationary motors.

The textile industries have shown an extraordinary increase in the use of electricity from 1924 to 1935. They started from a very low level (and the proportion of electrical power to mechanical is still below the average). The cotton industry, for example, is situated near to coal-fields and can obtain coal relatively cheaply, but the rise in the price of coal from an average of about 18s. a ton from 1930–35 to 24s. in 1938 has increased the cost of steam power, and obsolete steam engines frequently are being replaced by electric motors. This change is a process that will take time, as it still does not pay to scrap steam engines in good condition.

Fuel has seen comparatively little substitution except in the case of oil for coal in shipping and, to a small extent, gas and electricity for coal and coke in furnaces. The principal change has been economy in fuel consumption, and this is important in a number of industries. In 1913, for example, the output of gas per ton of coal was 13·14 cubic feet, and coke 9·44 cwt. To-day the corresponding figures are about 17 cubic feet of gas and 13·8 cwt. of coke. There has not only been a change from coal to oil in shipping, but improvements in design have reduced fuel requirements, and improvements in boiler design have increased the horse-power output per given consumption of fuel. The same process has been at work in electricity. In 1913, on the average 3·09 lb. of coal were required to produce a unit of electricity, but to-day only 1·38 lb. are necessary. This is to some extent the result of closing down inefficient generating stations and concentrating production on the larger ones, but it also reflects technical improvements. In 1913, 41·3 cwt. of coal equivalents were required to produce 1 ton of pig-iron, to-day the figure has fallen to 32·6 cwt. This is not the only economy in fuel in the iron and steel

industry. The growing integration of firms has resulted in the passing on of the half-finished material from one process to another before the heat is lost. It has also economised fuel by the use of by-product gases in the furnaces. These are only examples of a movement that is general. Their effects on costs, on the location of industry and on the situation in the industries supplying fuel and power, have been far-reaching. Coal, gas, electricity and petroleum are the main power-providing industries, and have all been affected in greater or lesser degree.

The structure of the coal industry has been treated elsewhere. Nearly one-third of the output of coal is used in industry, and almost 40 per cent. of this is used for power. The main effect of this change has been to accentuate the decline in the demand for coal and stimulate the new organisations discussed elsewhere. It is also possible that compulsory price-fixing, with the consequent rise in the price of coal, will hasten the substitution of alternative sources of heat and power.

The generation of electricity is dominated by the work of the Central Electricity Board. In addition to the grid system it has initiated a policy of standardisation which is nearly completed. To-day, 97·4 per cent. of the current supplied is A.C., and 93·2 per cent. has the same frequency.

On the supply side the organisation is very complicated. There are 619 separate undertakings of which over half are owned by local authorities, the rest by private companies, with a capital respectively of £159,000,000 (net indebtedness of local authorities) and £161,000,000. The size of undertakings is shown in Table 58.

In 1936–37 all the company undertakings sold over 37 per cent. of the total units sold, but nineteen of these accounted for 90 per cent. of the total number of units sold by companies. These concerns are all

TABLE 58

SIZE OF ELECTRICAL UNDERTAKINGS ACCORDING TO NUMBER OF UNITS SOLD.

Million Units.	Number of Undertakings.	Percentage of Undertakings.	Percentage of Sales.
Under 1. . . .	148	24·02	0·40
1– 10. . . .	238	38·64	5·50
10– 25. . . .	90	14·61	8·64
25– 50. . . .	50	8·12	10·33
Over 50. . . .	90	14·61	75·13

operating in large centres of population, and many of them have a number of subsidiaries. Holding companies are a common form of organisation and are almost universal in the small rural areas. One of the largest is Edmundson's with about forty-five subsidiaries selling over 800 million units a year. Many of the holding companies seem to be efficiently run, but a recent committee on electrical distribution pointed out a number of potential abuses mainly connected with questions of charges by the parent company for services rendered to the operating subsidiaries.

The published accounts of electrical undertakings show a wide variety of costs and charges, and there is undoubtedly scope for reform in amalgamating many of the small uneconomic units. At the moment this is hindered by the possibility of the local authorities exercising their powers of compulsory purchase in the future. The areas of local authorities, like political boundaries, have little in common with economic

factors ; and are not necessarily suitable areas for undertakings supplying electricity.

The gas industry is not a large supplier of heat and power to industry generally. It is estimated that only 10 to 20 per cent. of the output of gas is used for industrial purposes, though in certain areas, such as Sheffield, as much as 60 per cent. of the output may be so used. The greater part of this is used either for heating buildings or else in the processes of production. The amount used for power is very small.

There are 706 statutory undertakings in the gas industry with an output of 1,495 million therms, and 544 small non-statutory undertakings with an output of 56 million therms. The size of these undertakings is shown in the following table :

TABLE 59

SIZE OF UNDERTAKINGS IN THE GAS INDUSTRY ACCORDING TO OUTPUT.

(From *Political and Economic Planning Report on the Gas Industry.*)

Output in Million Therms.	Number of Undertakings.	Percentage of Total Output.
Below 1	526	11
1– 9·9	156	31·75
10– 99·9	23	40·25
Over 100	1	17

The majority of these units are efficient. It is estimated that an output of anything over one million thermal units can be produced nearly as cheaply as the largest output. The costs of transmitting gas over a long distance are very heavy, and there is probably economic

justification for the existence of even the smaller units of under one million therms in capacity. The South Yorkshire Gas Grid is successful, but only because it obtains by-product coke-oven gas, more cheaply than it can be manufactured, and there is therefore a saving to cover the cost of transmission.

Holding companies are a common method of organisation in this industry, but they do not produce a high proportion of the output, as their main centres of operation are in the scattered areas, where companies are small. The larger undertakings in the main centres of population are either owned by local authorities or, with a few exceptions, self-contained firms.

In addition to the provision of services both to industry and direct to the consumer, the transport and power industries are important markets for the products of the coal and iron and steel industries amongst others. The railways consume nearly 500,000 tons of steel products a year ; about 53 lb. of coal are used per engine mile, which gives a rough figure of 13½ million tons as the annual consumption of coal. The motor industry is a large consumer of iron and steel, taking approximately one million tons. The shipbuilding industry is directly dependent on merchant shipping for its prosperity, except, in peace time, for the uncertain orders for warships. This industry takes nearly 500,000 tons of iron and steel in a year, as well as a considerable quantity of coal for propulsion. Gas and electricity are similarly large markets for industrial products, especially coal, and in the case of electricity, machinery and cables.

NOTES

[1] *Political and Economic Planning*, "The Location of Industry," chap. iii., p. 55.

This report tends to minimise these two factors by adopting a rather different approach. The main factors treated are the accessibility to markets and to raw materials (in which transport plays an important part), labour supply and finance.

[2] Transport and power costs are only two amongst many elements in the final delivered costs to consuming centres. It is the object of the industrialists, in choosing sites, to minimise these costs in so far as they depend on location. But when any one or more of these costs is altering more rapidly than others, its influence is increased.

[3] Skill and existing services are more important in keeping location stable than in deciding the location of new industry.

[4] In coal, location is determined by natural resources, in iron and steel by accessibility to raw materials, but many of the lighter industries, *e.g.* cosmetics or paint, are more conveniently situated near markets.

[5] Cases of old-established industries moving their location also occur, *e.g.* paper-making.

[6] The rest of England includes East and West Midlands; South-East (except for Greater London); South-West; East Anglia; Cumberland and Westmorland. The latter is a district where production has declined.

[7] When direct loading from factories into rail trucks is not possible.

[8] At Garstang, for example, full facilities are available for unloading, grading and distributing timber direct to customers on importers' orders.

[9] "The Commissioners pointed out that one of the inevitable effects of the regulation and control of passenger transport by road must be the gradual establishment of controlled monopolies or quasi-monopolies in particular areas or towns." How successful the control has been is open to question. "Complaints are frequently received that when the services of small operators are taken over by the larger operators, the public find that the facilities they previously enjoyed have been considerably reduced. Whilst we do all we can to see that the public does not suffer by absorptions, cases do undoubtedly arise when, owing to the apathy of local authorities, who have a right to object, we agree to a reduction of services, not being aware of the force of the arguments against such reductions." *Reports of the Traffic Commissioners for the year* 1935–36, p. 47. A further example to show that the Commissioners

were aware of some of the problems involved is that one considered it necessary to devote nearly two pages to a defence of the system against criticism in *The Public Control of Road Passenger Transport*, by D. N. Chester.

[10] Estimated on figures given in reports for the Northern, North-Western, West-Midlands and Yorkshire areas.

[11] *Economic Journal*, December 1936, pp. 673–4.

[12] £15,000,000 in 1937.

[13] Production for war purposes (both naval and mercantile marine) has resuscitated the industry in Great Britain and France.

[14] In 1937, industrial production was over 60 per cent. more than in 1929, but exports were only 20 per cent. above 1929, and in 1938, fell to the 1929 level, while production increased. *Economist*, 15th July 1939.

[15] Not including grants from Dominions.

EPILOGUE

REARMAMENT AND WAR

THE increasing influence of the Government in industry, agriculture and finance has been none the less important because often exerted through public or semi-public bodies such as the Import Duties Advisory Committee or the Bank of England. This influence has, in its turn, made the inter-dependence of Government and the economic units more obvious and more complete. Any plea that governments should not 'interfere with business sounds hollow in the face of Government's financial assistance and legislation in the interest of particular industries and of industry generally. A dichotomy between the affairs of State and the affairs of business is no longer possible, indeed, is no longer credible.

We have seen that the commercial banks led by the Bank of England have taken a greater interest not only in the mechanism of industrial finance, but in policy. Of this new development, the Securities Management Trust and the Bankers' Industrial Development Corporation may be taken as symbolic. But despite the growth of new institutions and the adaptation of old methods of finance to new uses, such as the renewed use of the internal trade bill, gaps remain in the methods of financing both industry and agriculture and distribution. In particular, agriculture is inadequately served.

There are new powers in the City of which the Insurance Companies are the most important. But the

Building Societies were beginning to emerge as a new source of industrial capital. The war, which will mean the cessation of most house building, other than replacement, will probably result in the repaid mortgages being used to take up Government loans.

The development towards monopoly, combination and association and the application of a variety of methods to prevent competition, apparent even in the early days of the century, have now been so accelerated that organised interference with the free market is almost ubiquitous. These developments have not been confined to industrial production, and since the war have been carried a stage further. Parallel movements to that in production are notable also among the finance houses (though here some of the impetus came from the Bank of England), the banks and in commerce and distribution. Even agriculture, in recent years has, under the stimuli of tariffs, quotas and subsidies, developed a *penchant* for " compulsory co-operation." But there is no very marked development towards large-scale farming.

In industry the development of large-scale production units, encouraged by the demands for mass-produced articles and by the development of the necessary technical ability and the expectation of greater profits, has resulted not only in national but international organisations. These international businesses have not been broken down by national tariffs and quotas. In many instances, such as Ford works, the difficulty of overcoming the tariff has resulted in opening up of new works in this country. Moreover, horizontal combination has been insufficient to ensure control, and vertical integration of the process of production and distribution is a common factor in large and even relatively small business.

These changes have been concurrent in recent years with the decline in our overseas trade and the

building up of the home market under the protection of tariffs and quotas. Despite these curbs on international specialisation our national income has increased rapidly since the depression, and a larger proportion of it has been applied to producing those goods and services which increase the economic welfare of the population. Both this and the shift in the geographical centre of gravity of industry towards the Midlands and London will be effected by the war. The war will also necessitate a retrenchment in the standard of living of the mass of the people, and will revive those industries and districts which have suffered most severely from cyclical and, most particularly, from secular decline. A new, if spurious, prosperity will come to the north and north-west. The relatively prosperous Midlands and south, even if they do not suffer absolutely, will not be so relatively prosperous compared to the rest of the country.

But the fact that war will effect the industrial structure of the country by no means implies that the general trends which have been outlined will not continue. Some may be effected temporarily ; on the other hand, the war itself will accelerate the development of others. Before dealing in greater detail with " Rearmament and War," it may be useful, therefore, even under the charge of repetition, to emphasise some of the historical developments of recent years.

It is often stated that the depression of 1929–33 was the turning-point in the industrial history of this country. This view is, in our opinion, incorrect. The sources of the changes in industry described in this book can be traced back before 1914, and certainly were well developed by 1929. Before that year there had been a spate of commissions and legislation dealing with railways, coal, shipping, cotton, iron, steel, agriculture—and labour. A number of these com-

missions insisted on the necessity for organisation to replace individualism in industry—a curious inversion of the opinions expressed by similar committees after the Napoleonic wars. And although it is true that the growth of combination has been assisted by the general tariff introduced after the crisis and the change of Government in 1931, many of the associations and combines have histories which go back to the end of the nineteenth century, and there is no doubt that this type of organisation was increasing between 1919 and the depression.

Neither the depression nor the crisis was the sole cause of the tariff legislation, although they both undoubtedly facilitated its introduction. For decades previously this country had been slipping away from free trade. The Merchandise Marks Act, the McKenna Duties, the Safeguarding of Industries Act and the embargo on the import of certain commodities, such as ware potatoes from France and fresh pork from the Continent, these and other protective measures all preceded the introduction of the general tariff and quotas.[1] The tide in economic affairs carried with it the ideas and fact of regulation, just as in the early nineteenth century it swept away restrictions.

The development of social legislation which interfered with the unbridled pursuit of wealth has, as noted in Chapter I., a history going back in this country to the Factory Acts. On the other hand, assistance to industry by, for example, the remission of excise duties and by de-rating factory premises, and so aiding one part of the community at the expense of another in opposition to the tenets of laissez-faire, was merely a logical development from the earlier legislation which protected the weaker bargainers—labour—in their dealings with entrepreneurs. But with this type of legislation the consumer was no longer king.

Whereas in previous decades the restrictions on

competition had tended to be surreptitious to avoid offending public opinion, to-day the tendency is rather for competition to be covert to avoid trouble with other producers or distributors of the same commodity.

These changes have been discussed by economists over a very long period. Marshall, as we have seen,[2] was no fanatical free trader, and Sir William Ashley had preceded Mr. Keynes' advocacy of tariffs (though in favour of agriculture) by some thirty years. The relative decline in producers' goods industries and the shifting location of industry were being discussed by economists, such as Mr. Henry Clay,[3] long before the crisis.

The change in informed opinion and the actual developments themselves, of which we are seeing the results to-day, have then a considerable history. There was no true innovation because of the depression and the crisis. There was, however, a drastic change in emphasis. During the previous years the movement could correctly be described as a reaction against laissez-faire. After 1933, it is almost no exaggeration to say that there remained only the residue of a departed free trade and laissez-faire, some individualism and a covert competition within the industrial, agricultural and distributive structures.

Rearmament did not have an important stimulating effect on industry until the end of 1938. During 1939 the increased tempo and scope of rearmament was affecting peace-time production for civilian needs. Competition by the fighting services for raw materials and manufactured goods was increasing, and the Government loans were beginning to absorb much of the finance which otherwise would have found its way into industry. By September 1939 rearmament was creating a mild boom in certain industries such as iron and steel, and was of considerable assistance to others such as shipbuilding. Indeed, there was a

shortage of skilled labour in some branches of engineering,[4] and at times a shortage of material in others—for example, the motor industry.[5] Thus the changes in production and on the structure of industry necessary to meet the demands of rearmament during the period of near-war, were not altogether concealed by the re-employment of labour and plant. The choice between production for the prosecution of the war and production to provide ultimately a higher standard of living or even to maintain the present standard, had to be made. The first war budget, which closely followed the outbreak of war, left no doubt of the choice between more guns and more butter—it was guns. With that decision an important, if temporary, change in British industry began. Whereas the theoretical objective of democratic peace policy had always been the maximum production of goods and services to provide the highest attainable standard of living, in war the aim is the maximum production of goods and services unrelated to the standard of living and conditioned by the need of " totalitarian " warfare. The consumer, as a civilian, takes second place. Temporarily, at any rate, every other consideration yields priority to the production of goods and services for the prosecution of the war. These goods and services do not, except in so far as they facilitate technical improvements, contribute anything to future economic welfare. On the contrary, their production from labour and plant which have been diverted from production for ultimate civilian use adversely affects future economic welfare.

The fact that war is creating a new bias in industrial production and distribution, and is substantially directed and controlled by the needs of Government, requires further consideration. The extent of this new Government direction can be measured roughly by the war budgets, actual and potential, relative to the gross national income. The total gross national income

(including income from overseas) for the year ending March 1939, is estimated to be £5,700,000,000.[6] Of this aggregate £420,000,000 were for replacements, wastage and depreciation of assets so as to maintain capital intact, £250,000,000 were used for increasing capital equipment and £1,300,000,000 were at the disposal of central and local governments ; this included " transfer " incomes and £50,000,000 (net) borrowed from the public. At the present time (December 1939) the total national expenditure by the central government is estimated to be at the rate of £2,500,000,000 per annum, and estimates suggest that this will increase to £3,500,000,000 some time in 1940. There is no doubt that to make this vastly increased budgetary expenditure available, considerable adjustments are necessary.

The methods available depend upon three factors ; " the *liquidation* of existing assets, the *expansion* of the output and the *diversion* of output." [7] The liquidation of assets includes the use of our holdings abroad and the withholding of capital for replacement purposes and for increasing capital equipment for all industries not required for the prosecution of the war. The expansion of output (apart from inventions) depends upon the re-absorption of capital and labour, the increased intensity and hours of work and also upon the additional contribution of new entrants into industry, particularly women. The diversion of output depends upon the extent to which industrial production and distribution and consumer services can be diverted from peace-time channels to assist war production.

It is not suggested that all these methods will be used or, at any rate, that they will be used to the fullest extent. The permanent injury to the country from the total loss of our holding abroad and the non-replacement of capital would be too serious for any sane government to pursue to the full. But we may, in

order to intensify production, make some sacrifices along those lines. The main source of increased war production, it is to be expected, will come from intensification of production and diversion from peace-time production.

The methods by which Government control is exercised and by which Government expenditure is financed are affecting the structure of industry. Government has, in the main, used the various forms of associations and controls built up before the war to develop its war-time economy. These organisations, in general, pursued a policy which tended to keep profit-making in a particular industry the sole prerogative of those who had been in the industry at a given past period. The results in many instances were very like hardening of arteries. Restrictive measures now go by the board and industries are required to find new vigour and produce to a maximum if the raw material and labour can be obtained. Although, therefore, industry may be more severely controlled than at any previous period, there is a new atmosphere in which expansion replaces restriction.

With this in mind as the keynote of production for war, it is well worth while examining some of the controls which exist in the various Ministries, and by whose orders so many industries operate.

Beginning with the Ministry of Agriculture and Fisheries, we find that a decision has been taken to purchase the whole of the home-grown staple crops from the harvest of 1940 at prices to be announced later.[8] There is no doubt that these prices will be such as to ensure reasonable profit for efficient production—possibly for production that in peace time would be sub-marginal. Thus at one stroke the farmer is changed from a business man, taking the risks of the market, to little more than a technical expert and administrator, producing the maximum quantities of

given crops with the assurance of a margin of profit. A similar policy of guaranteed prices—presumably based upon the cost of feeding-stuffs—is to be pursued for livestock. But such a policy is no innovation. It is in line with the peace-time policy for milk, pigs, wheat, barley and sugar beet ; though it is true that a number of these were developed during a period of near-war.

The Hops and Milk Marketing Boards and the administrative machinery of the Potato, Pigs, Bacon and Bacon Development Boards (which are being put into " cold store " during the war) are being utilised to carry out Government policy. Whereas, however, the function of the Pigs and Bacon Marketing Boards has been to expand the home industry, under war-time conditions of shortage of imported feeding-stuffs, a reduction in the pig population seems inevitable. On the other hand, on account of the heavy yield of potatoes per acre, and the numerous by-products which can be manufactured from potatoes, and the uses to which it can be put in feeding stock and, if necessary, for bread-making, an expansion of the acreage is most likely.

The continued provision of subsidies for ploughing up land and for the purchase of lime and basic slag in addition to Government purchases of tractors for the use of farmers, imply a war-time continuation of the policy of rehabilitating agriculture. While much of the recent assistance was intended as an insurance against war needs, the effect of these measures and the further insurance in agriculture which is now being offered must effect long-term agricultural developments. Meantime, although agriculture is increasingly dependent on Government assistance, in return, farmers are required to become less dependent upon foreign agriculture.

The extensive building of aerodromes and houses has restricted the potential expansion of agriculture,

but, mainly because of increasing efficiency, agricultural production has increased by some 20 per cent. since the last war. But a brief review of the agricultural situation in 1914, 1918 and 1938 and a brief analysis of the quantities of those foods for which we are mainly dependent upon overseas sources will assist us to visualise the war-time problem facing not only agriculture, but the shipping and export trade—the export trade to pay for part of the imports, and shipping to carry not only our own requirements but also as a source of income from which we pay for imports.

As for most industries some expansion in production will be required from agriculture. But the table opposite shows that there has been a decline of 2,600,000 acres of cultivated land since 1914. Arable cultivation has fallen by 17 per cent. since 1914, and there have been decreases in the acreages under oats, barley, roots and bare fallow. To offset these decreases, apart from the increased efficiency of production, there is only the higher acreages under wheat and the new sugar-beet industry. The most serious feature, from the viewpoint of production in time of war, is "the complete disappearance in many districts of the implements for, and the traditions of, arable cultivation." [9]

While the arable acreage has declined, there has been an expansion—deliberately encouraged—of the livestock population. This fact accentuates our dependence on imported feeding-stuffs. The cattle population has increased by 900,000 since 1914, though, on account of the importance of fresh milk supplies, this is an asset rather than a liability. The sheep population is also larger than in 1914, but sheep are useful converters of grass to meat. The expansion of the pig population has, however, been dependent upon freely imported supplies of feeding-stuffs, and the pig is an expensive converter requiring approximately five pounds of feeding-stuffs to produce one pound of pig

meat. The decline in the number of horses is to be reckoned on the assets side of the balance-sheet—provided we can get supplies of fuel—and releases a large number of acres—estimated at 750,000, for the production of cereals and grass to be converted into human food. An additional asset is the vastly increased

TABLE 60

THE AGRICULTURAL SITUATION IN GREAT BRITAIN.

(Compiled from Agricultural Statistics.)

	1914.	1918.	1938.
A. CROPS :	*Millions* Acres	*Millions* Acres	*Millions* Acres
Total Cultivated	31·90	31·75	29·26
(*a*) Total Arable	14·29	15·85	11·86
(*b*) Of which—			
Temporary Grass	3·86	3·45	3·35
Wheat	1·87	2·64	1·93
Oats and Barley	4·55	5·68	3·08
Potatoes	0·61	0·80	0·61
Roots	1·91	1·71	0·97
Sugar Beet	—	—	0·34
B. LIVESTOCK	Head	Head	Head
Cattle	7·09	7·41	7·97
Sheep	24·29	23·35	25·41
Pigs	2·63	1·83	3·90
Horses (on Agricultural Holdings)	1·30	1·34	0·99

number of tractors, from almost nil in 1914 to 46,420 in 1938, to which should be added an unknown number purchased by the Government. Lastly, the increase in the home production of fruit and vegetables assists us to be independent of overseas supplies. Nevertheless, apart from potatoes, liquid milk and, to a less extent, fish, we are still mainly dependent on imports, though our position appears to somewhat better compared with the last war.

The following table indicates the demands made upon the navy and the merchant service and the export trade to ensure the continuance of sufficient supplies for the fighting services and the civilian population.

TABLE 61

ESTIMATES OF TOTAL ANNUAL CONSUMPTION AND OF THE EXTENT OF OUR DEPENDENCE UPON IMPORTED FOODS (ANIMAL AND HUMAN).

(Compiled from (i) *Economist*, 10th June 1939, p. 589.
(ii) J. Boyd Orr, *Food, Health and Income*, App. iii.)

	Total Consumption.	Proportion of Total Consumption Imported.
FOODS:	'000 tons.	Percentage.
Cereals *	4,418	87
Meat	3,086	50
Condensed Milk, etc.	259	35
Cheese	199	69
Fats †	943	89
Eggs in Shell (millions)	7,182	35
Fruit	2,380 ‡	75
Sugar—Refined	1,935	74
Tea, Coffee and Cocoa	283	100
FEEDING-STUFFS: §		
Cereals	9,796	67
Oil Cakes, etc.	1,848	96

* In terms of flour. † Butter, margarine and lard.
‡ Including an allowance for allotments and gardens.
§ Excluding feeding-stuffs entirely home-grown, such as hay, roots, etc.

It can be seen that, apart from the numerous other goods not mentioned, carrying space is required for 20,000,000 tons of food per annum.

Two points emerge—that the arable acreage cannot possibly be increased sufficiently to provide nearly all our requirements, and that important decisions are

required as to which foods home agriculture should increase. These decisions must depend not simply upon the ability of home agriculture to produce a particular commodity, but upon the value of the commodity as a food and the dependence upon overseas farmers in producing it. These decisions are, of course, quite apart from the practical difficulties which beset the farmer when he is required to make alterations in his cultivation.

The problems of war-time agriculture and, in particular, the problem of whether to maintain, increase or decrease the livestock population are linked closely with the problems which are among those handled by the Ministry of Food and the Ministry of Shipping. In all of them, however, is to be found the one problem: decisions as to priorities of imports, of shipping space, of foreign exchange and so on.

The Ministry of Food is responsible for imported foods and for the distribution and the rationing of both imported and home-grown foods. By December 1939 controls over butter, condensed milk, imported eggs, cereals, cereal products, meat and livestock, bacon and ham, sugar, oils, fats and other commodities, such as tea and dried fruits, had been established. The principle of control, as at the Ministry of Supply, appears to be entrepreneur self-government in industry. Trade directors have been appointed for each control and to assist in the operations of controls generally. The trade directors usually were connected, before the war, with the commodity they now assist to control. This method of controlling industries is a continuation of the peace-time policy of establishing marketing boards, the members of which were, in the main, farmers, and particularly associated with the commodity controlled by the Board of which they were members. Indeed, the setting up of organisations like the Meat Importers' National (Defence) Associa-

tion Ltd., the Bacon Importers' National (Defence) Association Ltd. and the National Association of the United Kingdom Oil and Oil Seed Crushers is a logical conclusion to that policy. Importers are now combined in close corporations, the licence to enter the trade being dependent upon the handling of imports before the war.

The rationing of butter, bacon and petrol has necessitated schemes of production and importation, and distribution controlled from first to last by Government-approved schemes. For example, in the home-bacon industry the price and quantity of feeding-stuffs, the selling price of the pigs, the allocation of pigs to factories and the distribution of imported pork for curing in factories, the price of the bacon to the wholesaler and the margins of profit permitted the latter and the retailer are all determined by the " Minister," on the advice of his Trade Directors and with the approval of the Treasury. The control of home-produced bacon is complete ; so, too, with imported bacon.

Although the number of commodities actually rationed are very few, the method of purchase and the distribution of the other commodities through organisations approved by the Government is not materially different. Elasticity in production and distribution is sacrificed for the more important control to enable Government to purchase more cheaply than the individual, and in order to secure priority of use that will best suit its war aims, and to secure equity in the handling of the commodity between those engaged in the trade before the war.

The Ministry of Supply has, so far, two main sets of functions : first, to expand munitions output, to run the ordnance factories, to place contracts and to supervise contractors, to survey the engineering resources of the country and to find the best methods of

encouraging and, if necessary, compelling industrialists to give priority to Government orders. Second, to control the supply and allocation of raw materials. The Ministry has also the power to insist on priority for Government work on behalf of all Departments. Thus the Ministry of Supply is the hub of one of the most important functions of war-time supply departments—the allocation of resources.

There is little that can be usefully written about the first of these sets of functions at this stage. Of the second, it is obviously necessary to have a system of priorities and to ensure that the requirements of the armed forces are satisfied before any luxury or semi-luxury demands are met. Controls, as in the Ministry of Food, have been established for the supply and allocation of a wide range of commodities, including iron, steel, non-ferrous metals, aluminium, hemp, jute, flax, silk, rayon, wool, timber, sulphates and other fertilisers.

These Controls are the mechanism used for fixing prices,[10] while the inter-departmental committees of the Ministries (of Food and of Supply) are responsible for authorising, subject to Treasury agreement, the importation of these commodities.

The Ministry was established with comprehensive powers which include restrictive functions, so that the Ministry may curtail the production of non-essential industries. It is thus partly through the Ministry of Supply that the *diversion* of industry will occur. (The other cause of diversion will, of course, be financial—the curtailing of purchasing power.) The Ministry has rapidly become the most comprehensive trading organisation in the world.

In the main, as at the Ministry of Food, the Controllers were in business similar to, or the same as, that for which they were appointed. Thus the Controller of Aluminium was previously a Director of the British

Aluminium Company Ltd. The Controller of Iron and Steel was Chairman of the British Iron and Steel Federation. The Controller of Oils and Fats was a Director of Lever Brothers and of Unilever, and the Controller of Sulphuric Acid and Fertilisers was a Director of Imperial Chemical Industries. The effect appears to be that, for example, the British Iron and Steel Federation has become the Iron and Steel Control, and the leaders of the timber trade have become the Timber Control.[11] This imputes nothing against the personnel of the Controls, but merely points to the fact that the peace-time organisations built up for the protections of the interests of the industries have been embodied in the mechanism of the war economy. Thus, two facts become apparent: that each controlled industry has become a closely-knit cartel for buying, producing and selling. The individual entrepreneurs retain little independence beyond the rights of ownership. Like the farmers they have become administrators, drawing payment in the form of profit instead of salaries; though the profits are agreed by Government after consultation with the leaders of the industry and subject, it is understood, to cost accounting inquiries.

Some measure of operations of the Ministry of Supply is conveyed by the table opposite, which sets out the quantities of some of the most important commodities imported in 1938.[12] This should be supplemented by the value of total imports in the same year.[13]

The Ministry of Shipping also has a dual task; to provide sea-going transport for supplies and personnel of the fighting forces, and to marshal the commercial shipping upon which Great Britain depends to carry our imports and exports and also to pay, as carrier for other countries, for part of the imports.

The actual stock[14] of United Kingdom steam and motor tonnage was 6,722 vessels with a total gross tonnage of 17,891,000 in 1939. This is a decrease of

TABLE 62

IMPORTS INTO THE UNITED KINGDOM OF CERTAIN IMPORTANT RAW MATERIALS IN 1938.

(Compiled from Trade and Navigation Accounts.)

COMMODITY.	UNIT.	QUANTITY.
1. Petroleum : *a* Crude	Thousand gallons	567,909
Refined	Thousand gallons	2,640,113
2. Iron Ore : *b* Manganiferous and other	Tons	5,167,033
3. Non-ferrous Metals : Bauxite *c*	Tons	248,930
Copper Ore *b*	Tons	31,209
4. Raw Cotton (except Linters) *d*	Centals of 100 lb.	13,072,240
5. Raw Wool *e*	Thousand lb.	882,229
6. Raw Rubber (including Crepe and Latex) *f*	Centals of 100 lb.	3,769,525

The main sources of the above supplies in order of importance are :

a Venezuela, Dutch West Indies, U.S.A., Iran, British West Indies.

b Algeria, U.S.S.R., Spain.

c France (207,944 tons) ; Greece and British Guiana.

d U.S.A., Egypt, Brazil, Anglo-Egyptian Sudan.

e Australia, South Africa, New Zealand.

f Straits Settlements, Dutch East Indies.

b 1936 : Canada, Norway, Portugal, Spain.

1,865 vessels but, owing to the increase in the average size of vessels, only 1,001,000 tons gross less than in 1914. Fortunately the decline in United Kingdom tonnage is more than offset by the increase of 1,479,000 tons of Dominion shipping since 1914, though the increase in the number of their vessels (719) does not compensate for the decreased number of English vessels.[15] The changes in the merchant fleet between 1913 and 1938 is indicated in Table 63.

The two factors that the table overleaf does not indicate are the increase in speed and efficiency of present shipping compared with that of 1914. Though it is easy to see from the table that a vessel sunk is likely to be a greater loss of tonnage than in 1914.

The Ministry of Transport has been made responsible for the organisation of road and rail transport. Road goods vehicles have been grouped and co-ordinated, and the railways placed under the direct control of the Minister of Transport working through a Railway Executive Committee.

Coal, which is still our main source of power, is being produced under a comprehensive plan drawn up

TABLE 63

DECLINE IN THE NUMBER AND GROSS TONNAGE OF THE BRITISH MERCHANT SERVICE BETWEEN 1913 AND 1938.

(Compiled from the *Economist*, 16th September 1939.)

	Number.		Gross Tonnage.	
	1913.	1938.	1913.	1938.
Vessels between 1,000 and 4,000 tons gross (excluding Tankers) .	2,706	1,006	6,908,000	2,154,000
Vessels exceeding 4,000 tons gross .	1,598	1,602	9,511,000	11,289,000
Total, all sea-going Vessels . .	8,587	6,722	18,892,000	17,891,000

by the Mines' Department and includes arrangements for its distribution and sale. Provisions for the rationing of gas and electricity have been made and the imports of the other vital source of power, oil, has been put under a Control. The rationing of petrol and its effect on the manufacture and licensing of private cars is too well known to need further comment than that it is estimated that there was a decline of 75 per cent. on new car registrations this January (1940) compared with January 1939.

Sufficient has been written to indicate the vast extent of Government schemes which are in operation in industrial production, agriculture, distribution and the import and export trades. Their comprehensive-

ness has modified the structure of British industry and it is perhaps only necessary to add, before discussing the Ministry of Economic Warfare, something about the effects on particular industries and upon the location of industries.

We have seen that, to a considerable extent, Government control in war-time is but an extension of a policy pursued in recent years. Further, that direct control over industry is only insisted upon where it is not feasible to allow industrialists to organise their own arrangements for war-time needs. This is not possible, for example, in either the import trade, where priorities in shipping space and demands on foreign valuta have to be decided, or in the production of commodities where the demands for the armed forces may conflict with civilian needs. Thus certain industries have been more directly affected by the war than others. But, while during the period of rearmament it was possible to specify with some exactitude those industries which were mainly benefiting (*e.g.* steel and shipping), with the outbreak of war and the spurt in production which, it may be assumed, followed, firms in industries as far apart as the musical instrument makers (which have switched over to subsidiary armament production) and the manufacturers of guns not only increased their output, but in the case of the former changed the character of the output. Quite apart, therefore, from any problem of indirect employment, it becomes increasingly difficult to distinguish between armament and non-armament manufacturers. When to this is added the fact that the demands for the armed forces include almost every category of production, the problem becomes insoluble. The best that can be said, without a very detailed analysis, is that certain categories of industries benefit most directly, while others are adversely effected. The former are those industries which manufacture fighting materials,

shipping, textiles, army clothing and supply food and, of course, one must include the farmer. Losses will fall on the distributive services, hotels and the luxury and semi-luxury trades, the provisioning of which require materials or plant which could be diverted to war needs.

The fact that the " heavy " industries centred in the north and the north-west were the first to benefit from rearmament, and the fact that this type of production must be maximised has, and will, continue to result in these areas having a relatively high production compared to the pre-war period and relative to other areas. In addition, some of the most important new armament works have been developed in the west and north, and the importance of shipping in war-time will bring a renewed vigour to the western ports and shipyards. These economic factors appear to be supplemented by strategic reasons. The western ports are probably freer from the dangers of enemy attack, and shipping entering those ports freer from submarine warfare. Finally, the Midlands, but more particularly the south-east, are the areas in which those industries are centred from which some diversion of production is to be expected. Besides, the distributive trades and the hotel business of London will probably suffer, with the net result that the former depressed and " special " areas will be relatively prosperous compared with the south. But such prosperity will be both temporary and spurious if, after the war, we do not retain a higher proportion of the world trade or, much the more preferable, unless these areas take part in a renewed expansion and freedom of world trade.

It is the task of the Ministry of Economic Warfare to co-operate with the Admiralty in carrying out the blockade of Germany. This involves not only the actual interception of cargoes destined for Germany but a widespread organisation to ascertain the real destina-

tion of goods apparently bound for adjacent neutrals. It requires, too, a " wide tracery of agreements, treaties, assurances and guarantees " [16] with the neutrals to ensure that while they obtain what they need for themselves from overseas, they have no surplus of such supplies to send to Germany. A further method and one which assumes greater importance under present conditions of strategy is the pre-emptive purchase of goods Germany herself requires from countries on the mainland. This is coupled with an export policy designed to drive Germany out of markets available to her, to force the terms of trade against her and to deprive her of essential foreign exchange. The stopping of Germany's overseas exports under the two-way blockade also provides occasion and opportunity for our export trade. Thus, economic warfare is intimately bound up with our export trade and the Ministry of Economic Warfare merges with, if it does not overlap, the trade promotion function of the Board of Trade (and the Department of Overseas Trade) and the priority determining function of the Ministry of Supply. The necessity to export, not only for reasons of economic warfare, but because they are the principal means of paying for imports, needs no emphasis. But if the drive for export trade is successful—and to be so a more unified direction of the national economic effort may well be necessary—it may have effects lasting after the war. Thus exports, viewed as a war industry, will be one of the few " that will not have to beat (its) sword into ploughshares at terrific social cost when the war is over." [17]

Many imports into this country have been requisitioned on arrival, and the Government has become, often through the " normal trade channels," acting as its agents the sole purchaser, in the country of origin. This centralisation is supplemented by arrangements for purchases on behalf of the Allies as one buying unit.

The establishment of the Anglo-French Co-ordinating Committee and the Permanent Anglo-French Executive Committees for food, textiles, oil, aviation, etc.,[18] and the agreement by which neither France nor the United Kingdom will increase their tariffs against the other, provide an indication of the development of an economic unity between the two countries for the purpose of prosecuting the war most efficiently.

The change from purchase by individual importers to Government purchase has already been extensive and, of course, must expand considerably. Apart from aeroplane purchases in the United States the Government has agreed to purchase the entire export of Australian and New Zealand wool, both during the war and for one year after. Similar arrangements have been made for the purchase of part of the total export of South African wool, and for the purchase of the entire exports of Australian and New Zealand pork and the whole of the British West African cocoa crop.

The extensive purchases abroad, the new and increased demands made upon home industry and the use of imports and exports as economic weapons have necessitated control over foreign assets, foreign exchange and the capital market in this country. The power to control is given by, in particular, the Defence (Finance) Regulation Order of the 23rd November 1939.

The Treasury now directly controls the monetary policy of the country through a Treasury Committee on which the Bank of England is represented. It is the Treasury which decides issues and the Bank of England which provides the mechanism through which the Treasury operates. The change may be more of form than of fact, since the Treasury has for many years treated the Bank of England as the operator of Government policy, but a symbol of the transition of power is " found in concentration of the whole gold reserve into the hidden resources of the Exchange Equalisation

Fund." [19] The Treasury is the directive force in all the financial controls.

The necessity of controlling all foreign assets held by residents in this country to use, if necessary, to purchase imports ; the development of the export trade to obtain foreign valuta, also to purchase imports, the control of the exchange rates and the arrangements for priorities in the use of foreign exchange all arise, as we have seen, from our great dependence on imports and the need to conserve our financial and economic power. But there are additional factors. Not only is foreign trade no longer a matter of competition between individuals or industries, but questions of priority in allotting shipping space and foreign exchange must be decided. Further, the individual has no control over exchange rates and, most important, while he has to look to profits as the objective, Government alone can afford to take losses which will assist the prosecution of the war.

By the Defence (Finance) Regulations every holding of gold and specified foreign currency assets held by residents in this country has to be offered through the Bank of England to the Government. Payment is made in sterling at the prevailing rates. There are restrictions on free dealing in foreign securities, and there are powers for the eventual acquisition by the Treasury, and regulations have also been designed to prevent the export of domestic capital.

The control of the foreign exchange markets has been favourable to the commercial banks, because, with their extensively spread branches, they have been chosen to act as authorised dealers in the foreign exchange business, and thus act as intermediaries between the public and the Bank of England. The foreign exchange business of the merchant banks " is gradually but inexorably being diverted to the clearing banks as a direct result of the foreign exchange control regula-

tions." [20] Bullion arbitrage has already disappeared and security arbitrage, which provided an important source of income of the merchant bankers, must eventually disappear. The discount market, on the other hand, should do well out of the increase in the floating debt and the profitable jobbing provided by Government loan operations. But the virtual exclusive concern with "homogeneous government paper must sooner or later influence both the personnel and the structure of the discount market." [21] It is likely to make for increased amalgamations.

Provision has also been made for the control of the capital market. Issues will presumably be permitted only if they do not curtail the demand for Government loan or if they are necessary to expand war production. Further, with an increasing supply of Government securities the clearing banks will have to reduce their accommodation to industry. Thus industry will be forced to rely even more than in the past upon their own resources both for long- and short-term loans. This is perhaps less serious for large enterprises than small, since, while the financial direction of industry remains unchanged, the concentration of industry and the practice of ploughing back profits had already enabled large businesses to achieve a certain independence of outside finance. Small and medium-sized businesses, however, will find the supply of capital more difficult to obtain, though perhaps the general buoyancy of business will enable them to rely more upon their own resources for capital expansion than in the past.

One of the more obvious factors in employment during a war is the increased influx of women into industry. It has been estimated,[22] on the assumption of an armed force of 3,800,000 men and the increased output of industry, that there will be an influx of over 4,000,000 women, bringing the total of "occupied"

females to nearly 10,500,000. Certainly this is our most important labour reserve and will lead to a more considerable dilution of labour than occurred in the last war.

Despite the increased employment of labour, both men and women, and an increased intensity of work and an increase in the hours of labour, it is to be expected that the withdrawal of men for the armed services and the vastly increased demands made upon industry will lead to keen competition among employers. There is a provision to meet this. By the Control of Employment Act, 1939, various controls are provided so as to avoid any competitive scramble for labour, *i.e.* the Government may operate a system of priorities. The powers are extensive. The Minister of Labour may issue orders to prevent an employer advertising for labour or that he " shall not engage or re-engage any employee without the Minister's consent." [23]

Part of the scramble for labour will be a result of the diversion of production. According to Makower and Robinson, the industries which will require an increased labour supply are, in order of importance, metals, Government services, professions, banking and finance, commerce, chemical industry, transport, and municipal gas, water and other supply services. On the other hand, the industries in which employment is expected to contract (apart from a miscellaneous group) are, in order of importance of decline, building, mining, local government, paper, printing and textiles, hotels, theatres, food, drink and tobacco trades.

The relative importance of these changes are shown in Table 64.

The net result of expansions and contractions in these industries alone is expected to increase the total employment by 1,000,000 workers. The greatest changes are in the metal industries with an expansion of over 1,600,000, and the miscellaneous industries

TABLE 64

ESTIMATE OF PROPORTIONATE INCREASES AND DECREASES OF EMPLOYMENT DURING THE WAR COMPARED WITH 1938.

(Compiled from Makower and Robinson, "Labour Potential in War Time," Table I., *Economic Journal*, December 1939, p. 659.)*

INDUSTRY.	Increase Per Cent.	INDUSTRY.	Decrease Per Cent.
Government Services	151	Hotels, Theatres, etc.	5
Banking and Finance	139	Other Manufacturing Industries	5
Metal	57	Food, Drink and Tobacco	6
Chemicals	49	Textiles	10
Professions	47	Clothing	10
Municipal Gas, Water, etc.	11	Local Government	10
Commerce	6	Mining	12
Transport	4	Wood	12
		Paper and Printing	21
		Building	42
		Miscellaneous Industries	64
ABSOLUTE INCREASE	3,665,000	ABSOLUTE DECREASE	2,549,000

* The table by Makower and Robinson includes agriculture as industry in which employment will decline, but we do not agree that there will be any significant decline.

with a decrease in employment of over 1,000,000. The main changes, according to the size of the industries, is easily seen from the table. Building, as is to be expected unless air-raids necessitate huge war-time building schemes, shows the largest relative and absolute decline of any industry. Mining also shows declines of very considerable size. But all these statistics must be accepted as indications. Their main use is to suggest the probable changes in the employment of labour and of particular industries as contributors to the war economy and national welfare. They also afford some corroboration of what has been written about the changing location of industry due to the war.

Speculation on the effect of the war on the structure of industry may be unwise. Prophecy would be stupid. It may suffice, therefore, to point out once again that

the present position has not arisen *in vacuo*. Historical tendencies have an impetus which inevitably carries them into the future. And who can say whether it will ever be possible to strike a true balance between laissez-faire and industrial regimentation? Yet one thing is certain. We are in danger of suffering from a world which is neither laissez-faire nor a planned economy; in which there is a residue of laissez-faire and control without a unifying conception. We see the death of the old world and fear the birth of the new.

NOTES

[1] See Fuchs, *Trade Policy in Great Britain*, 1905, especially p. 104 et seq.

[2] Chap. i., pp. 6–7.

[3] See *The Post-War Unemployment Problem*.

[4] Allen and Thomas, "Supply of Engineering Labour under Boom Conditions." *Economic Journal*, June 1939.

[5] Difficulties in obtaining deliveries of steel have been experienced by car manufacturers, and in the coal industry, boom conditions led to the suspension of the trade share.

[6] See Keynes, J. M., "The Income and Fiscal Potential of Great Britain." *Economic Journal*, December 1939, p. 626.

[7] Keynes, J. M., *ibid.*

[8] *Economist*, 14th October 1939, p. 64.

[9] *Economist*, *ibid.*

[10] Subject to Treasury agreement.

[11] The extent of the control exercised by the Board of Trade under its system of export licenses is conveyed by the value of exports and the quantities handled in any recent year. See above chap. vi. Table 35, p. 153.

[12] See above chap. vi. Tables 33 and 35, pp. 151 and 153.

[13] See *Economist*, 16th September 1939, pp. 527–8 and chap. vi. above.

[14] With the many arrangements to co-ordinate British and French economies, we probably should take into account the French merchant fleet. But this must be brought into an account of the economic strength of the Allies, not in a book on British industries.

[15] An important factor in sea transport is, of course, our capacity

to build new vessels. While the capacity of the yards is not available, some indication of the scope necessary to bring our production up to that of 1914 is given in the fact that the merchant tonnage launched in 1938 was only 1,030,000 gross tons compared with 1,932,000 gross tons in 1913.

[16] *Economist*, 14th October 1939, p. 41.

[17] *Economist*, 21st October 1939, p. 79.

[18] With six sub-committees.

[19] *Economist, Banking Supplement*, 4th November 1939, p. 4.

[20] *Economist*, 4th November 1939, p. 5. The impact of the war is considered likely to make for amalgamations.

[21] *Economist*, 4th November, pp. 4–5.

[22] See Makower and Robinson, " Labour Potential in War Time," *Economic Journal*, December 1939.

[23] Robinson, A., " The Problems of Wage Policy in War Time, pp. 654–5, *Economic Journal*, December 1939.

APPENDIX I

TARIFFS, PREFERENCES AND TRADE AGREEMENTS

THE change in policy which swept away the free trade in this country has had important repercussions on the structure of British industry. This is obvious and implicit in all that has been written in the foregoing chapters. This appendix is merely intended to indicate the extent of the change that policy has brought about by a narrow consideration of the most important of the tariffs, quota regulations and trade agreements.

The main characteristic of pre-war commercial policy in this country was the freedom of British markets for the competition of other countries' traders, and the securing of unconditional most-favoured-nation treatment for the exports of this country abroad.[1]

The war of 1914 brought about several changes, but we remained substantially a free-trade country until 1931. In 1915 the McKenna duties imposed a 33⅓ per cent. *ad valorem* duty on a number of products (private cars, clocks, watches, etc.), while immediately after the war the principle of imperial preference was applied by granting rebates of one-sixth the existing revenue duties on imports from Empire countries. In addition, there was the Dyestuffs (Import Regulation) Act, passed with the object of fostering the dyestuff industry in this country.

In 1921 the Safeguarding of Industries Act was passed, which provided for 33⅓ per cent. *ad valorem* duties for industries considered necessary to national defence and industrial security, though any British industry could apply for the same safeguards. It is estimated that until the depression the goods so assisted amounted to only 2 to 3 per cent. of imports.[2] Further, there

were revenue duties placed on artificial silk, petrol and sugar.

The protection of British industries really became an important factor with the Abnormal Importations (Customs Duties) Act, November 1931, which was replaced in February 1932 by the Import Duties Act. By the former a maximum duty of 100 per cent. could be imposed on a large number of wholly or mainly manufactured goods, though in practice they were imposed at a uniform rate of 50 per cent. *ad valorem*. By the latter Act a basic rate of 10 per cent. *ad valorem* was adopted as the duty on imports of manufactured goods, and a basis for Imperial Preference provided.

The higher McKenna duties were, however, maintained, and higher duties than 10 per cent. could be imposed on the recommendation of the Import Duties Advisory Committee, though a number of goods, chiefly food-stuffs and raw materials, were exempted from these duties.

The Ottawa Agreement followed, since then about 25 per cent. of British imports have been duty-free, while about 50 per cent. pay duties between 10 and 20 per cent. About 8 per cent. are subject to new duties over 20 per cent., and the remainder to the old McKenna and Safeguarding Duties,[3] in addition, some commodities although on the free list are subject to other regulations, *e.g.* as to quantity which may be imported. Agriculture protection was also applied during 1932, but the Ottawa Agreement exempted Dominions. In addition, some agricultural products received the absolute protection from foreign competition of quantitative regulation, *i.e.* the absolute limitation on imports of meat, dairy products, eggs, poultry, bacon and potatoes.

The British Government also made bilateral trade agreements, one of the main purposes of which has been " to secure improved opportunities for British exports to various countries, and particular attention has been given to obtaining better markets for coal, textiles and other exceptionally depressed industries." Bilateral trade agreements have been made with Norway, Sweden, Denmark, Argentine, Russia and the United States, and have been based generally on tariff reductions which are of general application as a result of the operation of the unconditional most-favoured-nation clause. But such agree-

ments have sometimes had the effect of being retaliatory on third parties as, for example, against Japan.

NOTES

[1] See *Britain in Recovery*, p. 125 et seq.
[2] *Ibid.*, p. 126.
[3] *Ibid.*, p. 129.

APPENDIX II

THE CO-OPERATIVE MOVEMENT

PART I.—Consumers' Co-operation

CONSUMERS' co-operation is, of course, by far the most important form of co-operation, and is the true heir of the Rochdale Society of Equitable Pioneers. Their fundamental principle was to look to the interest of the consumer, and an underlying motive was the "distribution of the surplus, representing the difference between receipts and costs (after paying a fixed rate of interest on capital), not among shareholders in proportion to their capital, nor among the workers in proportion to their wages, but among the customers in proportion to their purchases." [1] Thus there is a decisive break between private enterprise and the consumers' co-operative movement. They approach the problem of large-scale production, of combination and association, from the viewpoint of the consumer as owner of the retail store. The basis of the movement is the association of consumers, the working unit of which is the Co-operative Retail Distributive Society, on which has been built a vast organisation of co-ordinating bodies, federal groups, wholesale, manufacturing and agricultural societies besides banking and insurance societies.

The movement is voluntary and democratic,[2] Each member of a retail society has one vote and there are over 8,000,000 [3] members, so that the movement has members in over half the families in the country, after allowing for some families having more than one member.

At the end of 1937 there were 1,252 registered co-operative societies mainly engaged in the supply of the commodities; of these 1,133 were retail, 119 wholesale and productive societies.[4]

The retail societies control some 24,000 [5] shops, and the vast majority of them are members of either the English or the

Scottish Wholesale Co-operative Society. These two Societies are the sole members of the English and Scottish Joint Co-operative Wholesale Society and of the Co-operative Insurance Society. Banking is carried on as a separate department of the wholesale societies.

The sales of retail societies in 1937 were £248,273,000, while the sales of the wholesale and productive societies were as follows : [6]

	C.W.S.	S.C.W.S.	E. & S.C.W.S.	Other Societies.
	£'000	£'000	£'000	£'000
1937 . .	119,852	22,447	8,297	8,021

The grocery trade is the nucleus of the co-operative retail trade, and it was estimated that in 1936 some 10,660 shops were grocery, provisions, bread, confectionery and cooked-meat shops, with a volume of trade of about £135,000,000 or an average of 6s. 8d. purchase per member per week.[7] Butchery accounts for over 5000 shops ; fish, fruit and florists for about 1250, while the relative and absolute increase in the importance of dairying has been enormous. Their sales of milk increased by about 10 per cent. in one year between 1937–38, and they supply approximately 20 per cent. of the total milk sales in Great Britain.[8]

The societies have also developed their sales of clothing, furniture, hardware and, in 1936, ran 144 hairdressing establishments, while their departmental stores vie with the comparable stores of private enterprise for appearance and service.[9]

For specialised services and goods, the retail co-operatives have regional federal societies. For other things, the sale or manufacture of which can be best organised on a national basis, there are the national federal societies, as, for example, the Co-operative Press Ltd., the Co-operative Printing Society and the Co-operative Dental Association Ltd. (which is registered under the Companies Act). There is also the Co-operative Union [10] which acts as a unifying organisation.

Before leaving the retail side of the co-operative movement, it is illuminating to compare the estimates of the average sales

per retail co-operative store and of the ordinary unit shop. According to the Co-operative Union the former's average was £9,762 as against £3,333 for the latter.[11] This, of course, is only an indication of the difference. We have little or no information of the average number of customers per shop for the nonco-operative store, nor the range of customers for the different stores, nor the sales turnover by the same categories. While the co-operatives provide some information, a sufficient indication of the vast difference between stores may be gauged by the fact that the number of members per *society* varies between about 215 and over 100,000.

There were 119 wholesale and productive societies at the end of 1937, but the bulk of the wholesale business was done by the C.W.S., S.C.W.S. and the E. & S.C.W.S. These had a total membership of 1,813; 1,255 were retail societies and 558 employees of the Scottish Wholesale Societies.

There were 996 societies which included production in their activities with a gross value of £99,513,000, of which food and tobacco accounted for £64,906,000.

The Banking Department of the C.W.S. provides all the banking services and conducts the banking business of all societies in the co-operative movement in England and Wales, and of a considerable proportion of the Trade Unions. Its receipts on deposit and current account totalled £391,355,000 and the importance of this may be grasped from the fact that the Midland —with the largest deposit and current account in the world— totalled £496,296,378.[12]

The Co-operative Bank[13] had 71,435 separate accounts, of which 884 were co-operative members, 10,134 Trade Unions, 1020 clubs, 10,781 other mutual organisations and 48,616[14] individuals. The growth of their banking business has been invaluable to co-operation, and they are now as independent of the commercial banks for short-term loans as they have always been independent of the capital market for long-term capital.

In addition, a word must be said about one of the other activities we have mentioned. The Co-operative Insurance Society Ltd. is owned by the C.W.S. and the S.C.W.S., and does business in all the main branches of insurance, excluding marine insurance. The total premium income for all departments in 1937 amounted to £8,416,000, more than half of which was

industrial insurance. Collective life insurance, undertaken largely with the retail societies, gave them a premium income of £529,000 and the total insurance funds at the end of 1937 was £26,047,000.

The co-operative movement has been described as a consumers' cartel in which nearly every kind of commercial activity takes place.[15] Behind this retailing, however, there is a complex of commercial and financial transactions and the finance is provided by the members of the local distributive societies.

The capital of these retail societies in 1935 was £198,146,861 of which the share capital (*i.e.* capital contributed by members, none of which amounted to more than £200 per head per society) was £135,745,524. Loans were £34,007,921, disclosed reserves and cash balances, etc., £12,732,520 and £15,146,861 respectively. The share capital of the C.W.S. and the S.C.W.S. was £13,071,445 and £1,804,267 respectively, while their loan and deposit capital amounted to £60,243,148 and £9,176,203 respectively, with reserves for both societies totalling £47,327,685.

In addition, of course, there was the capital of the federal societies which amounted to £6,800,000, of which £2,000,000 was reserves.

Thus the development of the consumers' co-operative movement since 1844 has been such that they now do at least one-tenth of the total retail sales in the country, and are increasing their proportion of wholesale and productive business; though it must be admitted that progress in production has made infinitesimal strides compared with the progress made in wholesaling and distribution. Lastly, their banking, insurance, printing, building society and other activities are tending to put them in a position where they can cater for all the material needs and some of the social needs of a large proportion of the community.

PART II.—Trading and Service Societies

Before leaving the important subject of co-operation some short account must be given of these Trading and Service Societies which exist apart from the Consumers' Co-operative Movement. The members of these societies have formed *ad hoc* associations for a particular economic purpose; generally,

these are in order to buy their requirements more cheaply or to sell their produce at a lower sales cost and possibly at a better price than they could obtain acting individually.

These societies cover four broad categories which include those two just mentioned, and also societies which run activities such as supplying agricultural requisites; co-operative bacon factories and societies organised by fishermen who combine in co-operative fishing ventures.

The number of members of all these four types of societies was 294,000 in 1936, and the total share and loan capital and reserves amounted to £4,241,000 in 1936 and £4,596,000 in 1937.

The following table shows the number of societies and their financial position in the two years 1936 and 1937 :

	Trading Societies.		Service Societies.	
	1936.	1937.	1936.	1937.
Number of Societies . .	514	487	746	722
Number of Members .	138,451	140,872	155,539	153,480
Salaries and Wages . .	£635,903	£661,580	£24,543	£24,040
Surplus on the Year . .	£421,227	£369,416	£106,944	£96,949
Sales : Requirements .	£9,498,166	£11,031,681	—	—
Produce . .	£6,961,988	£7,296,440	—	—

NOTES

[1] Committee on Industry and Trade, *Factors in Industrial and Commercial Efficiency*, p. 115.

It is not irrelevant to point out that the dividend has an advertising effect. Certain other features also should be mentioned. The co-operatives do not have to bear any costs of capital promotion (compare new issues); they obtain a plentiful supply of capital cheaply from their own consumers, and the retail societies capitalise the wholesale societies. In addition, their banking and insurance activities place important funds at their disposal. In short, the Co-operatives are a new *imperium*

in imperio in private enterprise. See S. R. Elliot, *England, Cradle of Co-operation*, p. 99.

[2] *Consumers' Co-operative Movement in Great Britain*, Carr-Saunders and others, p. 7.

[3] *Ministry of Labour Gazette*, January 1939, p. 8.

[4] *Ministry of Labour Gazette*, ibid.

[5] There are probably more than 83,000 *sales points*.

[6] *Ministry of Labour Gazette*, op. cit.

[7] *Manchester Guardian Commercial*, 20th May 1938, p. 465.

[8] *Co-operative Review*, May 1939, vol. xiii., No. 5.

[9] See, for example, the new North London Co-operative Departmental Stores in Burnt Oak.

[10] The Union is itself a co-operative society registered under the Industrial and Provident Societies Acts. It has five main groups of functions: (1) to formulate policy; (2) to provide a framework for discussion between the other societies; (3) to assist in the settlement of disputes between constituent societies; (4) membership of the Union guarantees the co-operative character of the member society; (5) provides a range of services, technical, legal, labour, agricultural, statistical, educational, financial and publicity.

See *Consumers' Co-operative Movement*, p. 212.

[11] *Manchester Guardian Commercial*, 20th May 1938, p. 456.

[12] *Economist Banking Supplement*, 21st May 1938, p. 25.

[13] See N. Barou, *Co-operative Banking*.

[14] *Ministry of Labour Gazette*, January 1939, p. 10.

[15] *Consumers' Co-operative Movement in Great Britain*, p. 128.

APPENDIX III

INDICES AND OUTPUT OF BUSINESSES, 1929–1938.

	1929.	1932.	1937.	1938.
INDICES OF PRODUCTION :				
London and Cambridge Economic Service— 1924=100	110·6	84·9	124·0	109·5
Board of Trade 1930=100	108·5	90·5	132·8	124·3*
OUTPUT OF :				
Coal (million tons)	258	209	241	228
Pig Iron (million tons)	7·6	3·6	8·5	6·7
Steel (million tons)	9·6	5·3	12·9	10·4
Rayon Yarn and Waste (million lb.)	56·9	72·3	154·8	140·3
Electricity by Authorised Undertakings— million kw. hours	10,294	12,241	22,902	24,376
Shipbuilding (tonnage commenced in thousand tons)	1,650	72	1,057	505
Number of Private Motor Cars †	182,352	171,243	389,633	342,390
Ministry of Labour Index of Wage Rates, 1924=100	98·8	95·9	101·7	—
"ECONOMIST" INDEX OF BUSINESS ACTIVITY, 1935=100 :				
Employment—all Trades	98·5	90	111	110
Coal Consumption	103	90	109·5	102·5*
Electricity Consumption	68	71·5	126·5	131·5
Merchandise on Railways	127	86	113	95
Commercial Motors in Use	76	86	111	114·5*
Postal Receipts	95	94·5	106·5	110
Building Activity	60	57	98·5	90
Iron and Steel Consumption	97	59·5	142	112
Cotton Consumption	111	94	116	89*
Imports of Raw Materials	98·5	84	121	106·5*
Export of Manufactures	137·5	82	112	98*
Movement of Shipping	108·5	94·5	109	105
Provincial Bank Clearings	91	86·5	105	101*
London Bank Clearings	109	86·5	101·5	95*
Complete Index				
Board of Trade Wholesale Index, 1930=100	118·8‡	85·6	108·7	101·4

* Preliminary figures.

† Year ended 30th September.

‡ Estimated on the basis of Index, 1913=100.

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