



PLANNING
UNDER
CAPITALISM

A. W. RATHER

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The Problem of Planning in Great Britain

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PART I
THE ECONOMICS OF PLANNING

CHAPTER I

THE CASE AGAINST PLANNING

I believe that the conditions and the methods of supplementing our present economic system with deliberate planning constitute one of the most urgent and difficult problems of our day. (Sir Arthur Salter, *The Framework of an Ordered Society*, Cambridge University Press, p. 4.)

ALTHOUGH informed opinion is far from unanimous as to the causes of the major economic difficulties of the post-war era, and still less unanimous as to the remedies, there is substantial agreement on one important point. Few indeed are the voices raised in support of the *status quo*. Few indeed are those who consider our economic difficulties to be the outcome of transitory causes which will automatically work themselves out. And yet no further back than 1930 and 1931 many well-informed and even many expert observers assured us that the shortage of gold, or war debts and reparations, or tariffs were the prime causes of these difficulties. The intensity and duration of the Great Depression has changed all that. We no longer pin our faith on World Economic Conferences, or even on the manipulation of currency to offset any actual or threatened shortage of gold, as adequate solutions of the economic problem.

However helpful we may consider international agreements on tariffs and debts, or wise credit control on the part of the authorities, we realize that the economic system can be put on a sound basis only by more fundamental measures. The causes of our major economic difficulties, it is now generally agreed, are inherent in the system as it now functions. What these inherent defects are is, of course, a matter on which many opposing views are held.

Numerous as these opposing views are, however, they may be reduced, when shorn of all but their fundamentals, to the number of three. Firstly, there is the view that the

defects of the economic system are due, in the last analysis, to unwise interference on the part of governments. Secondly, there is the view that these defects are due to the fact that the system has not been adapted to cope with the new factors which have emerged and which are held to be of fundamental significance. Finally, there is the most extreme view which, while it does not necessarily deny that there is an element of truth in the two former views, considers that they fail to go to the root of the matter. They ignore, it contends, the antinomies inherent in the price economy—antinomies which no mere adaptation, no mere reformism, could possibly counteract.

In this chapter we are concerned with the first view, as upon it rests the case against planning in all its forms. Clearly, before we pass on to consider the possible justifications for planning, it is our first task to consider whether planning is necessary at all. It may be, as the advocates of this view contend, that a policy of liberal capitalism which would free the economic system from the shackles which obstruct it—the obstructions to international trade; restriction schemes, the elements of monopoly—it may be that such a policy would restore the economic system to its old-time efficiency. It may be, as is also contended, that to compromise with the capitalist system—to supplement the price mechanism with measures of planning—is to court disaster.

Our first task, then, is to consider carefully this point of view—a point of view which is backed by the most authoritative body of expert opinion in the country. Now this point of view, the most complete exposition of which is to be found in Professor Robbins' *The Great Depression*, is based on two main postulates. Its first postulate, which few will question, is that the main tendencies in the post-war period have given rise to numerous obstructions to the efficient functioning of the economic mechanism. Its second main postulate, which is far more controversial, is that these tendencies are mainly, if not entirely, the resultant of State policy. "Now there can be little doubt", writes Professor Robbins, "that in the post-war period, the capacity of the economic system to sustain shocks and to adapt itself to a

process of rapid change has been seriously impaired. The essence of pre-war capitalism was the free market . . . in the sense that the buying and selling of goods and the factors of production was not subject to arbitrary interference by the State or strong monopolistic controls . . . Since the war it has tended to become more and more restricted . . . The cartellization of industry, the growth of the strength of the trade unions, the multiplication of state controls, have created an economic structure which . . . is certainly much less capable of rapid adaptation to change than was the older, more competitive system." "The elements of rigidity and instability", concludes Professor Robbins, "are the outcome of policy."*

If this verdict be correct, our course is clear. If the causes of our major economic difficulties are due to policy, the obvious solution of those difficulties is to reverse that policy. "It has been the object of the last section", writes Professor Robbins in his chapter "The Conditions of Recovery", "to show that if recovery is to be maintained and future progress assured, there must be a more or less complete reversal of contemporary tendencies of governmental regulation of enterprise. The aim of governmental policy in regard to industry must be to create a field in which the forces of enterprise and the disposal of resources are once more allowed to be governed by the market."†

This conclusion is deduced from the most complete and advanced body of economic theory which has as yet been evolved. Indeed, it is no exaggeration to say that this body of economic theory is the most authoritative and masterly analysis of the mechanism of the economic system which we now possess and which must form the groundwork of all sound economic thinking.‡

Their analysis has shown with masterly lucidity the requisite conditions of the efficient functioning of capitalism. From this they have proceeded to show how the post-war economic tendencies have given rise to the obstructions to its

* *The Great Depression*, Macmillan, 1934, pp. 59-60.

† *Ibid.*, p. 193.

‡ The reader is referred to the books marked with an asterisk in the bibliography.

mechanism. Wage rates have lost their flexibility, the freedom of markets has been obstructed by cartels and monopolies fostered by State policy, restrictions have been imposed on the exchange of goods and services between countries, governments have promoted control and bounty schemes—these are the tendencies in policy which have caused the temporary breakdown of the traditional economic system.*

Social policy, then, according to this view is the villain of the piece: governments have interfered disastrously with the free working of the economic system. There are few who will deny that this view contains at least a considerable element of truth. Sir Arthur Salter, for example, in the book in which he advocates a policy of planning,† prefaces his argument by a scathing indictment of several of the governmental schemes of assistance to industry. But to point out that serious blunders have been made in initiating the new economic policy is not to show that that policy is fundamentally unsound. Indeed, such blunders are to be expected at the outset of any new policy, however sound it may be. Before we decide that the whole trend of policy in recent years has been in the wrong direction, we must push our inquiry one stage further back. We must ask not only whether many of our difficulties are the outcome of social policy, but also what the underlying reasons are which have produced that policy. Why is it that in country after country governments have been induced to promote schemes which have had as their object the introduction of a more conscious control over economic forces? It is only when we have answered this question that we shall be in a position to judge whether the trend of economic policy in all the important industrial countries is without justification and may be safely reversed.

The view of the London economists on this question is that the trend of social policy is due to the dislocations and tendencies occasioned by the War. Hence they regard the economic difficulties of the post-war era as merely transient phenomena, in so far as they are not perpetuated

* *The Great Depression*, pp. 185-90.

† *The Framework of an Ordered Society*.

by policy; they do not consider them as in any way the product of new factors of permanent importance.

The following is a brief account of the causes of the post-war economic difficulties according to this school of thought.* The War dislocated the economic system—a system which had worked for a hundred years prior to 1914 without experiencing difficulties at all comparable to those of the post-war era and which in that period had raised the standard of living in this country fourfold—in four principal ways. Firstly, it called into being a huge apparatus of mechanical equipment which on the resumption of peace was rendered in large part superfluous. The surplus capacity problem of the basic industries is largely the product of this fact. Moreover, the measures which were necessary for the setting up of this apparatus—the centralization of control of industrial operations—were such as permanently to impair the capacity of the economic system for further change. This is the second of the four factors produced by the War. The grouping of industrial concerns into great combinations, the authoritarian fixing of wages and prices, the imposition of the habits of collective bargaining—these measures, while necessary for the production of war equipment on a vast scale, undermined the flexibility of the economic system.

The third product of the War was the disruption of the world market. This meant a restriction of the area within which the division of labour had scope, thereby further accentuating the maladjustments of industry. Fourthly, concurrently with the structural dislocations necessitating re-adjustment on an unprecedented scale and with the impairing of the elasticity of the economic system, came the break-up of international monetary unity. Trade, therefore, no longer took place on the basis of rates of exchange which fluctuated only between very narrow limits, as it had done for the hundred years preceding the war. The repercussions of the instability of the exchanges during the seven or eight years subsequent to the Armistice produced serious difficulties, the course of trade being gravely distorted. ✓

* This account is based on Chapter I, entitled "1914-1933" of Professor Robbins' *The Great Depression*.

These, then, were the main factors produced by the war which so gravely dislocated industry in the early post-war years—factors the effect of which was enhanced by the peace settlement and by the financial blunders of the belligerent countries. In this analysis no controversial point arises. It is generally agreed that these factors and the repercussions they set up were largely responsible for the rigidities of the economic system, the difficulties of the British export industries, and for the conditions which led up to a return to the Gold Standard at too high a parity.

But the analysis of the London economists does not stop there. They proceed to point out that the economic difficulties thus produced are the sole cause of the new economic policy so widely adopted—a policy of encouraging monopolistic control of markets, of setting up pools and restriction schemes, of granting bounties and promoting marketing schemes. They deny, that is to say, the emergence of new social and economic factors which would justify or even explain that policy.

“Certainly no one who wishes to understand the persistence of the maladjustments of the great slump”, writes Professor Robbins, “can neglect the element of inelasticity and uncertainty introduced by the existence of the various pools and restriction schemes, the rigidities of the labour market and cartel prices which are the characteristic manifestation of these developments . . .

“These tendencies are the creation of policy. It is sometimes thought that they are the inevitable outcome of modern technical conditions. But this is not the case. . . . Historically the fact is that the elements of rigidity and instability, which we are discussing, *are the direct outcome of policy.** So far in the history of the world, cartels and labour organizations exercising strongly monopolistic influence have not shown themselves to be capable of survival, save as a result of direct or indirect assistance from States. We have seen already how the growth of war-time controls fostered the growth of such bodies. The cartel systems of continental Europe are the direct creation of tariffs and

* Italics are mine.

State intervention. The post-war rigidity of wages is a by-product of Unemployment Insurance. So, too, with the great restriction schemes which have exerted such influence on the various commodity markets. . . . All are inconceivable without direct State intervention.”*

Thus, according to this view, the various governments committed a cardinal error. Instead of endeavouring to restore the pre-war freedom of the market and thereby the elasticity of the economic system, which would have enabled industry automatically to effect the necessary adaptations, they perpetuated and even strengthened the bodies which hindered this freedom, such as cartels and trade unions which were fostered by war-time controls, and embarked on new schemes with a similar tendency.

There is, of course, much justification for this indictment. Indeed, many of the schemes promoted by governments were foolish to the degree of fatuity. But does not general condemnation of the “new economic policy” go too far? Were there not new and permanent factors in the post-war situation in addition to the transient factors produced by the war? And were not these new factors so far-reaching in their effects and so novel in their character as to prevent the simple solution of returning to the free capitalism of the epoch before the war?

From the passage quoted above it will be seen that Professor Robbins denies that any new factors have emerged in the post-war era to justify a departure from the pre-war capitalist system. “The elements of rigidity and instability”, he says, “are the direct outcome of policy”, and are not “the inevitable outcome of modern technical conditions.” Nor does he seem to think that these elements of rigidity and instability are in any important degree the outcome of new social as distinct from economic factors, for he does not even mention them. It is here that the analysis of the economic situation put forward by the London economists is incomplete. It may be that modern technical conditions and the new social factors are not such as to render necessary a new economic policy. But surely it cannot be denied that they are of sufficient importance to be analysed and their

* *The Great Depression*, p. 61.

significance weighed. Until this is done we cannot be satisfied that: "The aim of governmental policy in regard to industry must be to create a field in which the forces of enterprise and the disposal of resources are once more to be *governed by the market.*"*

One of the main objects of this book is to attempt an analysis and assessment of the significance of the new factors of the post-war era. But before we undertake this task—a task which will occupy us throughout the next chapter—it is well to remind ourselves of the conditions requisite to the free functioning of the price economy. We can then observe how far these conditions have been affected.

Five such outstanding conditions may be distinguished.

(1) Producers and consumers must possess the knowledge necessary to a rational judgment of each situation and the ability, the initiative, and the will to act upon it.

(2) The exercise of these judgments must not be unduly impeded by vested interests or public opinion.

(3) The normal incentives of the market must be adequate to evoke the performance of all the economic activities necessary to the efficient functioning of the system.

(4) The size and structure of the unit of production must not be such as to render it inflexible and unresponsive to change.

(5) Demand shall fluctuate only within reasonably narrow limits.

These conditions have, of course, never prevailed in anything approaching their entirety. Throughout the greater part of the hundred years before the war, however, they prevailed in Britain, and somewhat later in the other advanced industrial countries, to a degree known neither before nor since in the world's history. The mental atmosphere of that time as well as the material circumstances were as favourable to free capitalism as it is possible to imagine.

The mental atmosphere prevailing in the business world of the nineteenth century was largely the outcome of the opportunities opened up by all those forces which had gone to produce the Industrial Revolution. As the Hammonds have

* *The Great Depression*, p. 193. The italics are mine.

pointed out in their brilliant study of the mid-nineteenth century, never had man passed with steps so sure and swift from poverty to wealth. Thus to the man of that period, dominated by excitement about the Industrial Revolution, associated as it was with the great emancipating truths that the world had learnt from the American and French Revolutions, industrial success had all the glamour of a new religion. "As industrialism dethroned feudalism, the prestige of work dethroned the prestige of idleness."* This mental outlook naturally had an important effect on the working of the capitalist system. For it meant that men were willing to endure hardship, to sacrifice their personal comfort and that of their fellows, to take risks, and to seek out opportunities, with an ardour which to our age seems lamentably misplaced.

As far, therefore, as the human factor was concerned, the capitalist system operated under ideal conditions. New methods were adopted, costs were cut, new markets were invaded with a fine disregard of obstructing interests. Just as the religious fervour for economic achievement generated in Russia by the Communist Party made possible the Five Year Plan, so the religion of "getting on" in Victorian England gave to British capitalism its amazing elasticity and power of expansion.

As the material conditions of the age gave this religion full scope for expression, the unregulated price economy operated with a regularity which, compared with the post-war era, may be described as frictionless. These material conditions are so well known as to make a description of them unnecessary, but, in order to contrast them with those of to-day, a bare enumeration may not be superfluous. The most important condition making for flexibility in industry was the comparatively small size of the unit of production. The dominant form of the business unit was the one man business or partnership. This meant not only that the incentives to seize the opportunities of the market were greater than to-day, owing to the fact that the manager of a business reaped the full reward of his enterprise. It also meant, for the same reason, that the obstacles to the taking of

* J. L. and Barbara Hammond, *The Age of the Chartists*.

enterprising decisions were less, there being far fewer interests to placate. A further implication of the small size of the business unit is that overhead costs bear a far smaller proportion to total costs than is the case with a typical modern firm. And, as the highly rationalized countries such as Germany and the United States have found to their cost in the Great Depression of 1930, the higher the proportion of overhead costs the more difficult it is to adjust production and business policy generally to fluctuations of the market.

The second condition favourable to the working of the price economy was that the period was pre-eminently one of expansion. Population was increasing, wealth per head was increasing, the geographical area suitable for exploitation was increasing. This meant, generally speaking, a steady increase in the demand for the staple products of the world—coal, iron and steel, textiles, the basic agricultural products. The markets for all these products were year by year, with periodical minor set backs, steadily expanding. Hence the problem, which has become so much more difficult to-day, of anticipating and catering for demand was comparatively simple. Moreover, the nineteenth century world was much poorer and far less developed, so that a larger proportion of the aggregate demand was for these staple products, thus further simplifying the problem of harmonizing production and demand.

In addition to the comparatively small size of the business unit and the expansiveness of a comparatively simple demand was a negative condition highly favourable to the flexibility of the economic system—the absence of monopolistic bodies. There were no powerful trade unions to prevent wage rates fluctuating according to the demand for labour, or cartels or giant buying agencies obstructing the free functioning of the market.*

With the coming of the new century the break-up of what Sir Arthur Salter has called "a fortuitous combination of circumstances, precarious and temporary"† was already

* The importance of this negative condition may be judged from the opinion of Professor Robbins quoted above as to the effect on the economic situation of its disappearance.

† Sir Arthur Salter, *Recovery*, p. 13.

beginning. The slackening of the momentum of expansion—a momentum which had been produced by the industrialization, first of the old countries, then of the new countries and had been accentuated by the unprecedented growth of population—was partly responsible for this. For it meant that the automatic expansion of the old basic industries, especially iron and steel and coal, was no longer possible. In the first place, the original construction of the means of communication and the setting up of industries in the new countries necessitated a demand for the products of the heavy industries in excess of that required for maintenance and replacement. In the second place, as Mr. Loveday has pointed out: "The days are past when the old major industries developed almost automatically year by year to meet the needs of a rapidly increasing population."* And the consequences of these two factors were accentuated by the fact that when a new country sets out to develop industries by protection and subsidies it selects just these older industries, the technique of which is most easily acquired. In this way the outlet for the basic products of the older industrialized countries has been restricted.

It is a mistake, however, to regard, as some writers do,† the termination of the era of expansion as the principal cause of the difficulties of modern capitalism. Its significance lies no deeper than in the serious transfer problem they have created and in the economic nationalism they have exacerbated. The root causes of the difficulties which confront the modern economic world lie elsewhere.

To anticipate the main conclusions of the next chapter, these causes are to be found partly in two characteristics of modern industry and partly in a fundamental change in the mental atmosphere in advanced modern countries. The first characteristic is the scale on which a large part of the economic activities of the community must under modern conditions be conducted. The second characteristic is the growing instability of demand, as a result of modern social and economic changes.

* Mr. A. Loveday, *Britain and World Trade*, Longmans, 1931, p. 95.

† Mr. H. Macmillan in *Reconstruction*, Macmillan, 1933.

The fundamental change in the mental atmosphere of advanced countries is the profoundly modified attitude to the human factor in production. As Mr. Loveday puts it, we no longer tolerate the treatment of our citizens as ballast to be thrown over to lighten the ship when storms come.* This changed attitude to labour finds expression in social insurance and the revolutionary change in the administration of poor relief. Another important aspect of this changed mental atmosphere is the decline of the religion of success referred to above. In consequence, business men are no longer so willing to sacrifice other interests in order to cut costs, to introduce new methods, or to oust their competitors.

These three factors are at the root of the crisis of modern capitalism. The fact that demand is "becoming more and more fluid"† means that "the problem of anticipation of demand will become more and more difficult".‡ On the other hand, the increasing scale of production implies two things. First, that production is becoming more and more roundabout; that is to say, an increasing period of time elapses on the average from the moment when a commodity enters the first stage of production until it is placed in the hands of the consumer. Second, that fixed capital is assuming an increasingly important part in production. Both these implications of large-scale production accentuate the problem created by the increasing fluidity of demand. For the fact that fixed capital is assuming an increasingly important part in production means that industry is becoming less and less flexible, owing to the increasing size of the business unit, and the fact that the more specialized machines become, the more expensive and difficult it is to change the kinds of products produced. While the fact that on the average an increasing length of time elapses from the moment a commodity enters the first stage of production until it is placed in the hands of the consumers (or to put it more accurately but more technically, the lengthening of the time structure of production) means that producers must anticipate demand for

* *Britain and World Trade.*

† *Ibid.*, p. 92.

‡ *Ibid.*, p. 92.

a longer period ahead. In a word, demand is becoming more and more unstable, on the one hand, while industry, which must forecast that demand for further and further periods ahead, is becoming more rigid, on the other. Moreover, this tendency towards industrial rigidity is seriously accentuated by the modern attitude to labour, and the decline of the religion of success.

These then are the chief factors which will determine the character of the economic system in the new era which has already begun. Have the London economists, who wish to persuade us that the solution of the economic difficulties of the post-war period is a return to the liberal capitalism of before the war, given due weight to these factors? There is, of course, much truth in their contention that these difficulties are the outcome partly of factors produced by the war and partly by unwise governmental measures designed to counteract them. But while the outcome of some of these factors may be eliminated altogether—such factors, for example, as the unsettlement of the international exchanges, the war-time expansion of the heavy industries—others have merely hastened tendencies which were already showing themselves before 1914. Monopolies, cartels and other associations to influence the working of the market, and trade unions on a national scale to secure complete monopoly of labour in particular industries were already being formed. And the removal of these—an indispensable condition of the free working of the price economy—or even a substantial lessening of their power, is scarcely likely to be achieved. The modern scale of production and the temper of the modern mind are insuperable obstacles to the permanent success of such a policy.

CHAPTER II

THE NEW ECONOMIC FACTORS

Some of the impediments to the free working of automatic adjustments can be removed or reduced, but when we consider the factors which are novel in degree and in kind which restrict and disturb the normal free adjustments we realize that the automatic system cannot function as easily and frictionlessly as it did. (Sir Arthur Salter, *Framework of an Ordered Society*, Cambridge University Press, 1933, p. 4.)

EVEN to the least expert eye there are obvious symptoms of the emergence in our day of new economic forces. The chronic depression of the staple industries in all parts of the world—in the United States, in Germany, in England; the rapid expansion of new industries which are mainly concerned in the production of luxury goods, the higher level of unemployment even in times of good trade; the attempts of many industries—coal, cotton, iron and steel, agriculture—to reconstruct themselves on entirely new lines—all these phenomena are symptoms of the new forces at work in the post-war world.

Now the economic factors which are novel in degree or in kind in the post-war world may be classified under two main heads according to the side of the economic equation on which they come into play. There are the factors working primarily on the demand side of the equation and those working on the side of production.

To take first of all the factors on the side of demand, of which one is of outstanding importance. This outstanding factor is the change from an expanding to a stationary population. A second factor is the change in the distribution of wealth. These two factors, together with the rising productivity of industry, are effecting a profound change in the character of demand. "All these causes," writes Mr. Loveday, "the greater wealth per head, the changes in age

and wealth distribution, the increase in leisure and advance in culture, tend to the same result—instability of demand.” “Year by year the problem of anticipating demand will become more difficult and year by year the functions of sale and advertisement will become more important.”*

The fact that population has become approximately stationary in this and every other advanced industrial country is increasing the instability of demand in two ways. In the first place the fall in the birth rate implies that a smaller proportion of the family income is required for the upbringing of children. More money, therefore, is available for luxury or semi-luxury expenditure. In the second place, as the fall in the birth rate lessens the number of children faster than the number of adults, it also implies that a larger proportion of the population is earning. To-day the proportion of the population of the countries of North and West Europe which is under fifteen years of age is about 25-28 per cent., whereas before the War it was 33 per cent.† In England and Wales this is illustrated by the fact that, while population increased by 5·5 per cent. in the decade 1921-31, the number of occupied persons increased by almost 10 per cent., from 17,178,000 to 18,853,000.‡ And this tendency will make itself increasingly felt in the years immediately ahead. According to Sir Josiah Stamp the numbers under fifteen years of age will be halved in about thirty years, while the numbers from fifteen to forty-five years will be down by 25 per cent.§ This is the chief explanation of the fact that the proportion of the family income available for luxury expenditure has increased. “With one child less in the worker’s family than in 1914”, writes Professor Clay, “it is not surprising that the sales of cigarettes and chocolates have resisted the slump.”||

The second factor—the change in the distribution of income—is working in the same direction. As compared with the pre-war period, the less rich classes enjoy a larger

* *Britain and World Trade*, Longmans, 1931, p. 92.

† *Ibid.*, p. 92.

‡ Occupations Volume of the 1931 Census.

§ Letter to *The Times*, October 27th, 1934.

|| *The World’s Economic Crisis*, p. 156.

share of the product of industry. The outstanding change in this redistribution of income is the rise almost throughout the world of the wages of the less skilled workers.* This change is partly due to the increasing mechanization of production, which has increased the demand for the less skilled worker and partly, as far as this country is concerned, to the extension of the Trade Board system and of unemployment insurance. In so far as the gain of the less skilled worker has been due to the increasing mechanization of production, it has tended to be at the expense of the skilled worker, but in so far as it has been due to the greater bargaining strength of labour, at the expense of profits and the consumer. The extension of the social services since the war has also tended to raise the *per capita* expenditure of the poorer classes.

These are the main reasons for the increasing instability of demand. The less children there are to provide for in the home, the larger the number of wage-earners there are relatively to the whole population, the more unskilled wages rise, the smaller is the proportion of the incomes of the masses that is required for necessities. The average man, therefore, has a higher proportion of his income available for expenditure on luxuries. And, as Mr. Loveday has pointed out, "Once basic needs are satisfied demand becomes optional. Once a certain income is reached all demand becomes optional—for one form of diet may be chosen in place of another, and within the limits of fashion one textile for clothing for another."† Once a man has supplied his basic needs, he experiences no necessity in his expenditure. He may patronize the cinema one month and desert it in order to buy gramophone records the next.

The effect of these factors on the character of demand has been accentuated by the rise in the productivity of industry. Since the termination of the war until the year 1930 production per head has been increasing in every continent. Indeed in the decade 1920-30 the rate of economic progress has been phenomenal, particularly, be it noted, in those industries catering for mass consumption. Thus, while

* A. Loveday, *Britain and World Trade*, p. 92.

† *Ibid.*

the need for providing for the next generation has diminished, while the percentage of the population which is earning has increased, while distribution has tended to shift in favour of the poorest classes, *per capita* wealth has also tended to increase.

The following figures give a rough idea of the extent of this tendency. In 1927, which was a fairly normal year from the economic point of view, while the population of the world was 9 per cent. greater than in 1914, the production of food was 12 per cent. greater, and, what is more significant, the production of raw materials and colonial products had increased by about 43 per cent.* And, as Mr. Loveday has pointed out, the increase in wealth per head was greater than these figures indicate. This is due to the fact that to-day raw materials constitute a relatively smaller proportion of the total costs of exactly those classes of goods the demand for which has increased the most, e.g. records, films, aeroplanes. According to the census of production the ratio of the cost of raw materials to value added in manufacture fell in Great Britain from 146 per cent. in 1907 to 127 per cent. in 1924; in the United States from 146 per cent. in 1914 to 134 per cent. in 1925.† The 43 per cent. increase, therefore, in the production of raw materials and colonial products over the level of 1913 represents an even greater increase in the production of consumable goods.

Such are the factors which have effected important changes in the character of demand. Now these changes are having important reactions on industry. In the first place, the increasing fluidity of demand is making the problem of anticipating consumers' wants more and more difficult. This problem, moreover, is further accentuated by the great advance which is taking place in the technique of production: production processes are becoming more and more elaborate or roundabout. Hence the period of time which elapses, on the average, from the moment when a commodity enters the first stage of production until it is placed in the hands of

* Essay entitled "Quo Vadimus?" in *Britain and World Trade*, by A. Loveday, Longmans, 1931.

† *Ibid.*

the consumer, is becoming longer. Thus producers have to forecast demand for further and further periods ahead, a factor which, in conjunction with the increasing fluidity of demand, makes the task of harmonizing supply with demand ever more difficult.

Secondly, the increasing proportion of the national income which is devoted to luxuries is helping to create a serious transfer problem—the problem of transferring capital and labour from the heavy to the light industries. And this tendency for the production of luxury goods and services to expand at the expense of the heavy industries is accentuated by the progress in technique and by the population trend. Economies in the basic industries tend to reduce the labour force required in these industries, as the demand for their products is relatively inelastic. And this factor of inelastic demand is no longer offset, as it was in pre-war days, by a rapidly expanding population, which requires a corresponding expansion of industrial equipment. “The days are past when the old major industries developed almost automatically year by year to meet the needs of a rapidly increasing population.”*

The impact of all these factors, however, on the coal, iron and steel, cotton, and shipbuilding industries has been rendered more severe by the War. Industry, as Professor Clay has pointed out,† is capable of adapting itself year by year to the small changes in demand and technique which have hitherto characterized industrial development. But when in an industry these normal piecemeal adjustments are suspended, as they were during the war and the post-war boom so that they accumulate to a revolutionary change, or when new conditions require large scale adaptations—in these circumstances stagnation and chronic depression is likely to ensue. For depression tends to breed depression. Redundant plant is kept in existence by creditors, particularly by the banks, who always hope that trade will recover. Directors and managers, in order to save their positions, resist amalgamations designed to eliminate plant and

* Mr. A. Loveday, *Britain and World Trade*, p. 95.

† *Post-War Unemployment*, Macmillan.

rationalize production. And, not least important is the fact that firms in a depressed industry find it difficult to raise the capital necessary for reconstruction.

We see, then, that the whole trend of events calls for a greater and greater capacity of adaptation and elasticity on the part of industry. The increasing fluidity of demand, the shift of demand from the heavy to the light industries, the termination of the era of expansion, the rapid advance of industrial technique—all these factors demand a greater responsiveness to change on the part of industry than ever before.

The factors, however, on the side of production, which are new in degree and in kind, are tending to make industry more and more rigid. We may distinguish two such factors of outstanding importance: (1) the loss of plasticity in wage rates, (2) the growth of mass production.

The loss of plasticity in wage rates is due, of course, to two post-war developments; the extension of the public regulation of wages and of unemployment insurance. As Professor Clay has pointed out, whereas before the war changes in wage rates in response to changes in the economic conditions of a trade or of industry as a whole were effected by collective bargaining in something like a quarter of the field of commercial employment, nowadays "we may safely conclude that there are few important gaps left in the provision for the settlement of wages by collective bargaining in Great Britain".*

This development of the public regulation of wages is due partly to the growth of the Trade Unions, which, in 1927, a representative post-war year, recorded a membership of 4,908,000.† Almost equally important, however, has been the extension of the direct intervention of the State through the instrumentality of Trade Boards. The Trade Boards (Minimum Wage) Act of 1909, it will be remembered, provided that in trades in which wages were "exceptionally low" minimum rates of wages should be settled by a joint body

* "The Public Regulation of Wages in Great Britain", *Economic Journal*, September, 1929.

† *Op. cit.*

composed of representatives of the workpeople and employers and impartial members nominated by the Government, such rates as minima to be compulsorily enforced by the appropriate Government Department. Thus before the War direct State intervention in the settlement of wages was confined to the sweated industries. In 1918, however, the scope of the machinery of the Trade Boards was considerably extended by an Amending Act which substituted for "exceptionally low wages", "the absence of adequate machinery for the effective regulation of wages" as the differentia of the trades to which the Acts might be applied. By 1925, no less than one-and-a-half million workers had their wages regulated by Trade Boards.*

Two other important developments in the public regulation of wages have also taken place. "A less revolutionary extension of Government activity was the approval given to the Whitley scheme of Joint Industrial Councils and assistance in the formation of such councils; as a result of which it was estimated three million were covered in 1925."†

Thus agriculture was the only important industry in which wage settlements were not on an organized basis; and this situation was remedied by the Agricultural Wages Board Act of 1924, which was a virtual extension of the Trade Board system to agriculture, and which brought the wage rates of a further 700,000 under authoritative control.

As a result of this extension in the public regulation of wages the workers as a whole have obtained greater control over the determination of wage rates. In the not infrequent adjustment of wage rates to changes in the demand for different kinds of labour, to changes in the prosperity of industry as a whole, and to changes in the price level, labour has been able to assert its will as never before. Professor Pigou contrasts the pre-war conditions with those prevailing in the post-war era in the following passage.

"Before the war there can be little doubt that wage rates in Great Britain were adjusted in a broad way to the conditions of demand and supply. . . . It would have been

* "The Public Regulation of Wages in Great Britain", *Economic Journal*, September, 1929.

† *Op. cit.*

generally agreed among economists that nearly the whole of the unemployment found among willing, able-bodied workpeople was due in one way or another to industrial fluctuation—general fluctuations to which changes in wage rates only responded slowly, and relative fluctuations as between different industries and different places, which necessitated a certain amount of lost time to people in passage from one job to another. . . . In the post-war period, however, there is strong reason to believe that an important change has taken place in this respect ; that . . . wage-rates have, over a wide area, been set at a level which is too high”*

The growth in the bargaining power of labour has been enhanced by another factor—the dole. Not that the dole has resulted in the refusal of available work. Its effect, in conjunction with the extension of the public regulation of wages, has been to contract the amount of work available, and to make the structure of industry more rigid.

The amount of work available has been contracted because, while the extension of the public control of wages has given the workers the power, the dole has often given them the inclination to maintain wages above the economic (i.e. the equilibrium) level. Thus the effect of the dole on the volume of employment is indirect. “ It influences wage rates by disinclining the representatives of the wage-earners to take the same account of unemployment as they did before relief was provided. For, in the first place, the unemployed are not an undisturbed mass of permanently unemployed workpeople, but a body the composition and membership of which is constantly changing. Hence the evil of unemployment is diffused, and there is a chance that intermittent employment at the higher wage will bring in as much as regular employment at a lower rate. In the second place the system of organized short time makes it possible to dovetail periods of wage earning with periods of unemployment relief.” †

The workers in a particular industry, however, may very well maintain their wage rates above the economic

* *Economic Journal*, September, 1927.

† Professor Clay, *Economic Journal*, September, 1929.

level without being aware of the fact and without suffering an appreciable contraction of employment in their particular occupation. This may happen in an industry, or more likely in a particular section of an industry, in which the demand for labour is inelastic. Suppose, for example, the transport workers were successful in maintaining their wage rates above the level which would have prevailed under perfectly free competition. Under these circumstances, the transport workers may experience little or no contraction in the volume of employment; for transport services are essential to all industries. The burden of unemployment and low wages would, therefore, be thrown on such groups of workers as the miners, the coal industry being exposed to foreign competition and to the competition of substitutes such as oil.

Thus the extension of the public regulation of wages does not necessarily put occupations upon an equality. "Rather its effect is to enhance the influence upon distribution of other factors making for inequality, more particularly of those elements of bargaining advantage that are inherent in the different nature of industries, but were obstructed or outweighed in the past by the greater influence of unequal union organization."*

Herein lies the explanation of the lack of correlation between the movement of wage rates and employment. Labour in the sheltered industries, in consequence of their better organization, is able to maintain wage rates in the face of falling prices and trade depression at little cost to themselves in the shape of unemployment. In the unsheltered industries, on the other hand, wages have either reached rock bottom or reduction of wages is felt to be impotent to aid the recovery of markets without the reduction of other costs. In the cotton industry, for example, the workers point out that the reduction of their wages, which form a small proportion of the total costs of the finished product, is in itself useless, that if the situation is to be improved the indirect costs must be reduced; that high loan charges, high transport and distribution costs must be scaled down if the industry is to recover ground from its competitors.

* Professor Clay, *Economic Journal*, September, 1929.

The way in which the extension of the public regulation of wages and of unemployment insurance has contributed to the rigidity of industry can now be seen. In the first place, these factors have rendered the old staple industries (i.e. coal, cotton, iron and steel, etc.) less adaptable to new conditions. For, as we have just remarked, the high cost of the services of the sheltered industries has intensified the depression in the unsheltered industries. Now, the deeper the basic industries have sunk into the slough of depression, the more intense has become the resistance to change and the more difficult it has been to raise the new capital necessary for reconstruction. As Sir Adam Nimmo has remarked, many amalgamations and marketing schemes have been wrecked through the fears of salaried officials for their livelihood or of shareholders for the loss of their capital.* And, clearly, the more drastic the schemes of reconstruction, the more will these fears be aroused. As regards the raising of capital for rationalization, the difficulties of the basic industries are notorious.

The rigidity of wages, however, in the face of falling prices,† has not only hampered the adaptation of the basic industries, but also the growth of the expanding industries. It is not merely that the public control of wages and the dole has resulted in a general wage level higher than the economic circumstances justify, and, thereby, in lessening the demand for labour in the contracting or stationary industries. The expanding industries have also been hampered, as the basic industries have been, by the high charges of the sheltered industries. Clearly, the level of transport charges, or the cost of building will have an important bearing on the development of the industries catering for an expanding demand.

Such, then, is the price which has been paid for the advantages gained by the public regulation of wages and unemployment insurance. Unemployment has been raised above

* Article in *The Times*, May 10th, 1934.

† Professor Bowley's index number of wages shows an advance of 94 per cent. over the pre-war level, while the cost of living as measured by the Ministry of Labour's index has risen 67 per cent. Since 1925 the trend of prices has been downward, but wages have remained practically stationary.

the level which would have prevailed in the absence of wage regulation and the dole. In addition to this direct loss to the community entailed by idle labour, there has been an indirect loss which is probably far greater. The comparative rigidity of wage rates by impairing the adaptive powers of industry has not only retarded the modernization of the basic industries, but also the expansion of the new industries upon which we must mainly depend for the absorption of the unemployed.

There are some authorities who contend that this price far outweighs the advantages gained. Indeed Professor Robbins asserts that the workers themselves would stand to gain by the freeing of wage rates from public regulation.* That may or may not be the case; the point that concerns us here is the practicability of a policy aiming at the curtailment of the bargaining power of the workers. Is there any likelihood of such a policy being accepted? Is the Conservative Party ever likely to face the electors with such measures as the abolition or substantial reduction of the dole, the abolition of the Trade Boards and the Agricultural Wages Boards, among the main planks in their programme? And if such measures are impracticable, the alternative is to persuade labour to surrender voluntarily its power over wage rates. But, as we have seen above, the workers who stand to gain by appropriate reduction in wage rates are not the workers whose wages would be cut. It would be necessary, therefore, to persuade the workers in the sheltered industries to undergo wage reductions in order to benefit the workers in the unsheltered industries! The labour leader who could perform this feat in the face of the most cherished dogma of his party—that a fall in wages in any one industry, by contracting the spending power of the masses, is injurious to the workers in other industries—would be an orator indeed!

It is useless, therefore, to argue the pros and cons of plastic and regulated wage rates; the comparatively free labour market of pre-war days has gone for ever. If the workers should ever lose the power over wage rates which they now possess, it will be to the State—Fascist or

* *The Great Depression.*

Communist. In shaping our economic policy for the future, therefore, we must accept the comparative rigidity of wage rates as an unalterable fact. It is this fact, indeed, in conjunction with the growth of large-scale production, which makes a return to unregulated capitalism impossible.

(2) *The growth of large scale production.* This factor has an obvious bearing on the elasticity of industry. In the first place, large-scale production requires a type of business organization which is relatively less adaptable to changing circumstances. When, as in the early part of the nineteenth century, business was on a relatively small scale, the capacity of industry to adapt itself to changes in technique and in demand was obviously far greater than to-day. In the one-man business or the partnership—the typical form of industrial organization of those days—flexibility is at its maximum. All important decisions are made by one man or, in the case of a partnership, three or four, who stand to reap the whole gain from their enterprise.

“The capitalist entrepreneur who supplied his own capital and management”, writes Professor Florence, “and paid himself by a profit was no doubt quick in making decisions and in adapting himself to his customers and to nature’s behests, and in many sorts of transactions, where the scale of organization is small and the markets he has to cope with tricky, he can still show characteristic enterprise and initiative. But in the joint stock company there is no individual entrepreneur and profits are distributed as dividends; hence there is no *prima facie* reason for expecting the same alertness to opportunity or unremitting supervision of detail . . .”*

Another important respect in which the small business is more flexible than the large is in the effecting of important changes in policy, there being no outside interests to be won over and reconciled. On the other hand, in the joint stock company—a type of organization which is essential to the aggregation of capital required for mass production—a host of interests, debenture holders, ordinary and preference

* *The Logic of Industrial Organization*, p. 151.

shareholders, salaried officials, have to be reconciled to any important departure from the normal policy. "In the large, highly capitalized and organized firm such as the joint stock company with specialized managers there are a variety of possibly conflicting interests (by which is meant persons with pecuniary inducements to behave in a certain way) ranging from that of the bankers and debenture holders requiring security of investment, through shareholders of various categories willing to bear risks (including promoters and financiers) to the specialized management and the routine labourers."*

Thus the adaptation of industrial organization to new conditions encounters resistances which were unknown in the heyday of the one-man business.

In the second place, the growth of mass production tends to render the supply of commodities inelastic, especially for a fall. That is to say, the supply of any commodity produced on mass production lines tends to be unresponsive to a fall in demand. This is due to the fact that under large-scale production overhead charges, which do not vary greatly with changes in output, tend to assume a greater and greater proportion of total costs. Now the greater the proportion of overhead to prime costs in an industry, the greater will be the resistance to a contraction of supply. Thus in the coal industry, for example, the response to a fall in the demand for coal resulted in a fierce competition for the available business—a competition which was disastrous to the owners, the miners and the creditors of the industry.

Thirdly, the growth of mass production makes for rigidity by increasing the reluctance of businesses to cut their losses. This increasing reluctance to cut losses is due to the fact that mass production implies the use of costly, specialized plant, the scrapping of which involves considerable sacrifice. In the face of a contracting market, therefore, a firm producing on a large scale will make every effort to avoid this sacrifice. Thus, when the basic industries were faced with the cessation of the war demand, the loss of markets due to expansion of capacity abroad, and post-war impoverishment,

* *The Logic of Industrial Organization*, p. 195.

they turned their activities to obtaining assistance from the banks and other creditors, or to forming agreements to maintain prices by restricting output.

Now both these expedients not only postponed the adjustments made necessary by changed conditions, but also made them more difficult to carry through. As Professor Clay has pointed out*: "In the spinning section of the cotton industry over £25,000,000 has been called up on shares with an unpaid liability in order to meet interest charges and trading losses; one-third of that sum applied to re-equipment and the development of new business would have met all the needs that the most ardent reorganizers have urged." Having spent this money to keep the old equipment in operation, it is obviously more difficult for the industry to raise further sums, in order to carry out the reorganization which eventually must be faced. Outside interests have also played their part in retarding reorganization. "In the industrial field instead of excess capacity being eliminated by the bankruptcy of the weaker producers, you have had a large number of firms kept in existence by creditors, particularly the banks, who always hope that trade will recover and that they will be able, by carrying their debtors a little longer, to secure repayment of the loans they have already made. This prevents a reduction of costs . . . "†

The other expedient adopted for avoiding the scrapping of redundant plant—the restriction of output—is even more inimical to the elasticity of industry. By maintaining an inflated level of prices for their products, these industries, in addition to postponing their own reorganization, hamper other industries and retard the recovery of business generally.

How important this factor of limiting output is in promoting the rigidity of industry it is difficult to estimate; for agreements for this purpose are often tacit. "In a situation", writes Mr. H. A. Marquand, "in which large numbers of the leading industrial producers find themselves

* *The World's Economic Crisis*, Allen & Unwin, p. 154.

† *Ibid.*

so placed that the nature of their capitalization deters them from a courageous policy of price cutting, the prevailing business ethic which we have already referred to as the 'sentiment against spoiling the market' will operate to prolong stagnation."* ↓

The capitalization of businesses to which Mr. Marquand refers calls for further comment, as it is the symptom of another tendency making for rigidity in industry. The optimistic and often reckless capitalization of businesses which has been a prominent feature of post-war finance is largely due to the increasing intensity of booms and slumps. Whether this increasing intensity of booms and slumps is a phenomenon due to transitory causes, or whether it is due to causes inherent in economic evolution, is doubtful. There is no doubt, however, that it is productive of certain factors which are inimical to the elasticity of industry. And not least important of these factors is the capitalization of business in periods of booming trade, which are the more optimistic and reckless in proportion to the activity and profitability of business.

It is, of course, a well-known fact that in times of booming trade, the company promoter finds a profitable field of activity in promoting amalgamations and extensions of businesses and in transforming private businesses into joint stock companies. Perhaps the most striking example of this phenomenon was the financial "reconstruction" of the cotton industry in 1919-20. Now "reconstructions" and extensions, when undertaken in periods of booming trade are usually overcapitalized, often recklessly, so that in the ensuing slump the forces which retard recovery are greatly strengthened. Prominent among these forces is the "sentiment against spoiling the market" referred to above—a sentiment which is fortified by the consciousness on the part of the heads of business that overhead charges have been increased by inflated capitalization.

In this policy of maintaining prices in a falling market, industry is powerfully supported by Finance. This point

* *The Dynamics of Industrial Combination* by H. A. Marquand, p. 95-6, Longmans, 1931.

is brought out by Professor Veblen in discussing the post-war situation in the United States. "An inflated capitalization", he writes, "has been kept intact as a whole, and has steadily been increased, and inflated market prices have been maintained without substantial abatement during these years, at the cost of persistent inaction in industry. . . . Whereas if those concerns which control the financial end of things had kept their hands off and let the inflated credit situation come to a head, a drastic liquidation of the country's business affairs would doubtless have gone into effect in due course and brought on an effectual retrenchment in capitalization and prices."* Professor Robbins is equally emphatic on this point.† And as we have already remarked above, the banking interests, which frequently hold a large share of the fixed interest-bearing securities of the firms in difficulties, support this policy of postponing liquidation in the hope that "things will improve".

The increase in the scale of production is also very largely responsible for another phenomenon of modern industry, namely overproduction—a phenomenon which has been so puzzling to amateur economists as to compel them to resort to a variety of far-fetched explanations. The causal connection between large-scale production and overproduction, in the sense of a supply of any particular commodity in excess of that which can be absorbed by the market at prices remunerative to producers, is brought out by Mr. B. F. Shields. "Before 1880 competition was not so intense. . . . Capital, especially fixed capital, was less important, so that there was less danger of heavy losses. With the widening of markets and the growth of large-scale production competition in many instances became wasteful. In the case of any large manufacturing or commercial industry in which the greater part of the overhead charges do not vary greatly with increased or decreased output, every increase in production means a reduction in the net cost per unit of the product. Accordingly efforts are made by competing firms to augment their output. This leads to

* *Absentee Ownership*, by Professor Veblen, p. 329.

† *The Great Depression*.

a decline in prices which sooner or later fall further than expenses."*

Such are the most important of the factors which are novel in degree and in kind and which, in the words of Sir Arthur Salter, "restrict and disturb the normal free adjustments" of the automatic system. In the next chapter we discuss the implications of these factors on the economic policy of the future.

* *The Evolution of Industrial Organization*, Sir Isaac Pitman, 1928, p. 534.

CHAPTER III

THE PLANNED PRICE ECONOMY : PLANNING UNDER CAPITALISM

THE main purpose of the first two chapters has been to show that a return to the Liberal capitalism of the pre-war era is impracticable. The march of public opinion, especially that of Labour, of social and economic organization and administration, and of industrial technique, compel us to seek a new economic policy which will harmonize our economic organization with these new elements.

Broadly speaking, we are confronted by two alternatives. Either we may aim at the complete supersession of the price economy by a planned economy in which production and consumption are planned by public authority. Or we may aim at a modified form of planning under which the main features of the price economy would be retained.

Which of these alternatives we favour will depend partly on practical considerations and partly on their respective merits. Let us take first the former issue, which may be stated thus. Is power in the present régime in the hands of a body of capitalists whose interests, or supposed interests, are opposed to the changes necessary to adapt the economic system to modern conditions? Or is the delay in making these adaptations due to the uncertainty of our rulers as to the right measures to take? * Only if we answer the former question in the affirmative, that is to say, if we accept the doctrine of the class-war, shall we consider a social revolution and a sharp break with the present economic organization as the *sine qua non* of economic and social progress. If, on the other hand, we accept the view that the present chaos benefits nobody and that personal power in the economic sphere passed away with the nineteenth century, the problem

* This issue has been admirably put by Mr. J. M. Keynes in a letter to the *New Statesman*, November 24th, 1934.

will present itself in quite another light. "The class war faction", writes Mr. Keynes, "believe that it is well known what ought to be done; that we are divided between the poor and good who would like to do it, and the rich and wicked who, for reasons of self-interest, wish to prevent it; that the wicked have power; and that a revolution is required to depose them from their seats. I view the matter otherwise. I think it extremely difficult to know what ought to be done; and extremely difficult for those who know (or think they know) to persuade others that they are right; though theories which are difficult and obscure when they are new and undigested, grow easier by the mere passage of time."*

Thus, if we adopt Mr. Keynes' view that the financiers, bankers and captains of industry have neither the will nor the power to prevent the reconstruction of our economic system, we need not consider that the overthrow of the price economy by revolution is the only alternative to the *status quo*. Assuming, then, that we are free to choose between an economy in which production and consumption are planned by public authorities or a modified form of planning under which the main features of the price economy would be retained, we are left to consider the respective merits of these alternatives.

Waiving for a moment the question whether such a system would work—a question which is discussed in the next chapter—let us consider briefly the advantages of the modified price economy over that of its alternative. Apart from the important fact that the building up of a planned price economy would involve less conflict and would therefore be attained with less destruction and dislocation, apart also from the fact that it would involve but negligible encroachments on individual liberty, the modified price economy would possess one positive merit of great importance over its rival. This merit would consist not in the construction of something new, but in the conservation of something old. It would consist in the retention, in large measure, of the most advantageous feature of the price economy.

* *New Statesman and Nation*, November 24th, 1934.

What feature of the price economy was it that was mainly responsible for its extraordinary powers of adaptability and expansion during the last 150 years? It is a feature which those who have had most experience in its working, as well as those who criticize it, have frequently overlooked, or at least under-estimated. As Sir Arthur Salter puts it: "Those who have made and worked this system have normally not understood it as a whole. . . . In the days of its greatest triumphs, and its scarcely challenged supremacy, no one realized how miraculous was the self-adjusting quality of this individualistic, competitive, free, unregulated, unplanned and unplanning system."* It is this "self-adjusting quality" which is the most characteristic feature of the price economy. To this feature more than any other we owe its great achievement; for by it the community was able to derive the advantage of the exercise by the ablest of its citizens engaged in industry of their unfettered initiative and enterprise. Indeed, it is no exaggeration to say that any economy which is to avoid the Scylla of rigidity and stagnation and the Charybdis of corruption must allow, in the words of Sir Arthur Salter, "the maximum scope for free adjustments and free enterprise†."

This generalization will be discussed further in the next chapter. There we shall see that there are strong reasons why an economy in which production and consumption are planned by public authority necessarily involves a degree of centralization which gives but meagre scope for "free adjustments and free enterprise". In this chapter we are concerned with the question, How far can this cardinal merit of the capitalist system be retained in the economy of the future? To what extent is it compatible with economic planning?

Our problem then is to discuss the possibilities of successfully constructing a planned price economy; an economy, that is to say, in which the price mechanism is not superseded, but supplemented by deliberate planning. Now in such an economy three different kinds of planning may be

* Sir Arthur Salter, *Recovery*, p. 13.

† *The Framework of an Ordered Society*, p. 26.

distinguished : (1) Planning operated mainly from below, (2) Planning from above, (3) Planning which springs initially from above, but which is administered independently of the State by *ad hoc* bodies. Let us take each of these types in turn and analyse their possibilities.

Planning from below may be defined as the co-operation of producers in a particular industry to deal with the problems which, while being common to the industry, fall outside the scope of the individual firm. The need for such co-operation has long been recognized in those industries in which such problems are peculiarly urgent. Indeed, it is a matter of pretty general agreement among the leaders of the basic industries that many of the maladjustments of modern industry could be eliminated and much constructive work promoting efficiency could be effected, if certain important matters in which all members of an industry are interested were not left as at present either unattended to, or to be dealt with by inadequate machinery. Prominent among such matters are redundant plant, research, marketing, bulk purchase, and hours and conditions of work.

The most urgent of these matters are redundant plant and marketing. Let us take first the problem of redundant plant. This problem has become urgent in the basic industries, partly because of the various factors which we discussed in Chapter II, such as technological progress, the growth of capacity abroad, and the fundamental changes in the character of demand, partly because of the inflexibility of the large-scale business unit. The inflexibility of the business unit, especially in the face of a contracting market, is one of the main reasons which make the need for unified action so urgent in the basic industries.

The problem of dealing with redundant and inefficient plant is, of course, by no means new to industry. Thus we find an experienced witness giving evidence on the output pools organized by the furniture-making trade before the Commission on Trusts appointed in 1919 in the following terms : " It was a law of progress that the inefficient should go, but in practice progress was impeded because he would not go, so instead of trying to kill him they had decided it was

better to pension him off, since that cost far less. If the inefficient man, who struggled to do 3 per cent. of the trade, likes to content himself with $1\frac{1}{2}$ per cent. or none at all, the difference goes to the more efficient man, who, working more economically, can well afford to pay into the pool from which the inefficient man can draw compensation."* This opinion finds endorsement in the statement of Sir Adam Nimmo that "Killing the adversary costs far more. Spread over a period of years the obligations so incurred (i.e. in compensating him) would not be burdensome."†

Several reasons go to explain why business units, whose independent existence are not justified by the conditions of the market, are able to resist elimination, or even amalgamation. As Professor Florence remarks: "There is usually a willingness on the part of the group of buyers which constitute a firm's clientèle to pay, if necessary, something extra in order to obtain the goods from a particular firm rather than from any other. This pocketing of a clientèle can be achieved even by a trade mark or a doctor's practice and will outlive the changing of the actual producer, so that the customer's custom can actually be bought and sold in the form of goodwill. Moreover, if there were any tendency for the consumer to desert his original but more expensive producer, that producer . . . would be likely to cut prices to meet the new competition. Hence the (cheap) large-scale producer would have an uphill fight to dispose of his additional product; and the increased marketing costs necessitated might soon affect his decreased producing costs."‡

Thus the irrational loyalty and the inertia of the consumer tend to make the cost of displacing or absorbing the inefficient producer so high that the progress of the efficient firms is greatly impeded. And modern conditions are enhancing this tendency. "The normal method of defeating inefficient producers under the system of full-blooded competition was to bankrupt them. . . . But technical and

* *The Report on Trusts in British Industry*, Cmd., 9,236, 1919, p. 3.

† *The Times*, May 10th, 1934.

‡ *The Logic of Industrial Organization*, pp. 81-2.

financial conditions such as the difficulty of new firms securing the expensive plant needed for optimum efficiency have latterly slowed down this process of replacement. . . . Cut-throat price cutting during a war between firms with high-fixed costs may have to proceed to a level below that of the prime costs even of the more efficient firm, and for a considerable time after the war may involve spoiling the market.”*

Another factor tending to keep alive the relatively inefficient producer is the number of interests which find it to their advantage to prevent his extinction. Thus “Many amalgamations have been wrecked through the fears of salaried officials for their livelihood and of shareholders for the loss of their capital.”† The middleman, too, has often considered it to his interest to keep industrial units apart and has used his influence, which is sometimes considerable, to foster disunion among them.

To facilitate the elimination of redundant plant and the promotion of suitable amalgamations is the first important objective of the unification of industries. A scarcely less important objective is the promotion of co-operative marketing. The need for some form of co-operative marketing in industries producing commodities in bulk is due to the fact that the optimum scale for marketing is usually larger than that for the technique or management of production.‡ “I cannot imagine any sphere”, writes Sir Adam Nimmo, “in which greater financial advantages could be secured under a co-ordinated system of control than in this. Export trade under present world conditions is in too many hands. The efforts of export merchants are unregulated and lack direction and concentration. Their place should be within the co-ordinated plan for each industry. Each industry should move towards the control and co-ordination of its export trade as the common possession of the whole. By combined effort it could better develop a marketing policy adequate to meet the international forces ranged against it.”§

* *The Logic of Industrial Organization*, p. 83.

† Sir Adam Nimmo, *The Times*, May 10th, 1934.

‡ *The Structure of Competitive Industry*, by E. A. G. Robinson, p. 82.

§ *The Times*, May 10th, 1934.

One solution of the problems we have been discussing would be to set up for each industry a monopoly in the form of a public or semi-public corporation. The matters referred to above could then be dealt with by the appropriate department of the Corporation. But while such a Corporation would obviate the need for new co-ordinating machinery in the industries in which they were set up, and would secure other important advantages, there are obvious objections to such a solution. It is generally recognized that in such industries as coal, iron, steel and cotton, etc., the joint stock company is the most efficient type of organization for conducting productive operations. It is, in fact, the best compromise between complete centralization and the one man business or partnership; for it combines the advantages of large-scale organization with that of decentralization of control.

How then is the main defect of the joint stock company organization of an industry to be overcome?—the defect, namely, that there are important matters with which no one company is competent to deal. This defect has, of course, long been recognized, as the growth of associations to deal with some of these matters testifies. Thus several industries have set up research associations, publicity and propaganda associations, export associations, joint undertakings for bulk purchase, and even associations to deal with surplus capacity, such as the Woolcombers' Mutual Association Ltd. and National Shipbuilders' Securities Ltd.

This development, however, of setting up *ad hoc* associations to deal with matters outside the scope of individual firms has suffered from two important defects. In the first place: "Many leaders of industry find themselves on so many committees that they complain of having insufficient time for their jobs, and yet much co-ordinative work is not done."* Secondly, many of these associations lack the power necessary for the efficient performance of their functions. They cannot coerce a recalcitrant minority, or impose a levy on all firms for activities which are in the common interest. In a word, they lack the authority to impose a common

* *The Times*, March 16th, 1934.

policy on the industry they represent—an authority which statutory powers only can confer.

The solution would seem to be in the compulsory unification of those industries in which unified action is a prime consideration. This would necessitate the setting up of a constitution for each industry. These constitutions would, of course, vary from industry to industry according to their needs and circumstances.

To generalize about these industrial constitutions is not very helpful. Some idea of the possibility of progress along these lines, however, may be gauged from the constitutions which have already been set up. That of the coal industry is the most complicated. It is based on the federal principal. Each district has constructed its own District Scheme to deal with the regulation of production and prices, the transfer of quotas, commercial policy, etc. Superimposed upon the District Schemes is a Central Scheme which stands at the head of the whole system. The Central Scheme is administered by the Central Council, which is elected by the District Boards. Besides regulating production as between districts, co-ordinating district prices, and acting as arbitrator, the Central Council, in co-operation with the Districts, draws up plans every quarter for the future production of coal, thereby "introducing a large degree of economic planning into the whole administration of the industry".*

The constitution of the coal industry, however, not only provides machinery for the unified operation of the industry, but also for the planning of its organization. This latter task is the function of the Coal Mines Reorganization Commission. The type of structure which the Commission is aiming to set up is that of a two-storey building, the ground floor of which is to consist of total amalgamation, the upper storey of partial amalgamation. The total amalgamations are designed to bring the operating units, by means of financial mergers, to the size which is optimum for productive efficiency. Partial amalgamations, on the other hand, are designed to associate the operating units over wide areas for

* Mr. Neuman, *Economic Organization of the British Coal Industry*, p. 386.

the purpose of controlling the development of such areas, the promotion of co-ordinated selling and concentration of production.

The constitution, however, of those agricultural industries which organize themselves under the Agricultural Marketing Acts are distinguished by important differences from the constitution for coal. In the first place, producers under the Marketing Schemes are not organized on a federal basis. The schemes are operated by national boards elected directly by producers. Secondly, the task of reconstruction is not undertaken by an extraneous body like the Coal Mines Reorganization Commission. It is undertaken by the producers themselves, either by the Marketing Board or, as in the case of the bacon-pig industry, by a special Development Board.

It is not suggested that this policy is applicable to all industries. Its application would be confined mainly to such industries as coal, iron and steel, cotton and agriculture, that is to say to industries producing commodities in bulk. Industries producing specialities are not confronted with similar problems. They do not experience the same need for unification.

Enough has been said to indicate what is meant by planning from below. In Part II we shall deal in some detail with what has already been done in this direction in coal, electricity, and in several of the agricultural industries.

It will be noticed that the type of planning we have been discussing does not call for any important extension of the function of the State. The State needs to do little more than pass enabling legislation and to supply that expertise which only it can command. There are problems, however, which fall outside the scope of planning from below; and this brings us to our second type of planning—planning from above.

The planning activities from above in the planned price economy would not, of course, be nearly so complex or detailed as in the Russian type of planned economy. There would be no Planning Commission, the business of which in the latter type of economy would be, as Mrs. Wootton tells us, "to determine what factories should be built, what

pits closed, what wages paid in this and that trade, and what prices charged for such and such goods"*; or "to plan for so many million tons of coal and so many million tons of potatoes . . . because they (the planners) have quite arbitrarily chosen these exact figures for no better reason than that one must in the end choose some figure or another."†

That there would be no Planning Commission with such comprehensive powers in the planned price economy would, of course, involve certain disadvantages. Perhaps the greatest of these is the fact that the most remarkable feature of the Russian economy—the planning of *consumption*—could not be incorporated in the system; for the planning of consumption enormously simplifies the economic problem. It obviates all the difficulties which arise in consequence of the vagaries of consumers' demand. As Professor Sargent Florence puts it: "So much of a series of articles is planned to be consumed and just so much is produced. Precisely those articles which can be produced economically in large quantities can be planned to be consumed and large scale production and operation can be carried on with no fear of loss by lack of sales."‡

As the planning of consumption is clearly incompatible with a price economy, these great advantages would have to be foregone. The consumer would be left, within the limitations of modern economic conditions, to call the tune to production—a privilege which he may not be sorry to retain. This does not mean, however, as some writers assume, that planning activities from above must necessarily be confined to negative action, even under the further limiting condition—the private ownership of the means of production.

What planning activities, then, could the State undertake in an economy in which consumers' demand is left uncontrolled and in which the means of production are, in the main, private property?

Such activities as come within the scope of the central planning authorities fall under two main heads. First

* *Plan or No Plan*, p. 308.

† *Ibid.*, p. 324.

‡ *The Logic of Industrial Organization*, p. 51.

and foremost, they would be concerned with those decisions which determine the tempo of industrial activity throughout the country, namely, the decisions which relate to credit and investment. Secondly, they would be concerned with controlling and guiding the economic development of the country.

Undoubtedly, this first category of decisions is the most important task which the State must tackle. The experts, it is true, are by no means in agreement as to the correct principles of Investment and credit control, so that the State will have to proceed cautiously and tentatively in dealing with this problem. They do agree, however, that Investment and credit control is the key to the elimination of the alternating booms and slumps which above all other factors are responsible for economic dislocation. Moreover, the great world depression has taught us much ; and, upon the basis of this experience, which has shown up many serious errors of policy in the pre-slump period, the State, in conjunction with the City, should be able to do much to maintain industry on an even keel. As regards the power of the State to influence credit conditions there can be no dispute : the large operations on the money market by the Treasury, the Exchange Equalization Fund, the power to control foreign issues—these are all powerful weapons for the control of credit and, therefore, of the tempo of industrial activity.

Under the second heading, also, important planning activities are appropriate to the central planning authorities. The control of the economic development of the country involves two aspects—the guiding of savings into the appropriate channels for investment and the control of the location of industry. As regards the first aspect, there is pretty general agreement as to the necessity for supplementing the present system of Investment. As Professor Sargent Florence has pointed out, " it has become increasingly difficult to attract it (i.e. capital) into the channels most likely to be efficient. Here the obstacles to rational organization are the investors' ignorance and the strong economic incentive offered to the company promoters' dishonesty. . . . The obstacles to the provision of industrial capital . . . from the

private investor have proved so formidable in recent years that the participation of the government has been proposed at various points."* It has been proposed that the Government, in addition to enforcing the publication of more detailed accounts, should "give guarantees of at least a minimum interest. In place of guinea-pig directors there might even be substituted publicly appointed directors who would combine vigilance over investors' interests with business intelligence. . . . And if guarantees are given for Investment in some directions, in other directions it might be censored altogether."†

The State can also do much to plan industrial development by co-operating with public or semi-public corporations. Indeed, much has already been done in the last few years through the instrumentality of the B.I.D.—a body which came into existence through the co-operation of the Government and the Bank of England. It was the backing of the B.I.D. which made possible the formation of the Lancashire Cotton Corporation. Many of the important rationalization schemes which have been effected in iron and steel materialized through its support. Moreover, the State will acquire power to influence the development of the various industries as and when they organize themselves along the lines of coal and agriculture. Indeed this power has already been exercised in the case of coal, agriculture and iron and steel. For the State, in virtue of its power to grant or withhold important privileges, can bring strong pressure to bear on any organized industry whose development it wishes to control.

In the second aspect of the control of economic development—the location of industry—there is also considerable scope for planning from the centre. The growth of industry in the south of England, for example, should clearly be subjected to control, from the point of view both of preserving amenities and of economic efficiency. The encouragement of new industries in the declining industrial areas is another opportunity for planning. Such activities conducted in

* *The Logic of Industrial Organization*, p. 193.

† *Ibid.*, p. 193.

conjunction with the representative bodies of the various industries and with the local planning authorities* would do much to promote co-ordinated industrial development.

Finally, there is a third type of planning—planning which springs initially from above but which is conducted independently of the centre by *ad hoc* bodies. Two eminent examples of such planning are the Central Electricity Board and the London Passenger Transport Board. A consideration of this type of planning is postponed until Chapters VII and VIII, when the work of the Electricity Commissioners and the Central Electricity Board is dealt with in some detail.

These three types of planning activities, conducted with energy, would bring the economic life of the community under a large degree of conscious control. The benefits of such control would be twofold. In the first place, it would promote the efficient use of the nation's economic resources. This would be the work mainly of the first and third type of planning. For such planning would provide for the performance of those functions which are at present not performed at all or, if they are performed, by bodies quite unsuitable for the purpose; it would also provide for the formation of *ad hoc* Public Corporations for the running of those industries whose efficient administration depends on a monopolistic organization.

In the second place the conscious control of the nation's economic life on the lines described above would promote an end no less important than that of efficiency—the lessening of the greatest economic evil with which this country is afflicted—the irregularity of industry. This indeed must be the prime objective of all economic planning. If those who speak on this problem with most authority are right in their diagnosis, then this objective will be attained through the wise control of Credit and Investment—a function which obviously falls within the sphere of the central planning authorities.

In order that we may obtain a clearer idea of what is meant by planning in a price economy, we conclude this

* Set up under the Town and Country Planning Acts.

chapter with a brief discussion of the definition of planning.

Where are we to draw the line between the economic activities of the community which are unplanned and those which are planned? Does rationalization, for example, constitute planning, or the formation of amalgamations? The answer is that it depends upon who promotes amalgamations or rationalization. The rationalization, for example, of the soap industry carried out by Lord Leverhulme was not, in our sense, "planning", but that promoted by the Coal Mines Reorganization Commission is.

This distinction between planned and unplanned activity is not arbitrary. In a sense, of course, all or nearly all economic activities are planned. If a business man decides to extend his plant, to employ more labour, to accept or to give a particular contract, or to amalgamate with another firm—in making any of these decisions he is, in the everyday sense of the term, planning. He is planning his organization and his production to meet the future requirements of the market. All entrepreneurs plan, in the sense that they take deliberate steps to co-ordinate and control their businesses to the best advantage that their ability and their knowledge permit. This kind of planning, however, is the response of business men to the normal incentives of the economic environment. "Planning", in our sense, begins only at the point where these incentives cease to operate. In the example given above the formation of Lever Brothers was not "planning", because it was the response of the business men concerned to the incentives of the economic environment. On the other hand, amalgamations promoted by the Coal Mines Reorganization Commissions are planned, because the normal economic incentives have here been supplemented by a body other than the firms concerned in the amalgamations.

Thus "planning" in a capitalist economy may be defined as the supplementing of the price mechanism of the capitalist system by some body or bodies whose function it is, not to interfere with economic forces, but to strengthen them, either by removing obstacles which obstruct their operation, or by undertaking constructive tasks which are beyond the

scope of the individual firm. Such a body may be composed of representatives of the industry with which it is concerned, such as the Milk Marketing Board ; or it may be a body of experts nominated by the State, such as the Coal Mines Reorganization Commission. Again, it may be a body concerned with one particular industry, such as both the bodies mentioned above ; or it may be a body with a wider jurisdiction, as a National Investment Board would be.

Planning, then, consists in supplementing the capitalist system by bodies, the scope of whose decisions are wider than those of the individual units of which that system is composed. " In every economic system ", writes Mrs. Barbara Wootton, " deliberate decisions are made by individuals and groups, and the big picture revealed by the statistician and the economist is the aggregated result of these decisions. . . . The basic difference between the planned and the unplanned economy is . . . that the scope of particular decisions is there more narrowly limited."*

In Mrs. Wootton's opinion, however, an economy does not become a really planned economy until the scope of particular decisions has become state-wide—that planning necessarily involves the setting up of some central planning body with power to dictate the production programme that the various industries must undertake. " The distinguishing feature of the price economy is . . . that it knows no such general plan (as the planned economy), that while the area over which particular wills have control varies enormously, yet it always stops short of the point at which the whole may be said to be willed. . . ."† We here encounter the view that the planning we have discussed in this chapter is not planning at all, that planning in the real sense of the word can only be undertaken in a community in which the means of production are collectively owned. A discussion of this view forms the topic of the next chapter.

Under this modified form of planning the present economic system would be supplemented step by step at the points where the economic forces making for equilibrium are

* *Plan or No Plan*, p. 48.

† *Ibid.*, p. 48.

obstructed. The ultimate form of the economy which would thus be built up it is impossible to predict; experience alone can determine how far the best features of the price economy could be incorporated into an economy in which the major outlines are subjected to conscious control. It would be very largely a policy of trial and error and experiment, under the guidance of certain leading principles.

CHAPTER IV

THE CRITICS OF PLANNING

Of the three possible points of view on economic policy, two are equally emphatic in asserting that in a capitalist community (a community, that is to say, in which the means of production are in the main privately owned) measures of planning are inevitably doomed to failure. What are the grounds for believing that the policy outlined in the last chapter must fail of its purpose? This policy, it will be remembered, would leave the more detailed work of planning in each industry—the adaptation of productive capacity to demand, the development of the industry as a whole, the control, in varying degrees according to its special circumstances, of its production, marketing, and so on—to organizations representative of the producers of the industry. The functions of the various organs of the State, on the other hand, would be confined, mainly, to broader issues, the ultimate regulation of producers' organizations, the decisions which determine the general tempo of industrial activity, the control of Investment and of economic development generally. Finally, a not unimportant sphere of planning would fall to *ad hoc* public corporations, such as the Central Electricity Board and the London Passenger Transport Board.

The first objection that must be met is that an economy in which planning powers are conferred on producers would produce "a community more planned against than planning".* For "a general plan that is built up from the partial plans made by sectional groups in the pursuit of their own interest can at best represent an unstable compromise between the competing designs of units, each of which inevitably puts its own advantage first and that of the general public only a poor second. So long as the instruments of production and the products thereof are the property of private persons interested

* Mrs. Barbara Wootton, *Plan or No Plan*, Gollancz.

in the financial results of operating those instruments and selling those products, the major economic decisions must be made firm by firm, or industry by industry, in accordance with the view taken by those persons of the course most advantageous to their own industry or firm. . . . The output of steel will be planned to make a paradise for the steel plants, the output of beer will be planned to make a brewers' paradise, the output of pictures will be planned to make heaven on earth for the artists."*

We have here two points to consider. In the first place, we have to ask—What production policy is an organized industry likely to pursue? Is it likely to enforce on its members a low output in relation to existing plant, or will it endeavour to keep the industry working to capacity? Secondly, we have to ask—What attitude is an organized industry likely to take to the entry of new producers?

An organized industry, we are told, would pursue a restrictive policy under both heads. As regards the second head, it is, of course, true enough that an industry regards new competitors with hostility. It is equally certain that an industry endowed with the unlimited power to control their entry would abuse it. But there is no suggestion that such powers would be granted. The utmost that could be conceded to industrial self-government in this respect is that an industry should be allowed to draw up rules with which new competitors must comply, subject to the safeguard that these rules should be ratified by the Board of Trade; just as Marketing Schemes under the Agricultural Marketing Acts are submitted for approval to the Ministry of Agriculture.

What attitude should we expect an organized industry to take as regards existing productive capacity? Would it plan its production so as "to make a paradise" for the producer, in the sense, presumably, of unduly restricting the production of its members in order to push prices above the economic level? Recent experiments do not show that this is always or even usually the case. In the coal industry for example, the Government again and again has had to bring pressure to bear on the coal owners to make the

* *Plan or No Plan*, p. 320.

provisions of the schemes as regards the restriction of output effective. Nor are the reasons why the coal owners have been so reluctant to restrict output peculiar to the coal industry; they are applicable to most industries, especially those in which production is on a large scale. If they were not, the situation which Mrs. Wootton envisages as a result of planning of production by the industries themselves—a situation in which the community would be more planned against than planning—would already be largely realized. For, as no less an authority than Mr. A. Loveday has pointed out, "the most important single characteristic of modern business" is the control of output and of prices by one means or another—whether by mergers, associations, cartels, gentlemen's agreements, or still less precise understandings. In one country or another almost every article of common use is produced under conditions of eliminated competition."* But, on the whole, we do not find that this power of the producer to control production and prices has been seriously abused. On the contrary, in many instances the producer has had to take concerted action in order to prevent prices falling below a remunerative level. What is the explanation of this paradox? Why, when the coal owners were given statutory power to limit output and impose minimum prices, were they not only guiltless of abusing these powers, but were even reluctant to put them into force?

The explanation is to be found in two important tendencies of modern industry. The first of these tendencies is the increasing proportion of overhead costs in the price of those commodities produced on a large scale. In every large-scale firm a large proportion of its expenses are relatively fixed; the volume of its output affects them but a little. Hence it is a prime consideration in such firms to maintain a high volume of output so as to spread their overheads over as large a number of units as possible. The nearer to capacity the plant is worked, the lower the cost of each unit.

Now under modern conditions, an industry often finds a large output with low costs per unit more profitable than

* *Britain and World Trade*, p. 98.

a smaller output with higher unit costs. This is due to a second tendency in modern industry, the tendency for the demand for commodities and services to become more and more elastic. Most industries find that a relatively small change in the prices of their product has a much greater effect on demand to-day than it had fifty or even twenty years ago. As Mr. Loveday puts it: "A new economy is thus evolving under which competition between individual producers of similar articles is gradually diminishing and competition between alternative and quite distinct commodities is becoming more and more acute. Advertisement by competing industries is gradually replacing advertisement by individual firms."*

The explanation of this tendency is to be found, of course, in the advance of industrial technique. To take the most obvious example, thirty years ago there was virtually only one source of mechanical power—coal; there was no substitute for steam power. Hence the coal industry and the railways possessed a powerful strategic position. How powerful that position was in the case of the railways is well illustrated by the elaborate legislation passed from the time the main lines were constructed down to 1914. The rise, however, of the internal combustion engines revolutionized the situation. Since the war the railways, far from occupying a monopolistic position, have had to fight a keen competitive battle with road transport. And similarly with the respective motive powers of these two modes of transport. The bargaining strength of the coal industry has been very much weakened by oil, the importance of which is due to the internal combustion engine. In short, technical progress is constantly placing at man's disposal new processes and new materials (or what virtually amounts to the same thing, materials already in use at a substantially lower cost), so that his dependence on any particular commodity is tending to become less and less.

Thus an industry which is organized to plan its own production programme would not necessarily find it

* *Britain and World Trade*, p. 99.

advantageous to pursue a restrictionist policy. Not only, as we have just seen, would an industry have to fear the competition of industries producing commodities which could be substituted in a greater or less degree for its own, but also to reckon with the fact that most of its constituent units—and especially the most up to date, the highly capitalized units—would find it advantageous to maintain a high volume of output. For the nearer to capacity a firm works the lower is the cost per unit of the article it produces; and the larger the volume of its sales the smaller the margin of profit on each unit it can afford to accept. Thus an industry which adopted a restrictionist policy is likely to find that the higher price which it could thus extort from the consumers would be offset, firstly, by the tendency for a lower volume of output to raise unit costs, and, secondly, by the cutting into its markets of commodities which could be substituted for its own.

It is not proposed, however, that these economic forces should be the sole safeguard of the consumer. For some industries to whom it may be found expedient to grant a measure of self-government enjoy a greater hold over their markets than others. The demand for their products may not be sufficiently elastic to deter producers from exploiting the power which organization would give them. It would be necessary, therefore, for the State to supervise the output policy of each organized industry, as well as its policy as regards new competitors. And here, too, the State would have adequate power to impose its views. It could, without proceeding to positive action, make most industries toe the line by threatening to lower a tariff, to withdraw a restriction of imports, or to stimulate the production of a competing commodity. And, in the last resort, it could abrogate or drastically amend the constitution of an offending industry.

Thus the objections to a policy of granting to industry a measure of self-government are found to be not insuperable. An economy in which the important industries enjoyed considerable powers over their programmes of production would not necessarily produce a community

"more planned against than planning". The economies of large-scale production, the competition between substitutable commodities, and the vigilance of the appropriate Government Departments, together with the influence of public opinion, should prove sufficiently powerful to counteract the centrifugal forces in industry.

So much for the problem of planning from below! As regards planning from above in a capitalist economy, the objections are of an even more fundamental nature. For, it is contended, a Government "which does not have the disposal of the instruments of production and of the product of industry under its control will, in effect, have to confine itself to planning of a negative and obstructive type. . . . It may fix maximum or minimum prices for milk or meat or metals, or schedule this area for dwelling-houses and that for factories, but it is quite unable to make two blades of grass grow where only one was before, or to add so much as four legs of mutton to the output of meat, or even to erect a single factory on the sites that it has prescribed for industrial production. It can forbid a man to let the premises that he owns for the sale of fish and chips, but so long as he does own these premises it is unable . . . to order him to use them for that purpose, or to lay down the exact number of haddocks and live eels that he is to offer for sale therein."* Thus, concludes Mrs. Wootton: "So long as the instruments of production and the products thereof are the property of private persons . . . the major economic decisions must be made firm by firm, or industry by industry, in accordance with the view taken by those persons of the course most advantageous to their own industry or firm."†

Now it is, of course, indisputable that so long as a firm is, in any real sense, the property of the people who ultimately direct it, it cannot be subjected to the positive control of a central planning authority. It would, of course, be incompatible with the principle of private enterprise for the Ministry of Agriculture to issue a decree

* *Plan or No Plan*, p. 320.

† *Op. cit.*, p. 320.

directing farmers to increase their output of milk by a certain percentage, or to issue positive orders concerning the methods of production. In that sense it is a truism to assert that a central planning authority would be "quite unable to make two blades of grass grow where only one was before, or to add so much as four legs of mutton to the output of meat, or even to erect a single factory on the sites that it has prescribed for industrial production."

More could be done in this direction, however, than this statement implies. Something approaching the power to do these things may be given to *ad hoc* boards. As we shall see in the chapter on the Pig Scheme, such powers have actually been given to the Pig Development Board. This Board, which may well be the forerunner of many similar Boards, possesses the power not only to close bacon factories which it considers inefficient or redundant, but also to prescribe the methods of production, and even to build new factories with a view to planning the bacon curing industry on national lines. Planning authorities such as the Pig Development Board or the Coal Mines Reorganization Commission may quite reasonably be expected to make two blades of grass grow where only one grew before. But our criticism goes deeper than this; it questions the basis of the whole argument. It denies that the "major economic decisions" consist in the decisions of individual firms as to their production programmes or their methods of production. These decisions are decisions of detail, not of high policy.

What, then, are the major economic decisions? Surely they are those which determine the whole tempo of industrial activity and which influence the nature of future development and of demand. The major economic decisions are made not at Middlesbrough or Oldham, at Newcastle or on the Clyde, but in Threadneedle Street, in Lombard Street, and in Whitehall. It is the decisions of the Bank of England on bank rate policy and on open market dealings, the decisions of the Big Five as to the use of the funds at their disposal, the attitude of the "Issuing Houses" to the new enterprises that are being contemplated by the industrialists and the

company promoters. The economic decisions of the greatest import, however, emanate from the Treasury. For the power and prestige of the Treasury enable it to influence the important decisions of High Finance to an important degree. This influence it exerts partly in a direct manner by placing semi-official or official bans on particular financial operations, by offering financial assistance to schemes of reconstruction, or by its collaboration with the Bank of England ; and partly in an indirect manner by the operations it conducts in its own important sphere. The control of Public Finance, the operation of the Exchange Equalization Fund, the control of public work schemes—these activities of the Treasury play an important part in determining the tempo and even the direction of the economic activities of the community. It is these decisions which are the "major economic decisions" ; for they determine, so far as human volition can determine, the major factors by which the individual firms of the various industries regulate their activity.

Thus the fact that under private enterprise the central planning authorities could not dictate to producers what and how much they shall produce, does not render planning from above and the private ownership of the means of production incompatible. For while producers would be free to determine their own production and investment programmes, according to their view of the conditions of the market, these very conditions of the market can be, and are to a considerable extent, influenced by operations from the centre.

Thus private ownership of the means of production is not incompatible with planning. In the first place, as we have seen, the play of economic forces, together with supervisory control on the part of the Government, would obviate the abuse of the powers which the unification of an industry would confer on it. In the second place, the fact that under private enterprise the Central Planning Authorities could not give positive orders to producers does not mean that constructive planning from the centre would be rendered impossible. For the major economic decisions are not made by producers. Broadly speaking, it is true to say that the

decisions of the producers are largely automatic responses to the indices of the market. If the central planning authorities can control these indices, within the limits, of course, set by economic forces, they can afford to allow producers the power which they at present possess to determine their own production programmes.

Let us take another important issue. The advocates of planning are constantly pointing out, and quite rightly pointing out, that much of the post-war economic development in Britain has been haphazard, needlessly destructive of amenities, and economically wasteful. This surely is one of the important issues on which "planners" base their case. But here again the remedy does not necessarily involve abolition of private property in the means of production. It would only be necessary to proceed further along the lines of the Town and Country Planning Act of 1932 for the whole country to be mapped out into residential areas, industrial areas, and agricultural and amenity areas. As regards planning the location of particular industries, the Industrial Boards which it is proposed to set up, would act in conjunction with the Central Planning authority, which would regulate the setting up of factories, etc., by the issue of licences. This latter body would, of course, be guided by the national survey which, in conjunction with the Local Authorities, it would have carried out.

So far our argument in this chapter has been a defensive one. We have been concerned to show that a policy of supplementing a capitalist economy by constructive planning measures is a practical policy. Constructive planning and the private ownership of the means of production are not incompatible. We now proceed to a positive justification of this policy by suggesting the advantages which a planned price economy would have over the collectivist economy.

These advantages may be traced to one source. As was pointed out in the last chapter, the planned price economy would in large measure conserve the cardinal quality of the capitalist system—its "self-adjusting quality", whereby the maximum scope is given for "free adjustments and free enterprise". The planned collectivized economy, on the

other hand, would necessarily sacrifice this quality, involving as it would a high degree of centralization. For the collectivization of industry would mean the substitution of the entrepreneur by a public functionary. In public utility industries and in industries concerned with standardized products this need not be a fundamental drawback. Indeed, the advantages of centralized control may often outweigh the loss of flexibility. But what of commerce, of industries, such as coal, in which productive conditions are diverse, of the industries producing quality goods? For the functionary, acting, as he necessarily would be, under instructions from above, would be precluded from doing anything he could not defend or explain. If he were not, and if the ordinary precautions of accountability were relaxed, the opportunity of lucrative speculation would attract dishonest people into the service, and no safeguard could be devised to keep them out. Thus he would be unable to exercise his discretion, as the private trader can, in making judicious concessions to individuals, in taking risks of loss, and in compromising liabilities.

The injurious consequences of the restraint which pecuniary accountability would impose are, as Mr. Hawtrey points out, largely due to human psychology. The practical judgment, upon which many of the most important business decisions are made, is partly subconscious; all the factors which determine it do not enter the realm of consciousness. A man may feel confident that a particular judgment is correct without being able to formulate, even in his own mind, the reasons for being so. And, in so far as the practical judgment is conscious, its mental processes are not always linguistic. There is thus a tendency for any official hierarchy to be limited to those decisions that can be readily communicated in language from one functionary to another. Enterprise and originality are at a discount.*

It is for this reason that collectivized production is at a serious disadvantage in those cases in which the specification and grading of the product are matters rather of judgment

* *The Economic Problem*. Chapter "Collectivism". The argument above is almost entirely indebted to this original and stimulating book.

than of rule ; that is to say, over a very large part of industry. " The question is ", writes Mr. Hawtrey, " how far the product suits the purchaser, who may be either an ultimate consumer or a producer." In either case the collectivised industry is at a serious disadvantage. " In a collectivist state the producer will have just cause of complaint if he is supplied with defective materials. But if he has either to refuse to accept them, or having accepted them, to excuse the consequent defects in his own product, he must be able to state his criticisms in a definite form. The grading of the materials by an inspector is not a solution, because we are concerned with materials too varied and too individual to be regularly graded. Wool is sold by auction because, unlike cotton, it cannot be systematically graded. But the difficulty of grading arises more generally with half finished products. Hence the selection of materials is likely to be less perfectly done, which means a lower standard of product."*

This outcome of collectivization, inevitable it would seem in the present state of our capacity for administration and organization, is one which a country like Britain, whose standard of life depends so largely on the sale of high quality products overseas, could not lightly accept. That is one important reason why Russia's attempts at planning have less significance for us than some writers would have us believe. The Russian economy, with the exception of certain raw products like wheat, oil and wood, is concerned entirely with production for the home consumer for whom consumption is planned, and who has to purchase what the authorities see fit to produce. Thus, as Professor Hoover points out : " The Soviet system of industrial production does not have to take account of changes in the style of clothing ; neither does it have to produce small quantities of articles of luxury which could be sold at a high price, but for which the production costs would be very high. Small attention is given to refinement of detail, to polish, and to improvement of finish of products." †

* *The Economic Problem*. Chapter "Collectivism".

† *Economic Life of Soviet Russia*, p. 46.

Thus, as regards the production of quality goods, the Collectivist economy would operate under serious disadvantages. And it is unlikely that its achievements in the sphere of standardized production would compensate for the loss of foreign markets and the decline in the quality of consumption at home. But it is in the sphere of commerce and marketing that the most serious problems would confront the Collectivist economy. For nowhere is the unfettered practical judgment more necessary. It is not surprising therefore to find that it is on this front that the Russian economy has proved least successful. So favourable a critic of the U.S.S.R. as Mr. Louis Fischer, contrasts the achievements of Russian planning in industry with its failures in distribution in the following terms: "Generally speaking then, production in city and village has registered tremendous progress. Distribution, however, is in a mess. Part of the difficulty is bad freight transportation by land and water (passenger service has improved), but the trouble goes much deeper. Goods lie in warehouses and rot while the consumer searches for them in one store after another. Widespread inefficiency and endless red tape bureaucracy are aggravated by equally widespread speculation and the venality of petty officials. The Soviet press regularly prints details of the misdemeanours of store managers and co-operatives' employees. But the cancer remains."*

In his discussion with Mr. E. F. Wise on Import Boards,† Professor Robbins has shown the disadvantages of state trading, even in such a straightforward commodity as wheat. These disadvantages, however, may only be revealed in the course of time. At the outset men from existing businesses would be selected to run the Board. Thus for a generation at least the same men with the same ability and same moral habits would be working under a different label. But what of the following generation—would they be as efficient? For new conditions would be created by their relation to the Government. Efficiency in trading depends essentially on flexibility of organization and capacity for rapid and

* *New Statesman* article, "Russia's Progress", September 29th, 1934.

† *Political Quarterly* 1930.

untrammelled decision. But these qualities are conspicuously absent from forms of organization responsible to a democratic State, because the forms of procedure must necessarily be elaborate and cumbersome. Would the Import Board be liable for bankruptcy?—that is the test as to whether it would have the same freedom as private traders. As the State must necessarily assume financial responsibility, the forms and procedure essential in an undertaking responsible to Parliament would have to persist.

The disadvantages under which the collectivist economy would operate in the production of quality goods and in the sphere of marketing, we have attributed to its lack of the "self-adjusting quality" which characterizes the price economy. This lack would also show itself in another way. By severing the vital link between the consumer and the producer, it would remove an important stimulus to originality, both in improving the quality and the character of production. For it could provide no adequate substitute for the mechanism by which the consumer makes his wants known. This mechanism, as critics of the capitalist system have often pointed out, is very imperfect; but where there is competition among producers, the sales of the finished products are some indication that the consumer's wants are being catered for according to what he believes to be his satisfaction. But where there is only one producer, the consumer is compelled to content himself with what Authority sees fit to produce. He could not, as at present, make his views known by giving his custom to the trader who gives him what he wants. Thus an important incentive to originality in quality or in kind of articles produced, success in which in the price economy offers exceptional profits, would be removed. Moreover, as Mr. Hawtrey points out, if a customer should be dissatisfied with one article, the shopkeeper would have no motive except a sense of duty to show him another, or tell him where they could be got. The efficient shopkeeper would be overworked, and conversely.*

This analysis of the respective merits of a planned price economy and a collectivist economy is, of course, far from

* *The Economic Problem*. Chapter "Collectivism".

being exhaustive. If it had been, we should have been carried into the higher regions of theoretical economics. Our task has been a more modest one. We have endeavoured to show two things. First, that the critics of planning in a price economy have not made good their case. They have not advanced any substantial reasons for believing that planning and the private ownership of the means of production are incompatible. Indeed, when in Part II of this book we come to consider the more important of the actual planning measures that are already in being, the impression we shall obtain, even from these modest beginnings, will be that the scope of planning in a price economy is not inconsiderable.

In the second place, our analysis has been concerned to show that the protagonists of collectivism have not dealt with the most elementary implications of such an economy. They have not shown how, in an advanced country like Britain, an economy which lacked the self-adjusting quality of the price economy—a quality which is bound up with private ownership in industry—could effectively cope with the problems which would confront it.

Our argument, however, is not so pretentious as to affirm that a collectivist economy must be ruled out as an impossibility for all time. What possibilities the development of man's capacity for organization and administration have in store, who can say? While, therefore, we may be reasonably certain that we are on the road to a new economic system, "that we are now in an intermediate stage between these two systems—the self-regulating automatic system . . . and the system under which future needs are estimated, production is directed and controlled, and distribution is organized"*—while we may be confident of this, we cannot be equally confident of the route which will lead us to this goal. The most far-sighted of us may, from the hilltop we have reached, distantly espy the promised land, even distinguish its most prominent features, and the promise it holds forth of the good things to come; but we can discern only part of the route we are destined to travel, and only the broadest outlines of the details which give to the

* Sir Arthur Salter, *Recovery*, p. 14.

landscape a living reality. We shall do well therefore not to commit ourselves to a more complete plan of advance than our present knowledge justifies. And this error we should commit if we undertook at the present stage the collectivization of all or even the bulk of the means of production. For, as yet, we cannot be certain to what extent the incentives which provide at present the drive of the present economic system can be superseded by others, or the limitations which our capacity to organize may impose upon us.

PART II.
PLANNING IN PRACTICE

CHAPTER V

THE COAL INDUSTRY

IN Part II of this book an attempt is made to supplement the analysis of the main tendencies of the post-war era which we attempted in Part I, by an account of the practical achievements in Britain in the realm of planning. These achievements, broadly speaking, may be said to be confined to three main fields—coal, electricity and agriculture. In each case our survey of the planning measures which have been promulgated in these industries is prefaced by a brief account of the events and considerations which induced the authorities to act.

While this survey covers only three industries, it may be claimed that the problem of planning from the practical point of view has been dealt with on a fairly comprehensive scale. For coal may be regarded as representative of the old basic industries of which, apart from coal, iron and steel, cotton, and shipbuilding are the most important; electricity, of the public utility industries; and agriculture as an important case on its own. The lessons, therefore, which we can draw from the experiments in these industries must have a decisive influence upon planning measures which may be attempted in the next decade.

The problems of the coal industry were brought to a head by the emergence in the post-war era of two factors, one on the side of supply, the other on the side of demand. The supply factor was the expansion in foreign countries of the production of coal and its substitutes, lignite, oil and hydro-electric power. This expansion abroad of the sources of power, however, would not itself have produced the depression in the British coal industry. If the demand for coal had kept pace with the expansion of industry, as it did before the war, it would have affected the British coal industry only by reducing its proportion of the total

trade, leaving its absolute amount at approximately the same level.

Equally important changes, however, were taking place on the demand side of the equation. These were due to the advance in industrial technique, which was so greatly stimulated by the war. By greatly increasing the efficiency of fuel consumption and the utilization of substitutes for coal, technological progress checked the hitherto normal expansion of demand to an extent which has seriously contracted the British export trade. While the home trade has remained at approximately the pre-war level, overseas trade has been contracted by some ten per cent.

This contraction in demand for British coal has been peculiarly disastrous on account of the inelasticity of the demand for and supply of coal. As regards the demand for coal, there are two principal markets—the market for household coal and the market for iron and steel and for transport. “The household demand for coal depends upon the weather and is only slightly affected by variations in price. The demand for coal used by iron and steel depends on the demand for iron and steel, which is in itself inelastic.”* And the same remark applies to transport. Now this inelastic demand encounters an inelastic supply. “. . . the output of any given mine may vary within wide limits, but the variation is determined by technical conditions to a far greater extent than by minor variations in price. Given an inelastic demand and an inelastic supply, it follows that a minor change in demand or supply produces a disproportionate effect on price. A comparatively slight fall in demand for export produces a substantial reduction in the pit head price of coal.”†

Herein lies the explanation of the disastrous effect on the industry of the decline in the overseas demand for British coal. How was this situation to be dealt with?

* J. H. Jones, *Economic Journal*, “Organized Marketing in the Coal Industry”, June 1929.

† *Ibid.*

Three possible lines of attack were open to the coal owners. They could endeavour to reduce the price of coal by increasing their output; they could endeavour to increase their bargaining strength, particularly in the home market; they could rationalize the industry by suitable amalgamations and by co-operative action.

Prior to 1928 the great majority of owners had pinned their faith to a policy of reducing prices. "Hitherto a large section of the coal owners," writes Mr. Neuman in his standard book on the coal industry, "had always considered the best remedy against the prevailing depression and lack of demand was to embark upon a policy of reducing prices, and through this means to extend their sales. . . . Practically all coal owners (before 1928) were working on the theory that cheaper production (which would be secured by increasing their output and thus spreading their overheads) would allow them to obtain larger sales and to reap greater profits. But the whole difficulty always lay in producing cheaply enough to be able to reduce prices and enlarge the market sufficiently to combat external substitution. In order to achieve these ends the owners embarked upon increasing output, and the cost of a ton wrought became cheaper."*

The efforts of the owners, however, to solve their difficulties along these lines were unavailing. An important factor contributing to this failure was the lack of competition in the distributing side of the industry which "prevented the consumer from enjoying a proportionate benefit".† Thus the efforts of the owners to extend their markets by increasing output and thereby lowering prices was largely frustrated by the middleman, who, instead of aiming at an increase of his sales, was content to widen the margin between his buying and his selling price of coal.

It is this factor, perhaps, more than any other, which has convinced not only coal owners but industrialists in other of the basic industries that a radically new policy for industry

* *Economic Organization of the British Coal Industry*, Neuman, p. 447.

† Jones, "Organized Marketing in the Coal Industry", *Economic Journal*, June 1929.

is essential. "The middleman has virtually batted on industry both in home and export trade" is the verdict of Sir Adam Nimmo, ex-President of the Mining Association of Great Britain.

1928 was the critical year for the coal industry. It was in that year that the diminished demand for industrial coal "made itself felt acutely for the first time", and "the coal owners' policy of making use of the elasticity of demand for a rise approached its limits. Several coal producing districts began to apprehend that the cutting down of prices did not at once lead to a sufficient enlargement of markets and to the absorption of the plethora of coal, but merely to suicidal competition between districts and individuals. It was at this moment that the voluntary schemes of control of output and prices began to spring up and to cover certain areas where the demand was of a pronounced inelasticity both for a rise and a fall."*

In this way the first great impetus was given towards unification in the coal industry. This impetus, however, was accentuated by the improved organization of the distributing side. Having improved its organization beyond that of the productive side, the selling agencies were able to an increasing extent to dictate the pit head prices of coal. Indeed coal agencies often act as the sole distributing centres of a number of collieries, virtually allotting production quotas to them.† These giant selling agencies doubtless perform certain important functions, the size of their organization permitting them to a large extent to forecast future demand and therefore to allocate their orders to the collieries in such a way as to allow them to work at a more even rate.

The productive side, however, has become more and more conscious of the need for strengthening its own bargaining position in the face of the merchants. This lesson was driven home to them by experience. Those collieries, they observed, which possessed their own selling agencies, as did a group of Doncaster mines, were earning higher profits. In recent years many collieries have adopted this policy. Several

* *Economic Organization of the British Coal Industry*, Neuman, p. 458.

† *Ibid.*, p. 139.

companies of South Yorkshire, for example, have formed the Carlton Collieries Association to represent their commercial interests. Another such Association is the Rotherham and District, which distributes over 5½ million tons yearly.* The position in 1933 has been summed up by Mr. Neuman: "A vast number of large concerns have at the present moment their own selling departments and are independent of coal agents. Other combines possess a large share in the selling agencies disposing of their own coal and even have connections abroad."†

Among the smaller collieries, however, integration between the productive and selling side of the industry has been much more backward. This, of course, is what we should expect. The small collieries cannot form their own selling agencies as some of the giant concerns have done. Nor is it easy for them to form associations like those mentioned above to represent their commercial interests. In many instances the only adequate solution is to merge the small collieries into larger units—a point to which we shall return when discussing the problem of amalgamations.

The endeavour to increase the influence of the industry over the marketing and the price of coal by no means stopped at the point of setting up selling departments and Associations. "The year 1928," writes Mr. Jones, "witnessed the first serious attempt to substitute co-operative control for unrestricted competition in the coal-mining industry of Great Britain."‡ Three of the four main coalfields of Great Britain organized schemes for the control of output or of prices. Of these schemes only one, that of the Central Collieries Commercial Association, met with any real measure of success. In South Wales the agreement not to sell below certain agreed prices met with very partial success; while the Scottish scheme, by which an attempt was made to reduce output by payment of a subsidy to those owners who closed their pits or reduced their output, was scarcely more effective. The measure of success which attended the

* *Economic Organization of the British Coal Industry*, Neuman, p. 139.

† *Ibid.*, p. 140.

‡ *Economic Journal*, June 1929.

Midland Counties scheme is to be explained by the fact that some ninety per cent. of the output of the eight counties concerned is destined for the home market.

That this attempt to substitute co-operative control for unrestricted competition should meet with but very partial success was inevitable. So long as the state of the market was so extremely unfavourable to the owners, and so long as the industry was conducted by such a large number of independent units, co-operative control without legislative sanction could at best benefit only the more favourably situated concerns. As the Coal Mines Reorganization Commission has pointed out: "The experience of the last few years shows clearly enough how difficult it is for the industry, even with the help of an Act of Parliament, to impose price regulation effectively upon so many competitive units, and proves the wisdom of the remark made seven years ago by Lord Essendon's Committee on Co-operative Selling that even for that purpose alone amalgamations were "urgently necessary and desirable".* In the exporting districts, especially, where the demand for coal is more elastic, the temptation to evade the conditions of the scheme or to stand outside it was too great. How could such voluntary schemes prevent cut-throat competition between the districts?

As regards the third line of attack—the rationalization of the industry by amalgamations—the prospect that voluntary effort in this direction would achieve success sufficient to cope with the problems confronting the industry was scarcely more favourable. That there was the need for such a policy can scarcely be disputed in the face of the mass of expert evidence. "Among the numerous outside Commissions and Committees that inquired into various aspects of the industry in the troubled times that followed the war, few failed to voice the opinion that it consisted of too many units and ought to be converted into a smaller number of large ones."† The Royal Commission of 1925 (the Samuel Commission) recommended

* *Report to the Secretary of Mines*, Cmd. 4,468, p. 11.

† *Ibid.*, p. 4.

that statutory facilities for making amalgamations should be given to colliery owners, including the right to coerce dissentients—a right which was conferred on them by the Mining Industry Act, 1926. They also recommended that the owners should be given a chance of utilizing these facilities before further action should be taken by the State and that the position should be reviewed in three years.

The facilities granted by the 1926 Act, reinforced by the logic of events, did not prove altogether without avail. Great combines were formed in South Wales and South Yorkshire and certain influential concerns had tried to form the nucleus of a united Scotland. In 1933 a scheme to cover the whole of the Lancashire coalfields was drawn up, while a big amalgamation scheme for Durham had been unsuccessfully attempted. In several other districts movements on a smaller scale were also being made.*

How far short of effecting amalgamations on a sufficient scale these efforts came may be judged by the following pronouncement of the Coal Mines Reorganization Commission in their Report to the Secretary of Mines, dated December, 1933. "The picture now presented by the greater part of the coal mining industry is one of haphazard development of each coalfield by a large number of unco-ordinated units, brought into existence on no rational plan, nearly all working below capacity, competing suicidally, whether in capital expenditure or in prices, or both, for a market that cannot absorb the product of all. If in a coalfield which is being worked like this an authority were created capable of exercising control over each in the interest of all, it is inconceivable that no room would be found for lowering the costs of production by getting rid of waste, duplication and misplaced effort that are the inevitable consequence of the outlook of each being bounded by the horizon of his own concern. We were greatly impressed, for instance, by the evidence that we received about the extent to which costs are swollen by working below capacity. Estimates of the difference between present costs per ton and what they would be at full capacity were most striking. Even

* Cmd. 4,408, p. 6.

if ample allowance is made for what would have to be paid for collieries to be closed, and for the obvious practical limitations to a policy of closing some pits and concentrating at others, there must be scope for a saving of many millions a year in this way."*

A variety of reasons go to explain why the coal owners have not followed a policy which was so obviously to the advantage of the industry. In the first place, there is the personal factor. Mr. Neuman has doubtless some justification for his protest against the fashion "to over-emphasize the element of individualism to be found among coal owners, and very often to ascribe to their egocentricity all the existing troubles of the industry."† The Reorganization Commission, however, can scarcely be held guilty of over-statement in their pronouncement on this point. "The very real difficulty of getting incongruous personalities to work together, doubt by the prosperous of the possibility of linking them on fair terms with the less prosperous, a reluctance by the less prosperous to see a state of relative inferiority that they hope was only temporary, crystallized in the terms of a merger, a conviction by each that he would weather the storm better than his neighbours, fear of the loss of personal position—all these inevitable consequences of the industry's tradition of individualism created an inclination to turn away from amalgamation as a cure for its troubles and to regard with suspicion anybody whose business it was to foster it."‡

Progressive mine owners have voiced similar judgments. Sir Adam Nimmo, for example, has pointed out that: "The deep-rooted suspicion that the small undertaking will not get a fair deal from its more powerful rival retards progress."§ This point has also been stressed by Mr. Robert Burrows, the prominent Manchester coal owner.||

Another important factor retarding the amalgamation movement in the industry is the system of coal royalties.

* Cmd. 4,468, p. 11.

† *Economic Organization of the British Coal Industry*, p. 47.

‡ Cmd. 4,468, p. 7.

§ *The Times*, May 10th, 1934.

|| *Ibid.*, April 13th, 1934.

"Concentration", says Mr. Robert Burrows, "is rendered very difficult by reason of the restrictive clauses in so many of our leases."* On this point the Reorganization Commission is equally emphatic, asserting that the present system of mineral ownership stands "in the way of effective and lasting reorganization".† Indeed it has long been a mystery why royalties have not been nationalized, a measure which would confer on the State the powers of a lessor over the whole industry.

These criticisms of the efficiency of the coal industry, it should be noted, in no way imply that the individual colliery companies are incompetently managed. The Reorganization Commission is emphatic on this point. "We must not be thought to be criticizing the productive efficiency of each concern taken in isolation. The standard was always high, and it has become even higher since Part I of the Act forced managers up against the problem of adjusting their costs to stereotyped working below capacity."‡

It was to meet these problems of the industry which we have briefly analysed that the Coal Mines Act of 1930 was passed. How did the Act endeavour to cope with them? That is the question with which we shall be concerned for the remainder of this chapter. The Act divided the problems of the industry into two categories, the problems of marketing and the problems of reorganization, Part I being concerned with the former and Part II with the latter.

Part II of the Coal Mines Act 1930 is concerned entirely with the setting up of a Reorganization Commission with the following powers and duties. It has the power to hold inquiries; it has the duty, if it thinks that the amalgamation of any collieries would be expedient for the purpose of promoting the more economical and efficient working, treating and disposing of coal, to call upon their owners to prepare schemes for this purpose; and it is bound if they fail to do so, to prepare schemes for them and submit them through the Board of Trade to the Railway and Canal Commission. If the

* *The Times*, April 13th, 1934.

† *Cmd.* 4,408, p. 13.

‡ *Ibid.*, p. 11.

Railway and Canal Commission is satisfied that the scheme is fair, will promote efficiency and is in the national interest, it will make an order confirming the scheme, when it will become binding on all parties.

In the first two years of its existence the Reorganization Commission decided wisely not to press matters. It hoped that voluntary schemes would be forthcoming from the industry and that it would find the chief scope for its activities in overcoming the practical difficulties that have so often made attempts at amalgamation fruitless. Its coercive powers, it hoped, would be confined to compelling an obstructive minority to fall into line with a progressive majority. For the Commission is firmly convinced that "even an inferior scheme carried out voluntarily is preferable to a superior one imposed compulsorily".* Moreover, it also realized that throughout 1931 the industry was preoccupied with setting up the highly complicated mechanism prescribed in Part I of the 1930 Act.

Having conducted a tour of the coalfields in the Autumn and Winter of 1931-2, during which across-the-table talks were conducted with over 800 people responsible for nearly 95 per cent. of the output of the country, the Commission came to the conclusion that its hopes of voluntary action on a sufficient scale were doomed to disappointment. By the Autumn of 1934 its plans for securing the amalgamation total or partial of colliery undertakings were maturing, and in December, 1934, its first scheme was announced.

At this point it is necessary to make clear the structure of the industry at which the Commission is aiming. It is not making its chief aim, as many have seemed to suppose, the creation of great financial mergers. The Chairman of the Reorganization Commission made this clear in his statement to the leaders of the coal industry which was circulated to all the collieries. The structure to be aimed at, he said, was "not so much the creation of great financial mergers as the formation of operating units of moderate size linked together in associations falling short of complete financial merger".†

* Cmd. 4,468, p. 9.

† *Ibid.*

Thus the Commission envisages a structure of the industry which it has described as a "two-storey" building, the ground floor being built by "total" amalgamation, and the upper storey by "partial". The purpose of the "total" amalgamation is, of course, to bring the operating units, by means of financial merger, to the size which is optimum for productive efficiency. The purpose of "partial" amalgamation is to associate the operating units over wider areas "for purposes such as control over development, co-ordinated selling and concentration of production".*

The first "partial" amalgamation scheme along these lines which the Commission has drawn up and submitted to the Board of Trade is the West Yorkshire Association. This scheme, the details of which were published in December, 1934, provides for the compulsory federation into a partial amalgamation of sixty-one colliery companies operating in the West Yorkshire coalfield. The federated collieries will appoint one representative each to form a Joint Committee, which will be the governing body. The Joint Committee, which in making fundamental decision must obtain an 85 per cent. majority, bears the ultimate responsibility. The main work, however, will be done by the Executive Committee, a committee of ten owners' representatives appointed by the Joint Committee.

The Executive Committee has the following powers and duties. (1) The compulsory closing of mines in the district, with compensation. The exercise of this power, however, is subject to the decision of an arbitrator appointed by the Joint Committee. (2) The supervision of the purchase of mines by other members of the Federation. If an owner wishes to sell his mine, the other members will have the right to participate in the purchase. (3) The distribution of quota tonnage. When the Executive Committee orders the closing of a mine, it will distribute its quota tonnage among the members in proportion to their contribution to the levy for compensation. When a member wishes to sell a portion of his quota he must do so through the Executive, all other members having the right to participate in the purchase.

* Cmd. 4,408, p. 12.

- (4) Co-ordination of marketing. The Joint Committee may authorize the Executive to lay down standard conditions of sale, the making of marketing agreements, the fixing of minimum prices and the arranging of the exchange of markets.
- (5) The purchase of stores.

It is probable that many of the British coalfields will be reorganized along these lines. North Staffordshire has already federated its component collieries by a partial amalgamation, and Lancashire owners have also prepared a scheme. Durham, South Yorkshire, Nottinghamshire and Derbyshire have been instructed to prepare schemes, but, as they have as yet produced nothing, action by the Reorganization Commission is anticipated.

The activities of the Commission have by no means been confined to promoting partial amalgamations. For the Cannock Chase coalfield it has prepared a scheme of total amalgamation on the basis of reports furnished by its accountants and engineers. Similar work is somewhat less advanced in Fife. Data for the preparation of schemes for Warwick and Leicestershire is being collated, and an inquiry into the amalgamation of certain collieries in the older parts of the Notts and Derby field was in the Autumn of 1934 nearly completed. The Commission has also been engaged in assisting the promoting of voluntary schemes.

While Part II of the 1930 Act is concerned with the long term problem of reorganizing the industry, Part I provides for the setting up of machinery to regulate the production, supply and sale of coal. This machinery consists mainly of a Central Council and an Executive Board for each District.

The Central Council, composed of representatives of the coal owners in the several districts, has as its main function the task of allocating a maximum output to all the districts for a definite period ahead. In fixing the maximum output of the districts the Council must take into consideration the estimate of each district of the tonnage which its members can reasonably expect to dispose of during the coming period. The Council, however, will take as its main guide the output of each district in a past period, applying to it a fixed

percentage ratio.* In addition it must also take into account whether the district is a young and developing one. As the conditions of the market in any district may change during the allocation period, the Council may consider applications from the districts to have their allocations raised. Such applications have on several occasions been granted. In September, 1931, for example, the exporting districts, anticipating an increase in their sales consequent upon the departure of Great Britain from the gold standard, applied for and received additional allocations. Another important example occurred in the June quarter of 1933 when the Council granted the exporting districts larger allocations in anticipation of the results of the commercial agreements with the Scandinavian and Baltic countries. Yet another interesting case is that of Kent, which successfully appealed in the March quarter of 1932 to have its allocation increased on the ground of its development.

The main work, however, of regulating the production and prices of coal falls upon the Executive Boards. These Executive Boards, of which there is one for each of the twenty-one districts originally created by the 1930 Act,† are elected by the owners in the district concerned. For the purpose of regulating the production of coal, the Executive Board has to fix a standard tonnage for every mine in its area for each class of coal produced. And just as the Central Council, in allocating a maximum output for each district, takes into account the age of a district from the coal-producing point of view, so the Executive Board makes allowance for the age and future prospects of each mine. The main criterion, however, is the output of a mine in a certain period in the past. The constitutions of the district schemes, all of which resemble one another, also allow for a reconsideration of the standard tonnages. In the South Wales scheme, for example,

* The Working of the schemes under Part I of the Act during 1932, Cmd. 4,224, p. 6.

† The number of districts has subsequently been reduced to seventeen by the amalgamation of the Yorkshire, Derbyshire, South Derbyshire, Nottingham and Leicestershire districts into one district. The Act conferred on the districts the right to amalgamate for the purpose of forming common schemes.

revision takes place every two years. In the Midlands, however, and two other small fields the standard tonnage is invariable in principle, but can in fact be revised for every developing and decaying mine.

The Executive Boards have, as a second important function, to determine the proportion of the total district allocations to which each mine is entitled. This proportion or quota is expressed as a percentage of the standard tonnage, a separate quota being fixed for each class of coal. The quotas are usually determined three months in advance, Northumberland and South Wales with yearly quotas being notable exceptions. In order that collieries may not be handicapped in making long term contracts, several schemes provide that provisional quotas may be fixed whenever the period of allocation is less than twelve months. In most of the important districts collieries are allowed to carry forward quotas within a particular quarter of allocation from month to month up to 50 per cent. of the whole amount of the unraised quota.

As a quota is fixed for each class of coal, the Executive Boards have the task of classifying the coal produced within their respective areas. This classification is used not only to determine the amount of each kind of coal a colliery may produce; it is also necessary for the fixing of minimum prices for the various classes of coal, any colliery selling coal below these prices being subject to a heavy fine. In preparing the district schedule of prices in Durham, no less than fifty-three main classes of coal were distinguished.

The fixing of minimum prices by the Executive Boards has given rise to considerable friction between the districts. This was due to the fact that since the schemes came into operation the prices of coal in home markets had tended to rise, while export prices were declining. The exporting districts were encouraged thereby to compete for the home trade by undercutting prices. They therefore fixed their minimum prices below the actual prices, thus giving their members a margin for reducing prices. "By this method Scotland succeeded in taking a certain proportion of business

from the Midlands by sending coal to Lancashire and the South Coast."*

Competition between the districts thus tended to defeat the main purpose of Part I of the Act. Coal normally destined for the export market was entering the domestic market and causing confusion in that market. This could be prevented only by the inter-district co-ordination of minimum prices and by the separation of inland and export quotas. After the Government had brought pressure to bear by threatening to pass a Bill to amend Part I by making these things compulsory,† the industry reconciled its differences. In March, 1934, the Central Council of Colliery Owners announced that the district Executive Boards had agreed to its proposals for the separation of inland and export quotas, and for the interdistrict co-ordination of minimum prices.

The new structure of the coal industry has been subjected to much criticism. The most detailed criticism has come from Mr. Neuman in his standard work on the industry. Perhaps the strongest argument against the Coal Mines Act which Mr. Neuman has put forward is that it assists the weaker units of the industry at the expense of the expanding and modernized mines. It hampers the expanding mines because, according to Mr. Neuman, the quotas do not make sufficient allowance for the fact that past output is an unsuitable base for determining the present production of such units. But this is a criticism against the administration of Part I of the Act rather than a criticism of the Act itself. For as Mr. Neuman has himself pointed out, the district schemes provide that the past output of a mine during the prescribed period shall not be the sole criterion for determining its standard tonnage. "In fixing the annual standard all districts have regard both to the past circumstances determining a certain output during the prescribed period and also to the special circumstances of each mine, including the efficiency, the degree to which it has been developed for working coal and

* *Economic Organization of the British Coal Industry*, Neuman, p. 425.

† The text of a Bill was actually published in the middle of February 1934.

the extent to which production is increasing or declining.”* If therefore the standard tonnages of the expanding mines are fixed too low it is due to miscalculation or to favouritism on the part of the Executive Boards, not to the constitution of the District schemes. And such defects in the administration of schemes could be remedied by pressure from the Board of Trade.

Another important argument against Part I of the Act is that it places an unfair burden on the modernized collieries. The point is that the overhead costs of a modern colliery, equipped with mechanical cutters and other labour-saving devices, bear a greater proportion to its total costs than do the overhead costs of a colliery run on less up-to-date methods. Hence an all round restriction of output bears more heavily on the modern colliery, as its cost of production per ton will be raised to a greater extent. Thus Part I of the Act tends not only to raise the costs of production but also to handicap just those collieries which, in the interests of the community and the industry, should be encouraged.

The validity of this criticism, however, depends on the view we take as to the prospects of the work of the Reorganization Commission. If the Commission is successful in organizing the industry on the lines described above, then the control of production will no longer handicap the more efficient mines. The aim of the Commission, as we have seen, is to create a “two storey” structure in each district, the ground floor consisting of amalgamations of suitably related units, the upper storey of the integration of these amalgamated units into federations. The object of the federations will be to control development, co-ordinate selling, and above all to concentrate production in the more efficient mines. That the federations will have the power to effect these purposes was shown when the constitution of the West Yorkshire Federation was described.

Nor does the concentration of production entirely depend on the work of the Commission. The economic forces in the industry have already proved themselves strong enough to induce many large-scale amalgamations. In South Wales,

* *Economic Organization of the British Coal Industry*, Neuman, p. 415.

for example, a district which accounts for nearly 20 per cent. of the total output of the country, " amalgamations have been carried to such lengths that 75 per cent. of the output is in the hands of eight great concerns ", and " the seven of them that are outside the anthracite field have recently, as I understand, entered into a working agreement . . . "* In another of the most important districts, that of South Yorkshire, the Commission found that " the exceptionally large average size of the units " made it unnecessary to press for further amalgamation.† In Northumberland, Durham and Lancashire, all important fields, " integration had gone some way " and was still making progress.

Thus the adverse effect of Part I of the Act is likely to be of transitory importance only. With the progress of " total " and " partial " amalgamations, power over larger and larger areas to concentrate production will be acquired by the concerns effected.

* *Report of Reorganization Commission*, Cmd. 4,468, p. 2.

† *Ibid.*, p. 16.

CHAPTER VI

THE ELECTRICITY SUPPLY INDUSTRY. I

THE electricity supply industry is the most completely planned industry in Britain. With a view to planning the industry as a national unit, the Electricity Commission, after an exhaustive survey, have mapped out the country into a small number of super-power zones. In each of these zones the Central Electricity Board, which is the executive organ of the scheme, is engaged in co-ordinating the sources of supply, concentrating it in the more efficient stations, and in planning the construction of new ones. The coping stone of the scheme is the national "grid" by which the power zones have been inter-connected according to the requirements of the country as a whole, thereby transforming the electricity supply industry into a national unit.

What were the factors which produced this development of the industry? From the outset technical considerations have made a policy of *laissez-faire* as regards electricity supply impossible. In common with gas and water, electricity requires a costly system of supply lines connecting the sources of supply with the distributor and the consumer. Hence competition in the industry is largely ruled out, as the duplication of supply lines would be unthinkable. It is this technical consideration which necessitates a monopoly of one undertaking in any one area. And this necessity for monopoly requires state regulation on many points. In the first place the State must lay down regulations as regards the granting and delimitation of concessions. Secondly, the State must devise means for protecting the consumer from exploitation: facilities of service, charges and profits must be regulated.

This technical necessity, however, of a costly system of supply lines would not of itself have necessitated planning on a national scale. What circumstances differentiate the electricity supply industry from the gas industry, which does

not require a national organization such as that set up for electricity? They are two. Not only does electricity require to be produced on a larger scale than gas, but also great economies can be effected by a complex system of interconnection of generating stations. Interconnection of generating stations is of fundamental importance, due to the fact that electricity cannot be stored.

This point must be fully grasped if the necessity for large-scale planning is to be understood. In any particular area, say a town, the demand for electricity, in the course of a normal day, fluctuates considerably. There will be hours of peak demand during the day when the industrial demand is at its height and peak hours at night for lighting purposes. Now if the area in question is served by one or two generating stations unconnected with any outside area the load factor will be extremely low. In consequence a large part of the electrical plant will be virtually wasted. For owing to the fact that electricity cannot be stored, the electricity undertaking will have to be equipped to supply electricity far in excess of the average demand. It cannot, like the gas industry, run at a fairly even level, storing the excess supply of slack periods to meet the peak demands. It must be equipped to supply the peak demands at the actual time when they occur.

A concrete example of the waste involved in what we may call the parochial system of electricity supply will illustrate the importance of the load factor. "As a result of an investigation carried out in 1920 by the Union des Syndicates de l'Electricité in France into the earning power per kilowatt installed, it was found that a quarter of the power installed in the average power station would suffice to meet 75 per cent. of the total average load on the station, while the remaining three-quarters represented 25 per cent. In a station, for example, with five machines, each of 1,000 kilowatt capacity, two of the machines could deal with 95 per cent. of the power produced, and the remaining three with 5 per cent. so that practically three-fifths of the station had no earning power. . . . The distribution of the load of this typical station, based on the number of hours of actual

operation performed by each machine, can be seen from the following scheme.”*

EARNING CAPACITY OF ELECTRIC POWER PLANT IN A TYPICAL
FRENCH STATION

One set employed—

5,000 to 8,000 hours per annum or 75% of total period of supply.

600 to 1,200 " " " " 20% " " " " "

200 to 600 " " " " 4% " " " " "

80 to 100 " " " " 1% " " " " "

This example illustrates the point that a parochial system of electrical supply in which each small area is self-sufficing is extraordinarily wasteful. Under such a system the price per unit must necessarily be high, as the interest charges and expense of upkeep of a relatively large amount of generating plant must be met from a relatively small output of electricity. If, for example, the output of electricity could be doubled the interest charges and other overheads could be spread over twice the number of power units. It is this consideration which makes the super-power zone a *sine qua non* of economical electricity supply.

By the super-power zone is meant the interconnection of large generating stations in a wide area. The formation of super-power zones is fundamental for two reasons. It makes possible not only the concentration on large and efficient generating stations, but also the pooling of power over a wide area, thereby relieving the pressure of peak demands on any one station. The most remarkable advantages of interconnection have been supplied by Germany. For example three super-power stations now feed into a network supplying Berlin. In 1924 these stations had an output of 1,770,000,000 units, which is more than twice as great as that of the largest power-zone in Britain (800,000,000 units).† The construction of this super-power zone raised the load factor for the area to 57 per cent. as compared with the British figure of 28 per cent. The importance of the super-power zone may be estimated from the fact that the

* H. Quigley, *Electrical Power and National Progress*, Allen & Unwin, 1925.

† *British Public Utilities and National Development*, M. E. Dimock, Ph.D., Allen & Unwin, 1933.

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Central Electricity Board estimate that the raising of the load factor by interconnection of power stations will in the first ten years of operation effect a saving exceeding the cost of the construction of the national grid, which is about £27,500,000.

Having analysed the technical considerations which necessitate planning in the electricity supply industry, we are in a position to appreciate the situation which confronted the Electricity Commissioners in 1926, when they began to formulate the plan on the basis of which the industry is now being organized. Prior to 1926 Britain was far behind her competitors in both the extent of her electrical development and in efficiency. As regards *per capita* consumption of electricity Britain stood bottom of the list of those countries worth considering. Nor was her position as regards efficiency of operation much higher. As we have already seen, efficiency can be largely measured by the load factor. It is therefore instructive to compare output to capacity of undertakings representative of the most efficient in the principle countries. The following table shows the position in 1924 :

ELECTRICAL POWER SUPPLY IN SEVEN COUNTRIES*

Country.	Capacity of gener- ating Plant (kilowatts).	Output Million kilowatt hours.	Hours of Effective Utilization per annum.
Great Britain (14 undertakings)	1,062,290	1871·9	1,770
United States (9 undertakings)	3,097,465	9332·4	3,005
Canada (entire country)	1,800,000	8094·3	4,497
France (20 undertakings)	1,942,100	4144·0	2,130
Germany (15 undertakings)	1,600,000	4856·5	3,035
Switzerland (entire country)	1,170,000	2800·0	2,400
Italy (14 undertakings)	1,075,110	4153·0	3,870

This table, however, does not represent the full extent of Britain's inferiority, for the twenty French companies, the fourteen Italian companies and the fifteen German companies were responsible for the greater part of the entire output of the countries in question. The fourteen British

* *Electrical Power and National Progress*, Hugh Quigley, Allen & Unwin, 1925.

undertakings, on the other hand, represented only one-third of the generating plant then installed in Britain, the remaining two-thirds being scattered over no less than 570 undertakings. "The inefficiency of power supply does not lie in the undertakings tabulated above, but in the immense number of small concerns, each intent on deriving profit from power, using fuel uneconomically, and distributing power without regard to national requirements."* The average capacity per station was only 6,550 kilowatts, 340 stations having a capacity below 3,000 kilowatts, whereas "it is only above 10,000 kilowatts that real economies in fuel consumption can be realized."† Mr. Quigley estimates that, of the 546 stations scheduled in Britain in 1924, about eighty to one hundred justified themselves economically—an estimate the accuracy of which is largely substantiated by the fact that, when the programme of reorganization is complete, the number of generating stations contemplated by the Central Electricity Board is 135.

Prior, then, to planning on a national scale the British electricity supply industry was both inefficient and backward in development. Lack of interconnection, the rigid observance of local monopolies, the refusal to pool power requirements and purchase in bulk, combined with incomplete utilization of electrical equipment on the part of the consumer—all these factors resulted in a low load factor and the retention of numerous, small, inefficient generating stations. In consequence the charges for electricity supply were, on the average, far higher than those existing in any other comparable country.

		Pence.
Great Britain‡	1922-3	2·07 per unit.
U.S.A.	1923	1·05 " "
Canada	1923	·72 " "
Switzerland	1923	·60 " "
Italy	1924	·46 " "

* *Electrical Power and National Progress*, Hugh Quigley, Allen & Unwin, 1925, p. 90.

† *Ibid.*, p. 125.

‡ *British Public Utilities and National Development*, M. E. Dimock, Allen & Unwin, 1933.

Britain's inferiority in electrical development prior to the organization of the electricity supply industry on a national basis can be accounted for by two main factors. In the first place the natural resources of Britain had to a greater extent than in other countries favoured the utilization of other sources of power. Owing to the fact that Britain is more highly favoured as regards her coal supplies, her industries have been naturally attached to the steam engine and gas, whereas in other countries there has been a greater incentive to turn to electricity. Cheap coal is also the explanation of the small domestic consumption of electricity for heating and cooking—a factor which is partly responsible for the low load factor in this country.

Natural conditions, however, are only partly responsible for Britain's backwardness in electricity. For, in the second place, electrical development has been seriously retarded and distorted by unwise or obsolete legislation. The statutory regulations laid down by the electricity Acts, which were passed when the industry was in its parochial stage of development, created a host of local vested interests, the protection of which was a primary concern of subsequent Acts. When, therefore, technical progress widened the radius of transmission and extended the field of the use of electricity, the regulations laid down in the later Acts, which were passed to provide for these new developments of the industry, were unduly restrictive. In particular, as the following quotation shows, they seriously hampered the development of the power companies, which were mainly responsible for the exploitation and development of the two most important innovations in the industry, the super-power station and the super-power zone.

This effect of the later electricity Acts is clearly shown by Mr. H. Quigley. "The whole country became parcelled out into small electricity allotments each railed off by rights and privileges which could not be overthrown in favour of broader schemes. A new undertaking desirous of entering an area covered by a number of those undertakings could only progress through the direct acquisition and often at extremely high valuation. . . . In other countries the

problem was simplified considerably through the nature of the undertakings supplying power, in the United States, Germany, France and Italy . . . the power supply company has been responsible for practically the entire development of electricity in those countries ; the part played by the municipality has been insignificant, with the possible exception of Germany. In the case of the private supply companies the forces of tradition and antagonism were non-existent ; national reorganization was merely a case of proving to the companies in question that the adoption of a uniform scheme would lead to greater profits . . . the work of the elimination of the small undertaking was realized simply through extension of capital on the part of the central undertaking, to absorb the capital of the smaller firm and a second stage in progress lay in conversion of the smaller company into a distributor buying power direct from the generating stations controlled by the central company."*

In order, however, that we may understand the way in which this situation in Britain was brought about, and the task that confronted the Electricity Commissioners and the Central Electricity Board, and even the future problems of electrical development, especially in the sphere of distribution, it is necessary to follow the course of development of the electricity supply industry.

The first attempts to supply electricity from a central source began in the 'seventies following the construction of the electric lamp, lighting, not power, being the first use of electricity after its initial application to the telegraph. The tentative efforts in this direction soon attracted the attention of Parliament who, after appointing in 1879 a select committee to investigate them, passed the first Electric Lighting Act in 1882. This Act, especially as regards the length of tenure of concessions it laid down, thwarted the development of the industry. In 1888 was passed the second Electric Lighting Act which modified most of its oppressive measures. Apart from the provisions relating to the length of tenure, the main provisions of these Acts related to prices and profits. The original Act of 1882 gave the Board of Trade power to require

* *Electrical Power and National Progress*, pp. 142-4.

accounts from electricity undertakings and also provided that the companies and municipalities might make "such charges for the supply of electricity as may be agreed upon, not exceeding the limits of price imposed by or in pursuance of their licence, order or Special Act." The maximum price system, which was thus set up for electricity as for water and gas, it is now pretty generally agreed, has not worked well. It has tended to encourage inefficiency and inertia. In the course of the debate on the 1926 Electricity Act the Minister of Transport commented on the then state of the industry in the following terms. "The bill is necessary because only a small percentage of stations of this country are in an efficient state."

The bias given to the development of the electricity supply industry by these early Acts has been largely responsible for the inefficient parochial system which largely characterized the industry when the planning Act of 1926 was passed. The effect of this legislation was admirably summed up during the same debate in the House of Commons by Colonel Ashley. "When electricity was first discovered, it could only be transmitted a few miles and it could only be used for lighting in congested or thickly populated areas, because that was the only place where it would pay. Therefore, any undertaking, whether municipal or that of a private company, normally took the municipal area as the jurisdiction over which it was to range. Consequently, there sprung up under legislative sanction, up and down this country, hundreds of these generating stations, and, as the radius for transmitting energy became greater, as it is to-day, these stations did not disappear as they naturally would have done, because of our conservative nature, and also, as the House will understand, because of the obvious difficulty of overstepping the municipal boundaries."

A concrete example will illustrate the restrictive nature of the legislation by which the development of electricity was controlled. In Section 4 of the Clauses Act of 1899 Parliament had prohibited the giving of supply and the laying of electric lines and works outside the prescribed areas of the undertakings in the absence of express authorization.

Sir Charles Wilson, referring to the experience of Leeds, stated that: "We could have supplied large areas by including them in our county boundary, but the House threw out the bill after the Department had reported in favour of our having the power to extend our boundary. Having spent £4,000,000 on our electricity enterprise we were not allowed to sell the product of our great station to people about us, as we were desirous of doing."*

So much for the development of the municipal undertaking and the legislation which hampered its growth. It is now necessary that we should retrace our steps a little in order to take account of the rise of the power company.

About the beginning of the century this new progressive force in the industry began to develop. In the 'nineties, as a result of technical developments in generation and transmission, and later on in the application of power to industry, a realization began to grow in authoritative circles that provision would have to be made for the generation of electricity in bulk. In 1898 a Joint Parliamentary Committee reported in favour of the granting of powers for the supply of electricity throughout wide areas, on conditions differing to some extent from those imposed by the then existing Acts. In 1899 a tentative Act was passed providing for the creation of electricity power companies, which were vested with the authority to supply large areas, generally as large as counties and sometimes larger. The statutory powers granted by this Act were subsequently extended by the Act of 1909, which made the taking of a supply of electricity in bulk from the power companies by municipal and other undertakings lawful. In practically every case the power companies were endowed with perpetual rights of supply within the limits prescribed by their Special Acts of Parliament; that is to say, they are not subject to the purchase clause of the Act of 1888.

The broad distinction between the power company and the municipal undertaking, it should be noted, is that the principal function of the power company is to provide wholesale supplies of electricity to other authorities and to provide

* *House of Commons Debates*, Col. 7,733, March 29th, 1926.

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electricity to large power users, such as the Lancashire cotton industry, while the municipal undertaking is mainly concerned with private lighting and heating, traction and street lighting.

The power companies have been one of the greatest forces in the industry making for progress. They have been the main pioneers in this country of long-distance transmission and interconnection of generating stations as well as large scale generation. As a result of their work in these fields they have developed an electricity supply to industry in the industrial areas which, for cheapness and efficiency, compares favourably with similar developments in the other principal countries. Among the more important industries supplied by the power companies are iron and steel, shipyards, chemical works, textile mills, iron and tin mines, cement works and engineering works of all kinds. The following figures illustrate the rate of development of power companies since the war and the increase in their efficiency.

CAPITAL EXPENDITURE AND OUTPUT OF THIRTEEN POWER COMPANIES.*

(Members of the Incorporated Association of Electricity Power Companies)

Year.	Capital Expenditure.	Units sent out of stations.
1922	.. £22,080,000	1,112,565,000
1927	.. £39,580,000	1,876,644,000
1932	.. £57,018,000	2,376,629,000

AVERAGE PRICE CHARGED PER UNIT†

1922	..	0·86 pence
1927	..	0·74 ..
1932	..	0·64 ..

In spite of the restriction on their powers, due to the retention of local monopolies in most of the large towns, the power companies, even before the Act of 1926, had in several large areas achieved unification and concentration of control. The largest unified area was that dominated by the North-Eastern Electric Supply Company. This

* *The Times, Electricity Supply Number*, November 5th, 1933.

† *Ibid.*

Company, through stock ownership of a large number of distributing companies, "controls and actually operates the generation and distribution throughout an area of over 2,400 square miles, embracing practically the whole of the industrial area of the North-East coast".*

While, however, the power companies had made great progress in unifying several areas, even converting one or two of them into super-power zones, in the great majority they had made far less progress towards unification. This was due almost entirely to the restrictive clauses in the electricity Acts, which hampered the power company even more severely than the progressive municipal undertaking. For the power company is mainly concerned with the generation of electricity in bulk, while the municipal undertaking employs its capital mainly in the distribution of current to the small consumer. Thus, the fact that legislation had parcelled out the whole country into small electricity allotments which could not be overthrown by broader schemes, except in certain cases at excessive cost, was more inimical to the development of the power company, whose operations are on a larger scale.

In addition, however, to the legal enactments which applied to both types of electricity undertaking, there were special clauses of a restrictive character which were mainly or entirely applicable to the power company. In passing the Act of 1899, which was mainly intended to extend the scope of the power company, Parliament, fearful lest the powers it was granting should give rise to monopolistic abuses, had inserted a clause which was intended to safeguard the community against this possibility. This clause provided that companies shall not purchase or acquire the undertaking of or associate themselves with any company or person supplying energy unless authorized by Parliament to do so. By this provision the most important tendency in electrical development was seriously checked, namely, the absorption by the central undertaking of the smaller undertaking, and the ultimate transformation of the latter into a mere distributor

* *British Public Utilities and National Development*, M. E. Dimock, p. 210.

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buying power direct from the former. And Parliament, not content with hindering the power company in its normal growth by acquisition of the smaller undertaking, further restricted its development by protecting the vested interests of the distributing companies. By a clause of the 1909 Act it was enacted that if established industries were located in an area served by a distributing undertaking, the power company in that area must secure permission from that undertaking before it could supply power to those industries.

CHAPTER VII

THE ELECTRICITY SUPPLY INDUSTRY. II

THE legislation outlined in the last chapter, together with the fact that alternative sources of power were relatively more efficient in this country, explains Britain's backwardness in electrical development prior to the movement towards a nationally planned electrical supply industry. This movement may be said to have begun in 1917, when the Government, having had its attention drawn to the state of the industry by its anxiety over the conservation of the national coal resources, appointed the Williamson Commission. In its report* the Commission put forward an admirably far-sighted and constructive scheme which formed the basis of the Electricity Bill of 1919 as it was originally drafted.

The main purpose of the Bill was to set up machinery for the creation of super-power zones. This machinery consisted of two main parts. In the first place Electricity Commissioners were to be appointed. Their function, in addition to their supervisory and regulating powers, was to map out the whole country into convenient electricity regions. Secondly, in each of these regions central administrative bodies representative of the various interests involved were to be appointed by the Commissioners. These district electricity boards were to enjoy the powers of a private company controlling the activity of subsidiary companies. In other words, the district electricity boards were to have powers to fix maximum prices, to compel service and extensions of electricity facilities to new territory, to take over generating stations, to build generating stations if required, and to centralize the supply and distribution of electricity in large stations feeding out to small undertakings, who would abandon generation.†

Thus the Electricity Supply Act of 1919, in the form that it passed the House of Commons, was a far-sighted measure calculated to deal effectively with the weaknesses of the

* Cmd. 9,062, Stationery Office, 1918.

† *Public Utilities and National Development*, M. E. Dimock.

electricity supply industry. Unfortunately, however, the Bill was not destined to reach the statute book without being drastically curtailed. A combination of vested interests in the Lords succeeded in devitalizing the Bill by denuding the Electricity Commissioners of their compulsory powers. In consequence the Act of 1919 failed in its purpose of creating the super-power zone and the nationalization of generation. Seven years were to elapse before legislation was passed adequate to meet the situation of the industry. The Act of 1919, however, was not entirely unavailing. It had set up a planning body in the Electricity Commissioners, who, in these intervening years, were gaining experience and a wealth of information.

In one respect the all-important Electricity Act of 1926 is a less ambitious measure than that of 1919. For the Central Electricity Board, which is the executive organ under the 1926 scheme, enjoys less extensive powers, especially as regards the planning of distribution, than those designed for the district electricity boards referred to above. But it goes beyond the 1919 scheme in that it provides for the unification on a national scale of the electricity supply industry by the construction of the "grid".

Under the 1926 Act two bodies were appointed to construct and operate the scheme it lays down. The first of these was the Electricity Commissioners, created by the 1919 Act. This body, whose powers were greatly extended, were entrusted with two main functions: to construct the plan, and to act as the judicial authority. To carry out these functions it was obviously necessary that the Commission should possess adequate technical knowledge, hence four of the five Commissioners are electrical engineers. The Commissioners, three of whom are full time officers, are appointed for a term of seven years with provision for re-appointment by the Minister of Transport with the concurrence of the Board of Trade. No member may be personally interested in any electrical undertaking.

The main functions of the second body set up by the Act, the Central Electricity Board, were to carry the plan into effect and to run the scheme upon its completion.

The functions of the Electricity Commissioners, then, fall into two main categories, the planning functions and the judicial and regulatory functions. Section 4 of the 1926 Act provides for one of the main aspects of the planning of the industry. By it the Commissioners are instructed to divide the country into a number of electricity areas, and to prepare and transmit as soon as possible a scheme relating to each of these areas. Nine of the schemes which will eventually form the national power system have been completed, while the development of the tenth, Northern Scotland, will probably be deferred for several years owing to the economic unimportance and sparseness of population of this region. In determining the areas of the schemes the Commission has taken into account such factors as existing groupings of undertakings, distribution of population and industries, the avoidance of transmission beyond the economic limit, ease of technical administration, as well as population and industrial trends.

Having divided the country into ten electricity zones, the Commissioners had then to prepare a scheme for each zone. The work involved in the preparation of the various schemes falls under two main heads. In the first place the Commission had the task of planning for the concentration of generation in the most efficient stations. For this purpose it is empowered to determine which stations, whether existing or new stations, shall generate electricity for the national scheme, such stations to be designated "selected" stations. The total number of stations selected by the Commission for the nine schemes prepared is 135, of which sixteen are to be newly constructed. In 1926 there were 592 public generating stations in Great Britain, of which thirty-two stations were responsible for 50 per cent. of electricity generated, while 462 produced the other half.* As we shall see later when we deal with the functions of the C.E.B., this body is given extensive powers for the closing down of uneconomic stations.

Secondly, the Commission was given the task of planning the interconnection of "selected" stations and the

* *British Public Utilities*, M. E. Dimock, Allen & Unwin, 1933.

connections with the distributing undertakings, as well as the standardization of frequency necessitated by interconnection. This system of interconnection is one of the most important aspects of the scheme, for, by its instrumentality, the average load factor of the county (i.e. the proportion of actual output to potential output) will be substantially raised. As we saw in the last chapter, a generating station working in isolation has to maintain a large proportion of reserve plant in order to meet peak demands and also to provide against breakdown of one of its machines. If, however, a number of stations are interconnected, the reserve plant necessary for a station working in isolation will almost suffice for the whole group, thus releasing a large proportion of idle or partially idle generating plant for regular use. So important are the economies which will result from the interconnection of generating stations that they will, according to the estimate of the C.E.B., effect a saving of expenditure on generating stations in ten years of the whole capital cost of the grid, namely, £27,500,000. Up to the end of 1934, by which time the Scheme was in full operation in only seven of the nine areas, the grid had already saved the country £9,000,000 in capital expenditure on generating plant.*

The planning powers, then, of the Commission consist in rationalizing the generation of electricity and planning the national grid. The Commission's judicial and regulatory powers, the execution of which forms its second main function, can best be considered when we have reviewed the work allotted to the C.E.B.

The work of the C.E.B. falls under two main heads. First to carry into effect the plan drawn up by the Electricity Commission; second to operate the scheme upon its completion. Thus the C.E.B. is the executive organ by means of which the scheme of interconnection and bulk transmission will be carried into effect. While, therefore, the Electricity Commissioners are primarily a body of expert electrical engineers, the C.E.B. were chosen for their practical experience in a variety of pursuits. It is nominated by the Minister of Transport, "who in selection has paid

* *Seventh Annual Report of the C.E.B.*

attention to special qualities such as knowledge of industrial organization, finance, and control of large manufacturing establishments".* Members, who are appointed for terms varying from five to ten years, are selected to some extent on a basis representative of the main interests involved, such as the local authorities and the railways.

The constitution under which the Board is to operate has excited widespread interest, for it represents a new and important advance in public administration. The main feature of the Board's constitution is that it combines long term control of policy by the government, through the latter's power of appointment, with autonomous powers in its day to day operations. "It can make its own arrangements with supply undertakings, fix its own tariffs and control absolutely its own administrative organization."† It is financed, subject to treasury control, by the issue of stock which carries with it no voting rights. It is forbidden to earn profits.

That the constitution of the Board is admirably adapted to the functions assigned to it by the 1926 Act is borne out by the vigour and ability it has shown since its creation. "During the first five years of its existence the Board has evidenced definite objectives, aggressive action, and highly satisfactory results. Progress in the national electricity scheme has surpassed the expectations of its most ardent supporters."‡

The Board began the task of constructing the national grid in January, 1927, when the first scheme prepared by the Commission was adopted by the Board. Thereafter further plans followed at the rate of two a year, until, in August, 1931, the last scheme, that for South Scotland, was adopted. The procedure for the adoption of plans was laid down by the 1926 Act. The C.E.B., upon the receipt from the Commissioners of a plan, which was drawn up only in broad outline, should publish it, thereby giving all interested parties an opportunity to raise objections. The wisdom of this course of procedure has been shown by the fact that several

* *Public Utilities*, M. E. Dimock, Allen & Unwin, 1933.

† *Ibid.*

‡ *Ibid.*, p. 228.

modifications have been adopted, such as the shortening of routes to link up main grid points and the deviation of the grid to preserve amenities. The construction of the grid, comprising 4,000 miles of transmission lines, was actually completed a year ahead of expectations in November, 1933, when the last pylon was erected. At the beginning of the same year the Board had already begun trading in two areas, Central Scotland and Mid-East England, when 1,360 miles of main transmission lines and 560 miles of secondary lines were energized. By January 1st, 1934, the grid was in full operation in all areas except North-East England.

When the whole national scheme is brought into operation, the main function of the C.E.B. in operating the system will be to act as middleman between the producers of electricity in bulk and the distributing undertakings. In other words, its business will consist in buying electricity from the "selected" stations, which are owned and operated by their previous owners, and to deliver it to the distributors at the 273 "Grid Points", where transforming stations effect the necessary reduction of voltage. The principles upon which the Board bases its charges are laid down by the 1926 Act, which provides that the price paid by the Board to the "selected stations" shall be regulated by a scientific system of costing. This price, plus a percentage to cover the capital charges and working expenses of the Board, is the rate at which the Board sells to the distributing undertakings.

As the national electricity scheme, however, is not merely static, the Board has more extensive functions than that of a middleman: it has the task of developing the scheme according to the needs of the country. In the first place the Board is empowered to effect, not only such alterations and extensions of "selected" stations as may be required by the original scheme, but also those that are required from time to time in the course of future development. As regards alterations and extensions required by the original scheme, Section 5 of the 1926 Act provides that in case the C.E.B. should fail to reach an agreement with the owners of a "selected" station, the station in question may be purchased by the Board and "transferred to a Joint Authority,

if there be one in the district, or failing the Joint Authority, to any authorized undertaker or company approved by the Board". If no suitable company can be found, the Board itself may acquire and operate the station. These provisions also apply to main transmission lines.

In the second place, the C.E.B. has important powers as regards the closing down of generating stations. If the Board finds that an undertaking which is not a "selected" station is generating electricity at a cost greater than that at which it could be supplied from the grid, then the Board is empowered to notify the undertaking to this effect and to offer to supply it at a lower rate. If the undertaking should reject the Board's offer, and if during the subsequent year the cost of generation remains higher than the Board's rate, then the Commissioners are empowered to close down the station and to order the undertaking to receive its supply from the Board for a period not less than seven years. The undertaking, however, has the right to appeal to an arbitrator and assessors appointed by the Minister of Transport.

Thirdly, the C.E.B. possess important powers as regards the erection of new generating stations. In the event of a new station being required in an area in which, according to the opinion of the Commissioners, no existing body can be found with whom satisfactory arrangements can be made, the Commissioners are empowered to authorize by a Special Order that the C.E.B. provide the station.

It is clear that the C.E.B. in the course of its operations is frequently involved in disputed questions with private and public interests. To avoid litigation or arbitration costs, therefore, Parliament conferred on the Electricity Commission certain judicial functions. Thus the Commission is empowered to act as arbiter in such disputes as the price to be paid by the C.E.B. for the acquisition of generating stations and main transmission lines, the obligations and rights of owners of selected stations, or the cost of altering frequency. The procedure in such cases is similar to that of the Railway Rates Tribunal. Appeals, however, to the Electricity Commission are voluntary; the parties to a dispute on these questions may, if they prefer it, argue their

case before barristers and assessors. This alternative method has, so far, not been resorted to by the electricity industry or the municipalities, while the Commission has held many hearings.*

In this chapter we have attempted to review the national plan laid down by the 1926 Act for the supply of electricity in Britain. The main objectives of this plan, as we have seen, have in the main been achieved. The whole country has been mapped out into a convenient number of super-power zones by a system of interconnection which has been executed by the Board; the generation of power for the national "grid" has been concentrated in 135 selected stations and sixteen new stations planned by the Commission—146 generating stations having been closed down between 1927 and 1933 †; the whole country has been unified by the construction of the national "grid", involving engineering feats which have been "truly inspiring",‡ thereby raising the load factor of the industry to the maximum level that the nature of demand will allow. It is anticipated that the percentage of spare plant required under grid operation will be about 20, i.e. 20 per cent. of the aggregate peak load, as compared with the average figure of nearer 80 per cent. in 1931.§

Nor does the scheme appear to be less effective in its executive aspect. Combining a large degree of decentralization with centralized control, it has every promise of being operated with energy and efficiency. For the adoption of the principle that generating stations shall remain in the hands of the original owners enables the C.E.B. to simplify its organization and to concentrate upon the important tasks of operating the grid, rationalizing the generation of electricity, and planning for the future needs of the country. The constitution of the Board, moreover, is well adapted to enable it to carry out these tasks, combining, as it does, public control with a very large measure of independence in operation. Professor Dimock has not been guilty of exaggeration in his assertion that: "The national electricity

* *Public Utilities*, Dimock, p. 224.

† *Ibid.*

‡ *Ibid.*

§ *Economist*, March 30th, 1935.

policy is impregnated with more industrial, social and governmental potentialities than any public utility development yet undertaken in Great Britain."*

The scheme, however, has not been without its critics. Two points, in particular, have been stressed; the necessity of the C.E.B. to operate a much larger number of stations than the system really requires; and the omission on the part of the scheme to deal with the problem of distribution. As regards the former point, it has been asserted that while provision is made for the employment of 135 "selected" stations, only one-third of these may be regarded as base load stations operated continuously.† In the two areas in which the C.E.B. first started operations, Central Scotland and Mid-East England, it is pointed out, the Board by 1933 has found it possible to concentrate 76 per cent. of the total production of these areas in ten stations out of the twenty-five originally selected.‡ As the Board has guaranteed the capital charges and costs of production of all selected stations irrespective of the use made of them, it is under obligation to carry a burden of fixed charges that will mortgage to a not inconsiderable extent the economies which it is affecting.

That the C.E.B. has been unduly fettered in this and other ways seems to have been recognized by the authorities. Accordingly, in the early part of 1934, a Bill was introduced into the Lords to enable the Board to get round some of the most difficult provisions of the 1926 Act, and to negotiate direct with the railway companies for the provision of a new load, which would widen the basis of its operations.

The second criticism levelled against the scheme is more fundamental. By failing to tackle the problem of distribution, it is pointed out, it largely nullifies its achievements in the field of generation and transmission. For the economies to be reaped from the rationalization of generation and from the national "grid" are largely potential, depending on a substantial increase in the demand for electricity. The purpose of the grid, as we have seen, is to link together all

* *Public Utilities*, p. 195.

† *The Economist*, April 21st, 1934.

‡ *Sixth Annual Report of the C.E.B.*

the main generating stations in the country, thereby liberating for regular use the capacity which each station working in isolation was compelled to hold in reserve for peak loads and emergencies. The grid, that is to say, has virtually increased the productive capacity of the existing plant of the electricity supply industry, enabling it to meet a greatly expanded demand without incurring additional capital expenditure. Unless, therefore, electricity consumption shows a pretty rapid expansion in the near future the industry will be thrown out of balance.* "The danger of the electricity supply industry falling out of balance—between manufacture and sales—is a danger which must be considered. It would be absurd if the C.E.B. were to reduce the national cost of electricity to less than 4d. per unit to find the consumer paying an average of 1½d. per unit or even more. Distribution cannot be left to the play of economic forces if generation and transmission have already been organized on a scientific basis: the existence of an enormous number of distributors supplying small areas cannot make for efficiency or reduction of waste."†

That the position of the distribution side of the industry is highly unsatisfactory is recognized by the Electricity Commission. "It has become increasingly evident", says the Twelfth Annual Report of the Commission, "that centralization of generation will require to be supplemented by improvement and co-ordination of distribution if the opportunities for expansion presenting themselves to the supply industry are to be utilized to the fullest possible extent."

Nor is there less agreement as to the main cause for this requirement. In the first place the existence of a large number of small distributors means lack of uniformity and inertia. The lack of uniformity as regards the voltage at which supplies were given to consumers is evidenced by the fact that, in 1930, 1,253 undertakings were distributing A.C. only, 288 were utilizing both, while 121 were distributing

* Results seem to show that these fears have been exaggerated. In the period 1930-4 inclusive, the output of electricity in Great Britain has increased by 50 per cent. (*Seventh Annual Report of the C.E.B.*) The increase in the world as a whole during the same period was only ten per cent.

† *The Economist*, 1,068, 1928.

D.C. only.* The inertia of many small undertakings, who content themselves with making a large profit on a small number of consumers, is an even more serious factor; for it partly explains why certain sections of the country are deprived of a satisfactory electricity supply even where there is an effective demand, potential consumers being discouraged no less by the demand for guarantees and high installation charges than by the high charges for electricity. And, as Professor Dimock has pointed out, there is "a close and inescapable relation between the lowering of retail and commercial electricity and the economic use of the grid".† But an adequate reduction of the price of electricity is unlikely to be brought about until the distributive system and the machinery for regulating prices are drastically overhauled. It is one of the main defects of the 1926 Act that it left the regulatory powers of the Electricity Commission the least effective part of its functions.

The ultimate solution of the problem of distribution is likely to be less simple than that of generation and transmission. As Professor Dimock suggests, progress may be made along three principle lines: (a) the extension over wide areas of power companies, who would themselves own and operate the distributing stations; (b) the widespread development of Joint Electricity Authorities and Joint Boards; (c) the development of a National Distribution Board on the lines of the C.E.B. to cover distribution. Method (b) Professor Dimock regards as a particularly satisfactory means of integration. He further points out that if the functions of the C.E.B. were to be extended to cover distribution, it would have to be done on regional foundations and local responsibility. For the success of a plan for distribution, unlike that for the supply side of the industry, would depend on "service, on active enterprise and selling efficiency; and a national board would not furnish these things and be able to create a scheme capable of dealing with every type of consumer, which would be elastic in operation and consistent in principle."‡

* *Public Utilities*, Dimock, p. 255.

† *Ibid.*, p. 246.

‡ *Ibid.*, p. 258.

CHAPTER VIII

AGRICULTURE. I

IN Part I of this book we distinguished three factors as the root causes of the problems of the basic industries: the evolution in technique, the termination of the era of expansion, and the regulation, official and unofficial, of commodity and factor prices.

The difficulties of British agriculture are also the product of these factors, but the casual connection between them is different. The evolution of technique, for example, has affected British agriculture not by lessening the flexibility of its organization, as in the case of the basic industries, but by intensifying overseas competition and the problems of marketing. Let us take first the question of overseas competition. While modern agricultural technique has not modified to any important extent the size and organization of British farms, it has greatly increased the ability of the overseas farmer to compete in the British market. For agricultural inventions have assisted the overseas producer to a far greater extent than his British competitor, the conditions in countries like Canada, the United States and Australia, where land is cheap, labour scarce and the climate drier, giving greater scope to the use of modern machinery. More important, however, than the inventions in the sphere of production are those concerned with storage and transport; for it is these which enable the overseas farmer to overcome the disadvantage of producing perishable commodities for a distant market. With every year that passes, commodities like butter, eggs, fruit and meat arrive from the antipodes and other distant markets in a condition which approximates more and more to that of British produce. Thus the advance in technique in the realm of production and transport is greatly intensifying the overseas competition which British agriculture has to meet. To this fact can be largely

attributed the serious plight of the Eastern counties prior to the Wheat Act of 1931, the crises in dairy farming prior to the formation of the Milk Marketing Board, and that in the live stock industry down to 1935.

Advance in the technique of production and transport has also affected British agriculture more directly. By promoting specialization it has meant that the British farmer sells his produce in more distant markets; he can no longer rely to the same extent on the neighbouring town as an outlet for his produce.

Hence agricultural marketing has become increasingly complex and on a larger and larger scale. This has affected the farmer in two ways. In the first place it has increased the technical problems of marketing, as it has made such problems as standardization, grading, the fluctuation of prices more important. Secondly it has affected profoundly his bargaining strength, for the modern complexity of marketing has fostered the growth of powerful marketing organizations. This increased complexity of marketing, together with the intensification of foreign competition, are the main justification of the Marketing Schemes.

Thus agriculture like the basic industries, has been profoundly affected by the evolution of technique, though in a different way. The other factors which we have distinguished as the characteristic features of the post war era have also contributed to the difficulties of agriculture. The trend in population and the increase in wealth per head has produced a shift in demand from the staple agricultural products to the more expensive forms of diet, such as vegetables and fruit. Finally the authoritarian regulation of wages in agriculture by the Agricultural Wages Boards has increased the rigidity of the farmer's costs. The rigidity in the costs of distribution has also worsened the farmer's position by lessening his share of the consumer's pound.

In order, however, to understand the difficulties of British agriculture, it is necessary to analyse the factors peculiar to the industry—factors which, even in pre-war days, impeded to a large extent the working of economic forces. It is the purpose of this chapter to analyse these factors peculiar to

agriculture. In the light of this analysis subsequent chapters will deal with the efforts of producers and the State to cope with the economic problems which thus arise.

Three such factors may be distinguished :—

- (1) Irregularity of the response of Nature to man's efforts.
- (2) Relatively small scale and scattered nature of production.
- (3) The length of the period of production on the farm.

(1) *Irregularity of the Response of Nature to Man's Efforts.*

In no other industry has the producer so little control over the volume and the quantity of his product. If in an iron and steel undertaking certain quantities of flux and ore are fed into a blast furnace, the quality and quantity of the iron produced therefrom is calculable within very narrow limits. Even in coal mining the output resulting from a certain application of labour and capital is tolerably certain. On the other hand, a farmer who plants a field of potatoes or who applies a certain amount of capital to the cultivation of an orchard is largely at the mercy of the Gods as to the quality and quantity of the crop he will harvest. For example, in 1929 the average yield of plums was estimated at 26·7 lb. per tree, while in 1930 the estimated yield rose to 53·3 lb. per tree.* Again, a temperate summer with adequate rain may cause milk yields to soar, while a hot summer may burn out the pastures. No other industry except fishing experiences such incalculable variations of output.

Inevitably, therefore, many agricultural products are subject to considerable fluctuations in prices, especially producer's prices. A bountiful year for, say, potatoes will cause the price of potatoes to fall, while a poor crop will cause the price to rise. Now these fluctuations in the price of agricultural produce are not of themselves harmful. The price per cwt. of potatoes may in a good year be low, but the

* *The Planning of Agriculture*, by Astor and Murray, Oxford University Press, 1933.

greater number of cwts. which the farmer has to sell may be sufficient to compensate him for the low price per unit.

Unfortunately, however, the farmer has to reckon with another factor which often makes the bounty of nature a curse to him. The demand of the consumer for the main articles of food from month to month and for food as a whole is relatively inelastic; that is to say, small changes in the prices of foodstuffs have little effect on the demand of the consumer. This inelasticity of the demand for foodstuffs may cause farmers to incur serious losses in years of abundant crops. In fact a small yield may be more profitable to the farmer than a large one. For example, according to the Dominion Bureau of Statistics, the value of the 1923 Canadian wheat crop, which amounted to 474,199,000 bushels was \$316,934,000, while the value of the 1924 crop which amounted to only 262,097,000 bushels was estimated to amount to \$320,362,000. With a crop like potatoes, which will not bear carriage over such long distances as wheat and for which there is no carry-over from year to year, the problem of price fluctuations is even more serious. "During the past five seasons potato prices have often lost all relation to cost of production. Thus average wholesale prices for the period September-May since 1922-3 have fluctuated between 71s. 5d. and 186s. per ton and monthly prices have varied between 55s. 6d. and 285s. 6d. per ton. The average prices for the seasons 1928-9 and 1929-30, for instance, were undoubtedly well below the cost of production on the majority of farms."* The report concludes that these fluctuations in price are due to inelasticity of demand together with variations of yield.

"Yes," the economic theorist may reply, "all this may be perfectly true, but the price mechanism will take care of such situations. These risks in agriculture will be allowed for by restricting the number of farmers, competition in agriculture will be less severe than it otherwise would be, and hence the price of foodstuffs will, in the long run, be sufficiently high to compensate the farmer for his bad years."

* *Report on Organization of Potato Marketing*, Economic Series No. 34, Ministry of Agriculture and Fisheries, p. 39.

This argument is perfectly sound as long as certain assumptions are made. If we assume that the farmer has sufficient knowledge and insight to interpret the fluctuations in the price of his produce and to respond to them in just the right degree, and if we also assume that the bulk of farmers have sufficient financial resources to enable them to take the long view, then, no doubt, this situation could be left to take care of itself.

The course of events, however, shows that these assumptions are inadequate. As many authorities on agriculture have pointed out, the majority of farmers tend to exaggerate the trend of the market as indicated by the movement of prices. If in consequence of a bad crop or for some other reason the price of a particular commodity rises, farmers tend to increase production until it exceeds demand and prices fall. The losses thus brought about lead farmers to contract production and prices rise once more. Thus a cycle of rising prices and expanding production followed by falling prices and contracting production is set up, carrying in its train costly miscalculations and avoidable losses. Often the expansion of acreage of a particular commodity caused by a rise in prices coincides with a high yield. It was this combination of events which led to the disastrous slump in the price of potatoes in 1922* In the pig industry miscalculations arising from misinterpretation of the movements of prices are even more serious. Pigs are "muck or money"† in quick succession. In a later chapter, when the pig scheme is discussed, the causes of the pig cycle will be referred to.

This inability of farmers to respond in the correct manner to price movements not only results in alternative gluts and scarcities to the detriment of both consumer and producer. Its consequences are more far reaching, affecting adversely the efficiency of agricultural production. As Sir Daniel Hall points out, a "great proportion of indifferent farming to-day is due to lack of confidence". The state of mind

* *Stabilisation of Agricultural Prices*, Ministry of Agriculture and Fisheries, Economic Series No. 2.

† *The Planning of Agriculture*, Astor and Murray, Oxford University Press, 1933.

of the individual farmer and his expectation of prices are vital factors in determining the character of farming. Unstable prices are bound to make farmers seek an essentially safe system rather than one aiming at high productivity.

(2) *Relatively Small Scale and Scattered Nature of Production.*

A second characteristic feature of agriculture which gives rise to certain special problems is the small scale of the productive unit combined with the fact that producers are widely scattered over the whole country. How small is the scale of production in agriculture compared with that of any other important industry is indicated by the fact that there are only 227 agricultural workers for every hundred employers. Agriculture, in fact, has been scarcely affected as regards the scale of production by the Industrial Revolution. "Taking the country as a whole there has been no change in the effective size of holdings since the days when farmers were first consolidated," writes Mr. C. S. Orwin. "In all the countries of England where arable farming predominates, which corresponds roughly to the districts enclosed under the Hanoverian enclosure movement, farms were blocked out and equipped, roughly between the years 1750 and 1830, and so they have remained unchanged for the most part until the present day. . . . In those parts of England and Wales where the consolidation of holdings was effected in earlier times . . . farms were mostly smaller and they too have remained with little change up to the present day."* This, as Mr. Orwin has pointed out, is very largely due to the fact that the power unit in agriculture has remained unchanged. The various mechanical improvements, at least until quite recently, have been designed as horse-drawn implements. "A pair of horses is required for each fifty acres of arable and the addition of 1,000 acres to any enterprise would have required the addition of the full equivalent complement."† Another important factor making for comparatively small scale production is the fact

* *The Future of Farming*, Orwin, Oxford University, Press, 1931, p. 94.

† *Ibid.*

that agriculture cannot be worked to rule from headquarters, as daily modifications of detail are necessary. " Directly therefore the enterprise becomes too large for the direct supervision of one organizer it invites failure."

It is to the agricultural problems which arise in consequence of the small-scale unit of production that the growth of co-operation all over the world is mainly due. The nature of these problems can best be seen by a consideration of the ends which co-operation in agriculture is designed to achieve.

The beginnings of agricultural co-operation are generally traced to the movement initiated in Germany by Raiffeisen in 1854. In the first half of the nineteenth century, the German peasants, having started commercial farming after their recent emancipation from the medieval system of the manor, found themselves confronted with two urgent problems. In the first place, under the new conditions of farming, they experienced a need for credit such as they had scarcely known under the old system. This need, under the leadership of Raiffeisen, they sought to satisfy by co-operation.

For by co-operation the difficulties which confront the farmer or peasant in obtaining credit can be overcome. In the first place co-operative societies can mobilize the surplus savings of their members, thus forming a fund from which loans can be made. Secondly, a co-operative society is in a position to borrow from outside sources by giving a collective guarantee. It can also ensure to a large extent that only credit-worthy producers obtain loans, as it stipulates that a borrower shall make a full disclosure of his financial position to a committee of his neighbours, who are likely to have an intimate knowledge of his character and circumstances. In Germany the credit co-operative societies have had considerable success not only in enabling their members to obtain more credit, but also in rescuing them from the rapacity of moneylender and tradesman.

A second important motive of agricultural co-operation is the desire of the producer to counteract the disadvantage under which he lies as a small buyer and a small seller. Before the rise of the marketing schemes under the Agricultural

* *The Farm and the Nation*, Sir E. J. Russell, p. 188.

Marketing Acts of 1931 and 1933, the agricultural co-operative movement in Britain was almost entirely concerned with the former of these two motives—co-operative buying. While co-operative credit and co-operative selling in Britain had been quite negligible, the co-operative purchase of feeding stuffs, fertilizers, seeds and implements has, in the last decade, amounted to £8,000,000 to £10,000,000 per annum. The greater success of this aspect of co-operation is, of course, due to the fact that it presents fewer obstacles than other forms of co-operation.

The small-scale purchaser of farm requisites is subject to two disadvantages. Not only is he open to the sharp practices of dealers desiring to foist inferior or unsuitable articles upon him, but he has also to pay higher prices on account of his buying in small quantities. On the other hand, a strongly supported wholesale purchasing society can buy at lower prices and can also exercise a sounder judgment as to the quality and suitability of their purchases. Moreover, as Mr. J. A. Venn has pointed out, not only may a co-operative purchasing society obtain the highest class of goods at wholesale prices, but may also cause competition for really extensive orders to result in further reductions.*

While the agricultural co-operative movement in Britain has been mainly concerned with co-operative buying, in certain other countries—Denmark, Australia, and New Zealand, etc.—it has been dominated by producers' selling societies. This is largely due to the fact that these countries specialize in the export of a small range of agricultural products, the marketing of which under co-operative conditions is especially advantageous. The advantages of co-operative selling, however, are far from being confined to these countries. In all, or almost all, countries, the farmer stands to gain more by co-operative selling than by any other co-operative activity.

In disposing of his products the agricultural producer works under difficulties which are unknown to producers in other industries. The fact that his produce is a minute

* *The Foundations of Agriculture*, by J. A. Venn, Cambridge University Press, 1933, p. 343.

proportion of the total volume passing through the merchant's hands, that it is subject to subtle variations in quality, that it is not forthcoming in a regular flow—all these factors place him at a disadvantage in marketing his produce.

As a small seller confronted by a comparatively large buyer in a market in which specialized knowledge is essential, he is peculiarly open to exploitation by middlemen. In selling as an isolated unit, he has also to pay for marketing services which, under a suitable organization, might be more economically performed, or even eliminated altogether. If, on the other hand, he markets his produce through a co-operative marketing organization, he stands to gain a greater proportion of the consumer's pound; for the co-operative principle not only enables him to bargain with the middleman on equal terms, but also to eliminate a link or two in the distributive chain. By the delivery of produce to a central district depot the work of grading, standardizing, packing, and transportation can be rationalized, the actual marketing of produce facilitated, and the elimination of gluts effected by orderly marketing in the disposal of surplus. These and other economies, such as the stimulus given to the improvement of quality and the more effective utilization of surplus produce, can be secured by co-operative marketing, as will be seen in more detail in the next chapter, when the objects of the various marketing boards which have been set up under the Marketing Acts of 1931 and 1933 are considered.

Nor is it only by co-operative selling that farmers can neutralize the effect of the small scale on which agricultural operations are conducted and of the scattered distribution of farms. As Lord Astor has pointed out, one of the most imperative needs of marketing reform lies in the amalgamation and consolidation of numerous small markets in England and Wales. The unnecessary number of small separate auctions "leads to a number of evils which defeat the object of an auction and, if persisted in, their own object; such are the formation of rings, repeated offering of cattle through the sellers' lack of confidence in an auction, running up of stock by owners, and, in general, division of buyers and

lack of competition. It also leads to waste through stock being moved repeatedly from one small auction to another."*

The nature of the handicaps under which farmers suffer in marketing their produce and a method by which some of them can be eliminated is illustrated by an enterprise initiated by farmers in the Midlands. "Before the formation of the Midland Marts Ltd. there were some twenty small markets within a radius of twenty miles of Banbury. Some of these had only five beasts for sale on any one day. . . . Buyers would not come from a distance because there was no certainty that their requirements could be met. The only purchasers were the one or two local butchers who inevitably formed rings. . . . With capital supplied to a large extent by a few farmers . . . the new market was built in 1925. To-day cattle are sent in . . . from dealers and farmers in all parts of the country, who are assured of a keen market. . . . The advantages to both buyer and seller are manifest; the certainty of a regular supply saves the buyers many visits to small markets—for this the butcher is willing to pay $\frac{1}{2}$ d. to $\frac{1}{4}$ d. a lb. more than on markets much nearer his own door and the farmer is safeguarded against 'rings.' "† Since the enterprise began sales in Banbury market have increased ten times.

This brief outline of the purposes of agricultural co-operation has served to illustrate the problems which arise in consequence of our first two factors in the agricultural problem. It has served to show that single handed the farmer is powerless to overcome the problems which beset him as a result of the irregularity of the response of nature to his efforts and, more particularly, of the small scale on which he conducts his operations.

The failure of the co-operative movement in Britain does not indicate that the root causes which have given rise to the movement abroad have not been operative in this country. True, the need for co-operation has been less urgent in Britain

* *Report on the Markets and Fairs in England and Wales, Part 1, p. 70, Ministry of Agriculture and Fisheries.*

† *Land and Life, Astor, p. 147.*

than elsewhere ; nevertheless, as a result of modern developments it has considerably increased in recent years.

That the British farmer's need for co-operative action has been less urgent than that of farmers in other countries is largely due to the British landlord system—a system peculiar to Britain. The merits of this system, now that it is in a process of decay, are becoming more and more recognized.

The landlord system, indeed, has been responsible since the rise of modern agriculture for many of the best features which characterize English farming. Progressive landlords—a not rare phenomenon in the nineteenth century—by sinking large sums in drainage, land reclamation, buildings, houses and cottages, and by providing the pure-bred livestock usually bred on their own farms—made British agriculture the admiration of Europe. Moreover, by acting as a buffer in times of depression between the tenant farmer and low prices, he created an atmosphere of confidence and security necessary to high farming. In a word, the landlord, in the heyday of the system, acted not only as an invaluable partner in the industry, but also as a highly efficient channel for the supply of one of the most important needs in agriculture—long term credit. As regards this need he made good the handicap under which agriculture must suffer in virtue of the small scale of the farming unit, which precludes the farmer from raising his permanent capital as the manufacturer does from the money market by the issue of shares.

In the twentieth century, however, and more especially since the war, the landlord and tenant system has been visibly declining. True, in 1925 the value of landlords' capital amounted to no less than £815,000,000, as compared with £365,000,000, the aggregate of tenants' capital* ; but many factors are undermining the landlord's position as the purveyor of long term credit to agriculture, while his partnership in the industry has almost entirely ceased to be an active one. Among these factors two may be distinguished as the most important. In the first place, legislation designed to remedy certain evils of the landlord-tenant system has greatly

* *The Planning of Agriculture*, Astor and Murray, p. 11.

reduced the effective control of the landlord. The Agricultural Holdings Act of 1875 and subsequent Acts have given the farmer security of tenure, the right to compensation for improvement, and the right to submit his rent to arbitration. And "As the landlord's powers were restricted, his active interest slackened."*

The second factor undermining the landlord's position of partner in agriculture has been the impoverishment of landlords since the Great Depression which began in agriculture about the year 1874 and lasted till 1896. During this period the persistent fall in prices due to monetary causes and the great expansion of foreign imports, first of wheat and then of livestock products, aimed the first great blow at the landlord's financial position. Forced to reduce rents to something like half of their former level and suffering great losses from the bankruptcy of many of his tenants, the landlord was no longer so willing or so able to fulfil his former role. And no sooner had agriculture begun to recover from the depression than the landlord received a new blow in the shape of the Death Duties, first imposed by Harcourt in 1896. Since they were originally imposed, the Death Duties have been increased to such an extent that an estate can be extinguished in less than three generations. Landlords pay away annually under this head no less than £2,700,000 which, in the present state of agriculture can only be met by forced sales of land—a process involving loss of capital to the industry. "The deterioration", writes Mr. Orwin, "of the permanent equipment of the land is a fact as to which there is general agreement."†

Mr. G. T. Hutchinson has admirably summed up the causes of the decline of the landlord system and its effects in the following passage. "It is a matter of common knowledge that the death duties have pressed harder on owners of agricultural property than on other property owners, because in the case of the former, the duties are levied on a principal value which bears little relation to a capital value calculated on the net annual return to the owners in possession. The

* *The Planning of Agriculture*, Astor and Murray, p. 11.

† "The Land Question," *The Highway*, February, 1928.

successor to a property which is purely agricultural must meet the duty by either raising money on mortgage or by selling part of the estate, and for his successor the latter is the only alternative. The consequent break-up of agricultural estates has been expedited in more recent years by increased taxation and a period of acute agricultural depression, resulting in greatly reduced incomes for landowners. Purchasers have usually been forthcoming from the tenant farmer class: these have had to elect between purchasing their farms or losing their homes or means of livelihood . . . they (occupier-owners) own one-third of the agricultural land of England and Wales and numerically they constitute the principal landowning class in the country. Many of them have already learnt to regret the day they purchased their farms with borrowed money on a falling market . . .

"As a result of various enquiries it has been estimated that . . . the rents obtained to-day represent interest varying from $2\frac{1}{2}$ per cent. to $3\frac{1}{2}$ per cent.—in many cases much less—on the landlord's equipment capital leaving nothing at all for the use of the productive powers of the land. Thus the landlord and tenant system has operated as a cheap form of agricultural credit. . . . The occupier-owner when faced with the necessity of replacing farm buildings finds that he has not the means to do so. If he decides to borrow the money for the purpose he finds the conditions are stringent; he must furnish proper security and pay the current rate of interest. So a part of the original equipment is not replaced and the farm becomes less productive. Many of the remaining landlords are faced with a similar dilemma: faced with the problem of meeting increased taxation and death duties with reduced incomes they are unable to make proper provision for the maintenance of their estates."*

The undermining of the landlord's position as an active partner in agriculture and as a provider of long term capital has created a hiatus in the British agricultural system. As regards the landlord's function of progressive leadership, his place is being filled more and more by experimental research stations and the Marketing Boards which are being set up

* Article in *The Times*, March, 19th, 1934.

under the Acts of 1931 and 1933. As yet, however, no adequate solution has been found for the problem of creating new channels for supplying agriculture with its permanent equipment; although a beginning has been made by the creation, in 1928, of the Agricultural Mortgage Corporation, which by 1933 had invested about £10,500,000 in farming.

From the brief description given above of the advantages of the landlord system, it can be seen that the need for co-operation among British farmers has been less than in other countries where the occupier-owner predominates. Other factors, such as the diversity of British farming, also help to account for the relatively small development of agricultural co-operation in Britain.

(3) *The Length of the Period of Production*

The length of many of the productive processes in agriculture, or the slowness of food production, as Mr. Russell prefers to put it, is the third characteristic of agriculture which we have singled out. A few examples will serve to illustrate this point. According to Sir E. J. Russell, the cow takes nine months to bear her calf, the calf two years to grow before it in turn will begin to bear a calf, then another nine months before it yields any milk.

Again, wheat requires twelve months, lamb from twelve months to two years, while beef and mutton require a much longer period.* It is this slowness of food production which accounts, to a large extent, for the inelasticity of supply of most agricultural products.

The farmer is thus in a position peculiarly exposed to the blasts of economic depression. Unlike producers in other industries he cannot, as a rule, protect himself against falling prices by restricting production, which would help to raise prices and restore the profit margin. A farmer who, in the face of a trade depression, took steps to restrict his output of beef might very well find that by the time his supplies began to fall off trade was on the upward trend and prices were rising. Thus it has been remarked, "Agriculture labours under a very severe disability in a period of falling

* *The Farm and the Nation*, Russell.

prices in that it is least able to adjust its output to changed conditions of demand."*

Other factors, however, besides the slowness of production account for this inelasticity of supply. In the first place, for obvious reasons "a farm cannot be closed down like a factory".† Secondly, as Lord Astor has pointed out, the family farmer, who employs little or no paid labour and who contributes a considerable proportion of the supply of many commodities, reacts to falling prices rather by increasing than by decreasing his output.‡ In an attempt to make up through increased sales for the lowness of prices he and his family work harder and for longer hours.

A third factor making for inelasticity of supply is the fact that many of the principal exporting countries of agricultural products are countries with a large external debt. The importance of this factor is shown in the following passage. "In fact, the reaction of the average producer to falling prices is likely to be in the direction of attempting to expand production with a view to maintain gross receipts. The extent to which the primary producing debtor countries' attempt to offset in this way the effect of falling prices has been responsible for the intensification of the world agricultural crisis is not generally appreciated. The slump in the prices of agricultural products has reduced the incomes of these countries at the same time as it has considerably increased the real burden of their debts. The pressure of these obligations, in turn, as Mr. J. B. Cundliffe points out on page 64 in his *World Economic Survey, 1931-2* (Economic Intelligence Service of the League of Nations), necessitated heavy taxation and banking policies directed to securing the necessary foreign exchange for the service of external debt. Such measures further depressed the commodity markets. As prices fell production was increased in a desperate attempt to maintain income and heavier export surpluses were thrown on the world market."§

* *Future of British Agriculture* (a series of articles), *Statist*, December 31st, 1932.

† *Ibid.*

‡ *The Planning of Agriculture*, Astor and Murray, p. 6.

§ *Future of British Agriculture*.

The degree of inelasticity of supply of agricultural products is indicated by the fact that between 1929 and 1932 agricultural prices in the chief exporting countries fell by 50 per cent., but this slump was accompanied by a decline of only 1 per cent. in agricultural production.*

Nor is it merely the inability of farmers to respond promptly to falling prices which renders them so susceptible to trade depressions. For while, on the one hand, they are peculiarly handicapped in restoring the profit margin by the restriction of supplies, they find themselves, on the other, confronted by comparative rigidity of costs. Rents are not subject to rapid adjustment to prevailing conditions, mortgage charges are rigid, while wages, subject since 1925 to the control of the Wages Board system, vary but little.

"In comparison with industry," writes Mr. D. A. T. Harkness, "purchases of raw material are relatively small.

. . . Under the British system of agriculture . . . the farmer is faced with two primary items of expenditure—rent of land and wages of labour. At the time of the first census of production the former probably amounted to fully a quarter of the value of the agricultural output of the country. In comparison, expenditure of purchases of materials required for use in production—which in the non-extractive industries is of much greater consequence—assumes a secondary importance. But rent and labour charges are precisely those which are least tractable to revision in accordance with changes in the general level of prices."†

When in the next chapter the various schemes put forward by the Government for assisting agriculture are considered, it will be seen that many of them are due to this inflexibility of costs and output in the face of persistently falling prices.

* *Statist*, June 3rd, 1933.

† *Economic Journal*, March 1928.

CHAPTER IX

AGRICULTURE. II

"No country in the world has such wide variations of soil and climate compacted in so narrow a range as Great Britain. In consequence British agriculture is exceedingly varied, and it is the most difficult in the world to dogmatize about. An intelligent person familiar with one region could probably suggest some simple way of improving the fortunes of the farmer and farm workers in that area, but he would probably find on further inquiry that the suggested method would be no use in some other region and might even make matters worse." (*The Farm and the Nation*, Russell, p. 38.)

THE analysis in the last chapter of the root causes of the main problems of agriculture has prepared the way for a consideration of the new agricultural policy which has been inaugurated in recent years.

It is possible to trace the beginnings of the new agricultural policy as far back as 1923. "In the decade 1923-32", writes Mr. J. A. Venn, "a policy of *laissez-faire*, when faced with growing difficulties, gave way to intensive application of minor *ad hoc* remedies. . . ." * One of the first of these measures was the British Sugar (Subsidy) Act of 1923, which was passed to meet the depression in arable farming in the Eastern Counties by stimulating the cultivation of sugar beet—a crop which can be more successfully grown in certain parts of East Anglia than elsewhere in Great Britain. In the same year more general assistance was granted to farmers by the Agricultural Rates Act which, it was estimated, afforded relief of rates on agricultural land amounting to an average of 3s. per acre. † In 1928 was passed the Agricultural Marks Act, which has been referred to in the last chapter.

* *The Foundations of Agriculture*, J. A. Venn, p. 521, Cambridge University Press, 1933.

† *Ibid.* The aggregate relief under this head is estimated to amount to £10,000,000.

The most important of these *ad hoc* remedies, however, were the two Agricultural Credits Acts of 1923 and 1928. Before taking the provisions of these Acts into consideration, it may be as well to examine the problems which they were designed to meet. Let us in the first place consider the problem of short term credit—a more urgent problem than that of long term credit. “In a country like Great Britain where tenant farmers predominate, working capital is the more important problem.”*

There is abundant evidence to show that a large number of farmers were unable to obtain adequate short term credit and that much of the credit which they did obtain was on unduly onerous terms. The Report on Agricultural Credit pointed out that “from almost all parts of the country evidence is forthcoming that agricultural produce is forced on the market at certain periods in such a way that the farmer fails to obtain the best prices. . . . It usually occurs in regard to corn and potato crops, and is almost invariably stated to be more common among small farmers, and most frequently to be due to financial pressure. . . . Again and again it is reported that, about harvest time, farmers find themselves short of ready money and are compelled to realize their produce for what it will fetch.” Stock farming is also affected. “Frequently it is stated from most of the stock-raising districts, that temporary financial pressure compels farmers to sell stock in an unfinished condition, or in a bad market.”†

Inadequate credit facilities, however, have had consequences even more serious to farmers than that of compelling them to dispose of their produce under unfavourable conditions; farmers have had to obtain credit on onerous terms from trades people.

According to the Report on Agricultural Credit, auctioneers who have large connections in cattle, sheep and farm sales, sometimes allow farmers to buy live stock on credit on condition that those cattle or sheep, or lambs born from

* *Report on Agricultural Credit, Economic Series No. 8, Ministry of Agriculture, 1925.*

† *Ibid.*, p. 21-2.

the latter, are re-sold in their markets. By this means the farmer is restricted in his market. Moreover, if the auctioneer is short of entries he may call upon a farmer who is in his hands to send cattle to market. "In consequence of this system the auctioneer's hold on some districts has been described as 'enormous.'"^{*}

The Report also states that a similiar system is in force in some districts in regard to corn, hay, etc. The farmer buys seeds on credit from the merchant on condition that the latter takes the farmer's corn crops when ripe. "This often results in the former having to buy in the dearest market and sell in the cheapest."[†] In some districts, too, dealers are stated to have a monopoly of supplying cattle to farmers on a credit basis.

What have been the causes of this unsatisfactory state of affairs? Not a few have held the joint stock banks as principally responsible. One of the most common criticisms levelled against the modern banks is that they are less "sympathetic" and more rigid than the old private banks were. It is also stated that the banks require good security and are unwilling to accept the security of crops or stock. In proof of the unaccommodating attitude of the banks, it has been pointed out that, while the great joint stock banks might have on loan to agriculturists at any one time upwards of £20,000,000, yet compared with the value of the output of the farms concerned, such a figure is very small—about 7 per cent.[‡]

Whether the banks are responsible for this situation or not, there is good evidence to believe that "The small tenant farmer . . . whose main assets are his growing crops and other stock has difficulty"[§] in obtaining credit from the banks. This criticism does not apply as regards the vast majority of large or medium sized farmers. The more substantial farmer often has title deeds, share certificates or life insurance policies to deposit as collateral; and even if

^{*} *Report on Agricultural Credit*, p. 32.

[†] *Ibid.*, p. 32.

[‡] *The Foundations of Agriculture*, J. A. Venn, p. 343, Cambridge University Press, 1933.

[§] *Report on Agricultural Credit*, p. 30.

he has not, he may be sufficiently well known to the bank with which he keeps his accounts for them to make advances upon their personal knowledge of him or upon the security of a personal guarantor. It is the small tenant farmer who has suffered from the lack of adequate credit on reasonable terms.

There are, however, more substantial reasons to account for this than the rigidity of banking practice. In the first place, as the Report on Credit has pointed out, it is difficult for the banks to give credit to small farmers who are in debt to tradesmen. The two systems of short term credit "are to a considerable degree irreconcilable".* Secondly, the fact that the banks have not made loans specifically secured on crops or stocks is not due merely to rule of thumb methods or lack of enterprise on their part. "In point of fact the banks have nothing with which they can charge stocks and crops, except a Bill of Sale, which is commonly regarded as disastrous to any future credit. The banks therefore are compelled to restrict their loans within the limits of personal unsecured advances, subject as they are to some uncertainty as to the borrower's other debts, or to require some form of security such as the above (i.e. share certificates, life insurance policy, etc.)"†

It was to remedy this state of affairs that the Agricultural Credit Acts of 1923 and 1928 were passed. The Act of 1923 is divided into two sections. The first section is concerned with providing long term credit for those farmers who had purchased their holdings between the passage of the Corn Production Act of 1917 and the repeal of its successor in 1921. The second section, however, unlike the first, was not designed to meet a merely temporary situation created by the war, but as a permanent solution of the short term credit problem. This problem it attempted to solve by offering State aid to co-operative credit societies. The State undertook to advance capital to co-operative credit societies upon a pound for pound basis. Members of the societies, however, would not be called upon to pay up more than 5s. in the £, so that the State offered

* *Report on Agricultural Credit*, p. 34.

† *Ibid.*, p. 35.

to make itself responsible for four-fifths of the share capital, which it was prepared to advance at the low rate of 4 per cent.

In spite of this encouragement, however, few co-operative credit societies were formed. The causes of this failure of Section II of the 1923 Act are not far to seek. It was not due to any particular defect in the application of the Act of the co-operative principle. The explanation lies in the antipathy of the British farmer to the two essential characteristics of co-operative credit. The disclosure of his financial position to a committee of his neighbours is only less distasteful to him than the assumption of a liability for somebody else's default.

The Agricultural Credit Act of 1928 was a far more comprehensive scheme than the Act of 1923. Indeed, with the passing of this Act "British farmers have, at last, at their disposal every recognized form of credit assistance."* The first of the two sections into which the Act is divided deals with the provision of long term credit—a provision which has become more and more necessary in recent years with the decline of landlordism and the increase in occupier ownership. Under this section, a company (the Agricultural Mortgage Corporation) has been formed with an initial capital of £650,000, subscribed by most of the leading banks. The principle of the Agricultural Mortgage Corporation is that it raises the funds necessary for its operations by the public issue of debentures. In this task it is assisted by the Government, which has underwritten these debentures to a maximum of £5,000,000 and by investing in them £1,250,000 of public money. The Government also assists the Corporation by contributing £10,000 a year for the first ten years of its life to its administrative expenses. The function of the Corporation is to advance loans through the banks to landowners who wish to improve their land and farmers who contemplate the purchase of their holdings. These long term advances are made up to two-fifths of the (specially ascertained) value of the holding, the principle and interest to be repaid in equal yearly or half-yearly instalments—with a maximum period of sixty years.

* *The Foundations of Agricultural Economics*, J. A. Venn, p. 356.

The second part of the Act, which deals with short term credit, is based on the findings of the Report on Agricultural Credit to which several references have already been made. The Report, it will be remembered, found that the main reason why farmers were unable to obtain adequate credit from the banks, which, by the way, it considered to be the best channel for the purpose, is that "the banks have nothing with which they can charge stocks and crops, except a Bill of Sale, which is commonly regarded as disastrous to any future credit."* Accordingly, the Report recommended that legislation should be passed enabling a valid charge on certain assets representing "temporary" agricultural wealth to be given in favour of the banks, ranking in priority to all other charges except rent, rates and taxes. A notification of the lien created on the property would be necessary only in the case of other banks, hence the problem of registration would be greatly simplified. There would be no necessity for anything analogous to the publication in the various trade protection papers of the registration, which is compulsory for a Bill of Sale. The situation would be met by the establishment of a central registration open to inspection by all banks, but not by the public.

These recommendations are embodied in Part II of the 1928 Act. The English farmer therefore now enjoys the privilege of chattel mortgage, as the American farmer has already done for some years. Thus the last remaining factor responsible for the inadequate credit facilities for agriculturists has been removed, now that short term credit resting on the security of growing crops, livestock or any other agricultural assets, is available.

In 1928 was also passed the first of a series of Acts designed to overcome the disabilities under which farmers lie in marketing their produce in consequence of the small scale and scattered nature of agricultural production and of the fluctuations in quantity and quality of supplies. This was the Agricultural Produce (Grading and Marking) Act which was supplemented by a further Act in 1931.

* *Report on Agricultural Credit*, p. 30.

The purpose of these two Acts is to promote the standardization and grading of agricultural produce. The necessity of standardization and grading to efficient marketing has been shown by the experience of the great food exporting countries. In virtue of this policy such bodies as the New Zealand Dairy Produce Control Board have not only reduced the costs of marketing by rationalizing the buying, packing and transportation of dairy produce, but have also extended their markets by inspiring confidence in the consumer and by stimulating the producer to maintain and improve quality. In such matters British farmers are a long way behind their foreign competitors. This is not due merely to the individualism and conservatism of British farmers, but largely to the handicap of natural conditions. It is comparatively a simple matter to organize standardization and grading in countries like New Zealand, Australia and Denmark whose products, on their route to overseas markets, pass through the bottle necks of the principal ports. In a country like England, however, where there is far less specialization in the various agricultural areas and where production is entirely for the home market, the problem is far more difficult.

The Grading and Marketing Acts promote standardization and grading by protecting certain grade designations by law and by importing into their use a warranty that the goods to which they are applied conform to certain legally defined standards. "Under this legislation the Minister of Agriculture may prescribe and define grades, and may also prescribe marks to indicate the grades. The use of the grades is open to anyone, but no one may apply the marks unless authorized to do so by or on behalf of the Minister and authorization is only granted subject to the observance of certain conditions designed to ensure the efficient grading, packing and packaging of the product."*

By 1931 the National Mark brand had been established and applied in at least twelve different commodities, namely, apples, peas, tomatoes, cucumbers, strawberries, cherries, cider, poultry, eggs, beef, flour, and also to canned fruit and

* *Economic Series No. 33, p. 7, Ministry of Agriculture and Fisheries, 1931.*

vegetables. "The National Mark Egg Scheme", writes Lord Astor, "has done much to develop the market for British eggs. The packing stations have enabled home produced, clean, graded, well-packed and fresh eggs to obtain the share of a market formerly dominated too long by overseas competition. In 1930 the number of eggs packed under the National Mark rose to 204,900,000, an increase of 35 per cent. from the previous year. The formation of a central selling agency for National Mark eggs is a further step towards the expansion of the market. Large buyers, such as the Co-operative Society, can now obtain standardized and graded eggs in bulk. This market was previously lost to the individual home producer, who marketed his eggs in small quantities."* "By its popularity with distributors and consumers and by the economies which it makes possible standardized produce goes a long way towards selling itself. . . . †

Standardization, however, is but a first step in the reorganization of the marketing of agricultural produce. A plan for marketing, if it is to go to the root of the matter, must promote three main ends, namely, orderly marketing, the control of surplus, the increase of producers' bargaining power. As these ends can only be effectively promoted by the producers of the commodities concerned, the plan must provide for the setting up of organizations representative of the producers. The forming of such organizations, however, on voluntary lines may be ruled out as impracticable, for a recalcitrant minority, by refusing to bear their share of the expense of a scheme or by refusing to follow its policy, has the power of wrecking it. "Unity of plan and unity of action connote discipline of the whole and not merely of a part." † It is therefore indispensable that the marketing organization of producers should be endowed by the State with the powers necessary to secure this unity of plan and action.

All these essential conditions for a comprehensive reorganization of agricultural marketing are provided for in

* *Land and Life*, p. 148.

† *Economic Series No. 33*, p. 7.

‡ *Ibid.*

the Agricultural Marketing Act of 1931, which has been justly acclaimed as an epoch-making measure. By it producers are enabled to organize themselves for the operation of a marketing scheme with which all producers, when it comes into full operation, will be compelled to comply.

While the Act provides for compulsory powers, its provision for the initiation of schemes and their operation are democratic in character. Schemes may be submitted only by producers, who, it is expected, will act through their associations. As, however, producers might desire to see a scheme in operation for a particular product, but would not be prepared to undertake the labour and expense which its preparation would involve, the Bill provides for the constitution of Agricultural Marketing Reorganization Commissions.* These Commissions, consisting of five members appointed by the Minister of Agriculture, may be charged at the discretion of the Minister with the duty of drafting a scheme for the consideration of producers. The decision, however, as to whether the producers shall submit the scheme, with or without modification, still rests with the general body of producers, and before a scheme can come into full operation it must be accepted by a majority of two-thirds of registered producers. This procedure having been completed the scheme, if approved by the Minister, is submitted by him to Parliament.

The provisions of the Act, which is foundational in character, as regards the types of organization and power of the marketing boards allows considerable latitude. This is necessary because the marketing problems to be solved by the producers of, say, milk, pigs and eggs are so different that they must be approached not only by different organizations but also by different types of organization requiring different powers. Accordingly the Act makes provision for three main types of organization. Trading Boards, Regulating Boards, and combined Trading and Regulating Boards.

It has been already pointed out that the main object of the bill is to enable producers through central organizations to control "surplus", to impose standardization, and to

* Section 15, (1).

operate a policy of orderly marketing. The powers of the three types of Boards is therefore such as to enable them to perform these functions. Thus the Trading Board may constitute itself or its agents as the sole buyer of the whole or any specified quantity of the regulated product, or any kind, variety, or grade of the product. That is to say, registered producers operating under a Trading Board would be required to sell the whole (or a specified quantity) of their output to or through the agency of the Board.

As a general rule, however, a Board will not itself require to perform trading functions. In most cases the type of organization best suited to the conditions of this country is that commonly adopted in the Dominions—the Regulatory Board.

The Regulatory Board will regulate, but not perform, some or all of the marketing operations of its constituents. The Milk Marketing Board, which was constituted in 1933 is an example of a fully fledged board of this type. The Regulatory Board may exercise just as much control as the Trading Board, for the Act provides for the endowment of Regulatory Boards with extensive powers. They may, for example, obtain the power to fix prices, to regulate the terms of sale, to determine the agents of sale or the kind, variety or grade of the product which may be sold.

The third main type of organization is the Combined Trading and Regulatory Board. The most likely example of this type of organization would take the form of a regulatory scheme with power to operate a surplus pool. While supplies were not in excess of market requirements producers would be free to market their produce through the ordinary distributive channels, subject to general regulation by the Board. In years of glut, however, supplies in excess of market requirements would be the subject of a pool operated by the Board and sold for what they would fetch in secondary channels of utilization.

From a description of the main provisions of this Act it can be seen that it lays the foundation for the reconstruction of British Agriculture. By it producers may obtain the powers necessary to remedy the fundamental

defects of the hitherto prevailing system of agricultural marketing. And it is to the marketing system that the principal weaknesses of British agriculture can be traced. Weak bargaining power, periodic "surpluses", the uneven flow of supplies to the market—these factors are mainly responsible for the uncertain and small returns which the farmer derives from much of his produce. And, as Sir Daniel Hall has pointed out, uncertainty is inimical to high farming, encouraging the farmer to play for safety by limiting as far as possible the employment of labour on the land and the outlay of capital.

Nor are the powers which the farmers organizations may acquire limited to questions concerned with marketing. A board may be empowered to buy and to sell or let for hire to its members anything required for the production, adaptation for sale, or sale of the product with which it is concerned. Boards may also be empowered to promote and subsidize research and education, and, as they will be in receipt of considerable revenues, they will not lack the means to do so. Not least in importance is Section 5 (*h*) of the Act, under which producers may be required to furnish the Board with such information as may be specified. Under this heading producers may be required to furnish figures of acreage, head of stock, or estimates of yield, etc. "In the course of its operation a Board will thus acquire information as to the crops, acreage, disposal, etc., such as has never before been available, thereby facilitating the planning of a coherent policy."*

During the course, however, of the preparation of certain schemes, it was found that the 1931 Act was not complete. The Lane-Fox Commission, for example, appointed to prepare a scheme for the marketing of pigs, stated that any comprehensive scheme for pigs or pig products would require some form of control over imports. Moreover, the course of events in the year or two subsequent to the passing of the 1931 Act made the control of imports still more necessary. In 1932 the imports of the various live stock products, which form the great bulk of the output

* *Economic Series* No. 33. p. 35.

of British agriculture, rose sharply, causing prices to fall so far that large numbers of British farmers were faced with imminent bankruptcy. This rise in the imports of live stock products was due partly to an increase in the output of the main exporting countries, but principally perhaps to the commercial policy of European countries, who placed unprecedentedly severe restrictions on the importation of foodstuffs, amounting in the case of some commodities to virtual prohibition. Hence supplies that were formerly destined for countries like Germany, France and Italy were diverted to this country, to the great detriment of British farmers.

It was partly to meet this situation and partly to a growing belief in quantitative regulations as an instrument of planning that the Government passed in 1933 the second Agricultural Marketing Act. This Act is perhaps the most revolutionary economic measure that has been placed on the statute book in modern times, ranking with the Electricity Act of 1926 and the Coal Act of 1931 in the powers of control which it vests in the hands of the Government or its agents. For not only does it empower the Board of Trade to restrict the imports of any agricultural commodity which is subject to a scheme actual or prospective, but it also vests in the Ministry of Agriculture the power to control the home production of such commodities.

The Agricultural Marketing Act of 1933 has been described as "a guarantee to British farmers, on the one hand, that the success of any future schemes for the reorganization of agricultural marketing will not be endangered by a glut of foreign food supplies and to the rest of the community, on the other, that the assistance so afforded to agriculture is conditional on the creation of efficient machinery for the marketing of agricultural produce."* The guarantee to the farmers is contained in Part I clause one of the Act, which enables the Board of Trade to restrict imports of agricultural produce. Part of the guarantee to consumers is also contained in this section of the Act, for it also provides that the Board of Trade shall only

* *Statist*, January 24th, 1933.

exercise this power provided that the commodity or commodities in question are either (1) subject to an existing marketing scheme or (2) that such a scheme has been prepared or is in course of preparation or (3) that the Board of Trade, in consultation with the Ministry of Agriculture, is satisfied that such a scheme cannot be brought into effective operation without the limitation of imports.

While clause 1 empowers the Board of Trade to control imports, clause 2 empowers the Ministry of Agriculture, *where the import of a commodity is so controlled*, to control the kinds, varieties, grades and quantities of the domestic product which may be sold. Thus the granting of assistance to British farmers by the restriction of supplies is conditional upon the reorganization of the marketing of the home supply. An additional safeguard to the consumer is contained in clause 3 which provides for the appointment of a Market Supply Committee. This Committee, which is appointed by the Minister of Agriculture, has functions analagous to the Import Duties Advisory Board, but wider, since they include production as well as imports. How effectively this safeguard will operate only experience can determine.

While Part I of the 1933 Act provides for the quantitative control of agricultural commodities, Part II supplements the provisions of the Marketing Act of 1931 in respect of the re-organization of marketing. Part II of the 1933 Act contains two main provisions. First and foremost it deals, along the lines recommended by the Reorganization Commission for pigs, with development schemes for organizing the production of secondary agricultural products. All products, as for example, bacon and hams, which are wholly or partly manufactured or derived from other agricultural products are regarded as secondary agricultural products. Schemes for the development of the production of secondary products may be submitted jointly by marketing boards which administer schemes for the marketing of the primary products. Thus a scheme for the marketing of bacon production would be submitted jointly by the Pig Marketing Board and the Bacon Marketing Board. If the scheme is approved, a

Development Board consisting of three members appointed by the Minister of Agriculture and a number of members elected by the constituent boards, will be set up to administer it. A Development Board will be empowered to control the production of a secondary product, to purchase by agreement premises used for its production (e.g. bacon factories) and dispose of them as it thinks fit, in order "to prevent, eliminate or reduce inefficient or excessive production." It will also be empowered to call for returns of accounts, estimates, etc. from producers of the secondary products concerned and to impose heavy penalties for non-compliance with its regulations.

The second main provision of Part II of the 1933 Act deals with the powers of Marketing Boards. It extends the powers which Marketing Boards set up under the 1931 Act may acquire, by vesting in them the virtual control of production. Thus the Potato Marketing Board is empowered to control the acreage sown by growers.

How far the Agricultural Marketing Acts of 1931 and 1933 will promote the efficiency and prosperity of British agriculture, time alone can show. This much at least seems certain: the farmers, through their Marketing and Development Boards, and the Government, through the Ministry of Agriculture, are vested with powers sufficiently ample for the drastic reorganization of British agriculture and for securing a fair deal for the producer. The danger lies, if danger there be, not in the inadequacy of the powers conferred by these Acts, but in the promotion of over ambitious schemes fostered by their amplitude.

At this point it is necessary to retrace our steps in order to consider the circumstances under which the Government initiated in 1931 a policy of drastic fiscal measures to assist British agriculture.

First of all let us consider the position of wheat growers. In the three or four years subsequent to 1928 the price of wheat had fallen by no less than 50 per cent. For this fall in wheat prices several factors were responsible, of which three are outstanding. In the first place, rapid improvements in wheat production were taking place, especially in

the principal exporting countries. Of these improvements the most important is the "combine", which reaches and threshes simultaneously and which has appreciably reduced costs in regions where topographical and other conditions favour its use. The number of combines in use in Canada rose from 791 in 1927 to 4,341 in 1928 and 7,255 in 1929. In 1929 the Argentine bought 6,214 combines, which were more than twice the number which she purchased in the previous year; while in the United States in the period 1923-1929 the sale of combines amounted to 68,000, of which two-thirds were sold in 1928-29.* Other improvements such as the development of "dry-farming" and the introduction of new seed varieties extended the cultivation of wheat into the hitherto waste areas of Canada and Australia, where the rainfall had been regarded as deficient or the summer too short, thus adding millions of acres to the wheat growing area of the world.

This tendency for wheat prices to fall in response to improvements in production was accentuated by two further factors, one political, the other monetary. The political factor was the policy of continental wheat growing countries: Italy, France, Germany all increased the restrictions on the importation of wheat *pari passu* with the growing volume of supplies. The length to which this policy was carried is indicated by the fact that in December 1933 the wholesale price of wheat was three times world parity in Italy and Germany and three and a half times in France.† In the period 1927-31 these three countries imported on the average 197 million bushels, whereas in 1934 they are in the aggregate likely to be net exporters‡. The effect of this on the world price of wheat could not have been inconsiderable.

The monetary factor which contributed to the fall in wheat prices was the world-wide deflation which heralded the approach of the slump and which substantially depressed commodity prices all round.

* Professor Ohlin's Report in *The Courses and Phases of the World Economic Depression*, League of Nations Report, 1931.

† *The Times*, March 12th, 1934.

‡ *Ibid.*

Arable farming in Britain was thus reduced to a serious plight. Nor were the adverse effects of the slump in wheat confined to reducing returns from cereals. For the fall in the price of cereals, large quantities of which are used as fodder, stimulated the production of live stock and live stock products. With the intensification of the slump however, the demand for these relatively high priced foods declined, so that, from the latter part of 1930, prices fell. And, as in the case of wheat, the prices of live stock and products was further depressed by the restrictive policy of continental countries. Thus in December 1933 the wholesale price of butter was 69s. a cwt. in London, 184s. in Berlin and Belgium and 228s. in Paris.* In 1933 the United Kingdom absorbed about 80 per cent of the world's butter exports as compared with 60 per cent. in 1928. Meat was similarly affected; in 1933 the Continent imported only about two million cwt. as compared with six million cwt. in 1928. †

The impact of these forces on British agriculture has been summed up as follows: "The fall in agricultural prices is a world problem but it has recently been particularly intense in Britain because as country after country closed its doors against agricultural products, the world's surplus agricultural products came in a 'cumulative avalanche' upon our shores and we had to meet what was nothing more than a series of bankrupt sales." ‡

In the latter half of 1931 the Government decided that British agriculture must be protected from the full impact of these forces. In November 1931 the Horticultural Products Abnormal Importations Act was passed, empowering the President of the Board of Trade to place duties up to 50 per cent. on flowers and luxury fruits and vegetables.§ On March 1st, 1932 the Import Duties Act came into force. This Act however, did not afford farmers much assistance, for although it imposed a 10 per cent. *ad valorem* duty on

* *The Times*, March 12th, 1934.

† *Ibid.*

‡ *Statist*, June 3rd, 1933.

§ The orders were for one year only, but were made permanent by the Import Duties Board.

foreign imports,* it provided for an extensive free list, which included wheat, beef, mutton, lamb, pig products and wool. Moreover, all Empire produce was exempt.

The Government also negotiated agreements with the meat exporting countries for the voluntary restriction of the export of meat to Britain, with the result that the position of sheep farmers has improved not a little, but without much success in the case of beef.

Wheat was the next commodity to be dealt with. Three forms of assistance were mooted: protection, an import quota, a subsidy to wheat growers. Protection was ruled out on two grounds. In the first place the Government feared to incur unpopularity with the electorate by taxing a staple article of food. Secondly, the Government wished to avoid the taxation of Empire wheat, which accounted in 1930 for about 42 per cent. of our total wheat imports.

The Government favoured the second alternative of restricting wheat imports by a quota. A straightforward quota, however, on imported wheat was found to be impracticable. On closer scrutiny this policy revealed a multitude of administrative difficulties, not the least important being the necessity for discrimination between the different kinds of wheat. The imposition of a quota on imported wheat would involve separate quotas for soft wheat for biscuits, wheat for feeding livestock and hard wheat for bread, otherwise a shortage of one or other type would be likely to occur.

As both these measures involved serious disadvantages, the Government decided on a hybrid scheme—the Wheat Quota Act of 1932. "The Wheat Quota," writes Lord Astor, "is a form of subsidy which is not quite a bounty, since the money required is not given directly from the State revenue, but is raised indirectly by a tax on the processed product flour, and paid by the consumer."† The object of

* The 10 per cent. duty on foreign eggs has since been changed to one of 1s., 1s. 6d., and 1s. 9d. per hundred, depending on their weight, that on foreign butter to 15s. per cwt., on cheese to 15 per cent. *ad valorem*. Certain changes have also been made in the duties on condensed and other preserved milks.

† *The Planning of Agriculture*, Astor and Murrey, p. 101.

the Act as stated officially is "to provide wheat growers in the United Kingdom with a secure market and enhanced price for home-grown wheat of millable quality, without a subsidy from the Exchequer and without encouraging the extension of wheat cultivation to land unsuitable for the crop."

This policy is carried out through the instrumentality of a Wheat Commission, whose function it is to secure that for wheat of millable quality growers shall get a guaranteed price, which is at present fixed at 45s. a quarter, less the expenses of operating the scheme. The average price received by farmers (i.e. the free market price) is ascertained at the end of each cereal year, and a "deficiency payment" is made each quarter sufficient to bring the ascertained average up to the guaranteed price (i.e. 45s. per quarter).

The funds required for these "deficiency payments" is obtained by the Wheat Commission from a levy (called a "quota payment") on every sack of flour as and when it is delivered from the mill. In order that "the extension of wheat cultivation to land unsuitable for the crop" shall not be encouraged, the quantity of wheat ranking for subsidy is not to exceed a figure of "anticipated supply" which the Minister of Agriculture promulgates for each year, with a maximum of six million quarters. If actual deliveries exceed the anticipated supply, the subsidy on each quarter is reduced proportionately. It is estimated that wheat growers will receive between £5,000,000 and £6,000,000 a year from the levy on flour, the tax on which is some 18 per cent.

Such in brief outline is the new agricultural policy which, tentatively begun in 1923, reached its climax with the Agricultural Marketing Acts of 1931 and 1933. Its constructive elements, at least in their intention, need no defence: they are attempts to remedy the defects of the price mechanism which, as we saw in the last chapter, are due to the characteristics of agricultural production and its products. Some such remedies have been found essential in all countries, in the capitalist farming of the new world as well as in the peasant farming of Europe. In England, owing largely to the system of landlordism which is peculiar to it, these remedies have been less urgent. But with the decline

of this system, they could no longer be deferred without serious harm to the agriculture life of this country.

Many of these constructive measures, indeed, may be justly acclaimed as important contributions to the reconstruction of the economic system of Britain which has been proceeding in the last few years. The Agricultural Credits Acts have placed at the disposal of British farmers "every recognized form of credit assistance." The Agricultural Produce (Grading and Marking) Acts laid the foundations of the standardization and grading of the produce of British farmers. It is the Agricultural Marketing Acts, however, which are fraught with the greatest possibilities, for they deal on effective lines with the root problems of agriculture. They make possible the orderly feeding of the market, the control and economic disposal of "surplus", and the strengthening of the producer *vis-à-vis* the middleman. Nor should the provisions of these Acts promoting the grading up of produce, research and education be under-estimated. In the following chapter, in which the three principal marketing schemes are discussed, an attempt will be made to illustrate these possibilities by concrete examples.

The fiscal elements, however, of the new agricultural policy—the assistance given to agriculture by subsidies of various kinds, quantitative restrictions, tariffs—are more open to question. As temporary expedients to tide farmers over an extremely difficult period, they can of course be justified on strictly economic grounds. It would have been a short-sighted policy indeed that would have allowed many farmers to go bankrupt for the advantage of cheap food imports, which were certain to rise in price in the course of a few years. But can they be justified as a long term policy? Are the benefits to agriculture sufficient to counterbalance the burdens which they impose on the tax payer and the consumer? And what of the injury to our export trade in consequence of the restriction of imports?

If we consider merely the economic consequences of this policy of assisting agriculture, we must return a negative answer to these questions: It is on non-economic grounds that its chief justification must rest. If on political and social

grounds it is considered undesirable that the proportion of the working population working on the land should fall below the present figure of 7 per cent.—in France and Germany the proportion is 40 per cent. and 34 per cent. respectively—if a vigorous agricultural life is regarded as a national asset, then we shall consider the new agricultural policy as justified—at least in principle.

The policy of preserving the rural life of England has come to stay, because it is supported by influential opinion from many quarters and for reasons which differ in their emphasis. Some, like Mr. Baldwin, support a policy of agricultural preservation largely because they regard English country life and the English village as a unique and supremely valuable heritage, the destruction of which by the monster of Industrialism would be a crime comparable to the destruction and poisoning of so much of our English heritage in the nineteenth century; some, again, for eugenic reasons, or because of the danger of becoming too dependent on food supplies from overseas, or because agriculture provides steadier employment than most industries, thereby promising some alleviation of the dreaded evil of unemployment.

Even the Labour Party is likely to maintain the policy of protecting agriculture, for it believes that low wages for the rural workers and a drift of labour to the towns—the consequence of a depressed agriculture—is a menace to the standards and employment of the urban worker.

CHAPTER X

THE PIG AND POTATO SCHEMES

The Pig Scheme

THAT the Reorganization Commission for Pigs and Pig Products was one of the first to be set up under the Agricultural Marketing Act of 1931 was not fortuitous. Since 1929 bacon imports had been rising rapidly, amounting in 1931 to the record figure of 10,743,000 cwt., i.e. 32 per cent. above the previous five years' average. In 1932 the 1931 record was easily passed. Nor did there seem any prospect for some time to come of an abatement in the increasing volume of bacon imports. As the home market became increasingly glutted, the price of bacon continued to fall—a trend which was accentuated by the fall of money incomes during the slump. In consequence of these two factors, the increase in supply and the decrease in incomes, the average price per score of bacon and pork pigs respectively in July, 1932, was 9s. 9d. and 10s. 1d., as compared with 16s. 11d. and 18s. 7d., the average for the period 1926-1929.* Thus the Pig industry was in a plight which called for immediate investigation.

In the last twenty years the pig population and output of pig products has been virtually stationary. The average number of pigs fed and slaughtered annually in Great Britain in the five-year period 1926-30 is estimated at 3,690,000 which gave an annual output of pig meat of 5,540,000 cwt.† In 1930 a little over a quarter of the output of pig meat in Great Britain consisted of bacon and hams, the other three-quarters consisting of pork, lard and offals. According to the 1930 Census of Agricultural Production the bacon and ham output for that year amounted to 1,238,000 cwt. valued

* *Reorganization Commission for Pigs and Pig Products, Economic Series No. 38.*

† *Ibid.*

at £6,930,000. The figures for the previous census taken in 1924 were 1,204,000 cwt. and £7,560,000 respectively.

Although bacon accounts only for about a quarter of the output of the pig industry, nevertheless it was the sole object of the recommendations of the Reorganization Commission for Pigs and Pig Products. Two main factors account for this. In the first place the unorganized state of the pig industry is more inimical to the efficiency of the production of bacon than to any other pig product. This is due to the fact that bacon is a manufactured product. Now the efficiency of the bacon factories is dependent to an important extent, as we shall see in more detail later on, on the regularity of the supply of their raw material—bacon pigs; for no manufacturing industry can conduct its business satisfactorily unless it is in a position to maintain a full and regular throughput. In the then unorganized state of the industry, however, stability of supplies of pigs to the bacon factories was impossible, depending as they did not only on the total supply of pig meat, but also on the relative price of pork, which fluctuated widely according to the season and the volume of bacon imports. Hence the bacon-pig industry held forth greater possibilities of benefiting by a reorganization scheme than the pork-pig industry.

. In the second place, there is greater scope for the expansion of the production of bacon than of pork. Pork imports are a negligible proportion of the home supplies, while the situation is almost entirely reversed in the case of bacon. Home supplies of bacon have accounted in the past for only about one-eighth of total supplies, so that there is great scope for the expansion of the bacon industry. The greater scope for expansion in the case of bacon than in pork and the greater need for stability in the supplies of bacon pigs were the two factors which explain why the Reorganization Commission devoted itself, to the neglect of the pork market, to elaborating a scheme for bacon.

The problems of the bacon-pig industry with which the Commission had to deal arise almost entirely out of the fluctuations of the supply of pig meat. The Report of the Commission, therefore, is devoted very largely to setting out

the extent and nature of these fluctuations, the causes from which they arise, and the measures necessary to eliminate them. As regards the first point, the Commission state that the fluctuations in the supply of pig meat is much greater than that in the supply of any other kind of meat. During the seven years ending May, 1932, total pig meat supplies showed a range of variation of 30 per cent. whereas supplies of all meats taken together, including pig meat, only showed a variation of $8\frac{1}{2}$ per cent., and supplies of other meats less than $2\frac{1}{2}$ per cent. This wide range of variation in supply is naturally reflected in a corresponding variation in prices. In the same period (i.e. 1926 to 1932) the prices of bacon pigs in England and Wales varied from about 22 per cent. above the trend to about 41 per cent. below.

As regards the nature of these fluctuations of supply, they occur not irregularly but in regularly recurring cycles. Having established this important fact, the Commission proceeds to analyse the causes of the pig-supply cycle. The chief factor, the Commission points out, influencing the volume of supplies of pigs at any time is the anticipation of profit or loss from pig raising by the mass of farmers. This anticipation is determined in the short run by the relation between pig prices and feeding costs. Although the decision to increase or decrease production does not affect the market supplies until many months later, owing to the time required for breeding and feeding, most farmers appear to assume that the existing relation between pig prices and feeding costs will continue. Thus farmers take steps to increase or decrease production when feed is cheap or dear relative to pig prices. But the full results of such decisions do not reveal themselves until many months later, when there comes a change in the relation between feed costs and pig prices, the increasing volume of supplies causing pig prices to fall. Producers then begin to reverse their previous production policy. In this way the pig cycle is perpetuated.

The pig cycle initiated in this way by each individual farmer ignoring the effect of the decisions of other farmers, would probably not of itself produce fluctuations in supply wide enough to cause serious harm. These fluctuations,

however, are enhanced by the influence of a cycle of feeding-stuffs prices, which tends to move inversely to the pig-price cycle, so that when pig prices are high, feed costs tend to be low and *vice versa*. Hence the ratio of pig prices to feed prices varies considerably, giving rise to wide fluctuations in production. The following table shows the movement of pig and feedstuff prices and also shows, by the figures in the last column, that a high or low ratio of pig prices to feed prices in the United Kingdom tends to be followed about twenty-one months later by corresponding low or high pig prices.

	Average price per bacon pig of 140 lb. deadweight.	Average price per 6 cwt. of feed.	Cost of 6 cwt. of feed as percentage of price of bacon pigs.	Pig price 21 months later.
August, 1924 ..	100s. 10d.	70s. 0d.	70%	135s. 0d.
May, 1926 ..	135s. 0d.	53s. 2d.	40%	99s. 2d.
February, 1928 ..	99s. 2d.	66s. 7d.	67%	137s. 8d.
February, 1930 ..	137s. 8d.	42s. 7d.	31%	63s. 10d.
December, 1931 ..	63s. 10d.	39s. 7d.	62%	

Thus the pig-price cycle, which in all countries has been the curse of the pig industry, is closely inter-related with the feeding-stuffs price cycle, but the exact nature of the inter-relation between the two cycles is uncertain. As regards Great Britain, however, the causal relation of these cycles is more evident. Since feed prices in Britain are determined by world prices, the cyclical changes in their general level are due chiefly to influences outside Britain. "At least in the United Kingdom, therefore, the influence of feed prices on production policy has been much greater than the effect of pig supplies on the price of feed."*

* *Reorganization Commission for Pigs and Pig Products*, pp. 13, 14.

Having analysed the difficulties of the bacon-pig industry, the Commission then sets out what it considers to be the real problem to be tackled. The real problem, it points out, is how to persuade farmers to adopt a consistent production programme, properly adapted to the capacity of bacon factories and to consumers' demand. The first essential, therefore, is to stabilize the supply of bacon marketed in the United Kingdom. This would encourage the planned and steady production of bacon-pigs, both at home and, ultimately, in bacon exporting countries, and might lead to a general diminution of the cycle of supplies.

Now in order to stabilize the supply of bacon marketed in the United Kingdom, three things are essential. In the first place, the pork and bacon markets must be segregated; for as the Commission points out, it is likely, at least for some time to come, that the pig-cycle in the United Kingdom will continue in the pork-pig market. To protect the bacon industry from the effects of this cycle, it is necessary, therefore, that the two markets should be segregated, if diversion to the pork market, when pork prices are high, of pigs required by the bacon industry is to be reduced.

Indeed, one of the main factors responsible for the problems of the pig industry in this country is the existence of two alternative outlets for fat pigs. In Great Britain those feeders who specialize in producing for either the pork or the bacon market are easily in a minority.* Some farmers vacillate between one type of production and the other according to their judgment of relative profit, while others aim at neither market in particular. Now the advantages of the existence of an alternative market for pig meat are far outweighed by the disadvantages. "The fact that curers in Britain have to compete for their raw material with the pork market is one of the main reasons why Britain's bacon factories are unable to maintain a full and regular through-put."† —a fundamental condition of low cost production. To produce economically the factories require not only a high average through-put but also a regular supply all the year

* *Reorganisation Commission for Pigs*, p. 16.

† *Ibid.*

round. The pull, however, of the pork market fluctuates, being stronger in winter than at other periods. "Many farmers and dealers favour the pork market in Winter, especially round Christmas, and only look to the factory as an outlet when the pork market fails them."* The fluctuation of supplies to the factories is further accentuated by the volume of imported supplies of bacon. When bacon imports are large bacon prices fall, thereby giving farmers an incentive to turn from the bacon to the pork market.

The irregularity of the supplies of pigs to the bacon factories is illustrated by the following table, which shows the variations in arrivals of pigs at a typical English factory. ‡

IRREGULARITY OF SUPPLIES OF BACON PIGS

	Average supply of Bacon Pigs in the years 1923-29.		Average Weekly Supply in 1929.		Weekly supplies in first 12 weeks of 1929.
	Weekly.	Annual.			
1923	676	35,100	January	542	1st week 655
1924	826	43,000	February	398	2nd .. 525
1925	797	41,400	March	692	3rd .. 534
1926	636	33,100	April	731	4th .. 444
1927	453	23,600	May	529	5th .. 441
1928	650	33,800	June	535	6th .. 392
1929	523	27,200	July	559	7th .. 377
			August	590	8th .. 380
			September	593	9th .. 778
			October	523	10th .. 705
			November	423	11th .. 356
			December	206	12th .. 652

The table shows that while in 1924 the factory dealt with 43,000 pigs in 1927 it dealt with only 23,600. The range of variation in the average weekly supplies is even more marked. In 1929, as the table shows, weekly receipts varied from 731 in April to 206 in December. The effects of irregularity of supplies on the cost of curing is, as the Commission shows, considerable. An increase from 648 per week to 902 lowered

* *Reorganization Commission for Pigs*, p. 16.

‡ *Ibid.*

the cost of curing from 9s. 2d. per cwt. to 7s. 9½d., i.e. 15 per cent. It is estimated that cost would be lowered by 45 per cent, if the factory were worked at maximum capacity. Thus a policy which increased the regularity and the volume of the supplies of bacon pigs to the factories would do much to raise the level of efficiency of the British bacon-pig industry.

The segregation, then, of the pork and bacon markets, which will reduce the diversion to the pork market, when pork prices are high, of pigs required for the bacon industry, is the first essential in stabilizing the supply of bacon pigs. Secondly, it is necessary to protect the bacon industry from the effect of the variations of feeding stuff prices. This consideration rules out a policy of stabilizing bacon pig prices. If bacon pig prices were completely stabilized, net returns to farmers would still vary inversely with feed costs, and it would be impossible to prevent variations in the supply of pigs to the factories. It is necessary, therefore, as the Commission points out, to devise a method whereby the prices of bacon pigs are based on feed prices.

Finally, the stabilization of the supply of bacon pigs necessitates the regulation of bacon imports. Bacon imports, as we have seen, largely determine bacon prices. When imports are large bacon prices fall and the supply of pigs to the factories fall. Further reasons for the regulation of imports are adduced below.

The policy proposed by the Commission to effect these essential conditions of stabilizing the supply of bacon pigs is the ear-marking for the bacon industry annually a certain volume of pig production. The only method by which this policy can be carried out is by the contract system, i.e. "an organized system of contracts between feeders and curers with provision for regular deliveries throughout the year".*

For this system to be effective two provisions are required: (1) that all other outlets for sale of bacon should be closed. This necessitates that sale by curers of bacon made in this country from pigs not sold on contract must be made impossible. (2) that the contract period must be for more than six months, otherwise too many opportunities occur for

* *Reorganization Commission for Pigs*, p. 16.

feeders to switch from bacon to pork and vice versa. A yearly contract period therefore is recommended. The effect of this recommendation would be that, before the close of each calendar year, producers would be required to sign contracts in respect of all pigs which they desired to consign to bacon factories during the coming year.

As the contract system requires producers to deliver to bacon factories pigs not yet born, it is only reasonable that contracts should carry a guarantee that any producer of reasonable efficiency shall not incur a loss through his contract for reasons, such as high costs of feeding stuffs, which were beyond his control. On the other hand, bacon curers could not be expected to shoulder the obligation of paying to the producer a price which might prove unjustified by the price at which bacon could be sold. To reconcile these conflicting interests, the Commission proposed that a firm basis price for pigs, limited to and varying with a standard cost of production, should be fixed, an important element of this standard to be the cost of feeding stuffs. Thus producers would be assured of a minimum price. The Commission also recommended that producers and curers should negotiate from time to time a margin of profit, which would vary, of course, with the price of bacon. In this way it was considered, the interests of the curers would be protected.

In order, however, that this contract system shall work successfully, it is necessary for supplies of bacon from overseas to be regulated. Stability of production at home can only be secured if imports are not subject to wide fluctuation, as they have been in the past. As we have seen, stability of production at home can be effectively secured only by a contract system under which the farmer contracts to supply a certain number of pigs over a certain future period. But the farmer, if he is to be induced to plan ahead in this way, will require some certainty as to the price he will get from the curer. If the curer, then, is bound to take pigs from the farmer at a guaranteed basic price (subject to fluctuation according to the price of feeding stuffs) over an extended period, he should, in return, be secured a reasonable chance of selling the finished product without loss on a regulated

market. The only method by which this object can be effected is by the regulation of bacon imports by quota.

A quota on imports is particularly necessary in the case of bacon on account of the wide fluctuation of bacon imports. The extent of these fluctuations are due not only to the pig cycle described above. It is also due to a factor which is operative in the case of Britain alone. Foreign bacon curing industries have been built up to supply the British market. Bacon is seldom eaten on the Continent so that foreign bacon-curing industries have no other outlet of any consequence for their product. "Hence," as the Commission points out, "a violent but unstable competition is focussed on the home producer."

These recommendations of the Reorganization Commission were accepted by the producers and curers by an enormous majority vote and, in 1932, the Pig Marketing Board and the Bacon Marketing Board, composed of representatives of the producers and curers respectively, were set up to operate the marketing provisions of the scheme.

In the first year of the operation of the scheme, however, the provision in the contracts between producers and curers by which the former were guaranteed a minimum price was found to be too favourable to producers. Consequently, such an overwhelming supply of bacon pigs was forthcoming that the market was swamped, the Board of Trade was compelled drastically to restrict imports, while the Treasury had to make advances to curers to support prices. Moreover the supply of pigs for the pork market was correspondingly diminished and pork prices rose.*

In 1934, therefore, the contract (for 1935) was modified in two important particulars. In the first place, the guaranteed minimum price was substituted by a profit-sharing arrangement. Under this arrangement the contract price the producer receives is to be determined month by month partly on the cost of feeding stuffs and partly on the selling price of English bacon. In the second place the contract (for 1935) requires producers to maintain more level deliveries to the factories. They must undertake to consign not less than

* *The Economist*, March 3rd, 1934.

a quarter of their annual output in the first third of the year and not more than 45 per cent. in the last third of the year. This will enable the Board of Trade to allocate import quotas more regularly throughout the year. Inducements to supply a regular quantity of bacon pigs month by month under the scheme are offered by the bonus payments to be made to producers who supply a full proportion of pigs during the first third of the year, when the factories are normally short of supplies. The bonus payments will be made from a fund to be created by the curers, and it has been calculated that the extra payment payable to producers who supply a full third of their output in the first third of the year may amount to as much as 1s. per score or about 8s. a pig for the four months.*

Finally a word remains to be said about the long term planning of the bacon-pig industry. At the end of 1934 this important aspect of the scheme was provided for by the setting up of the Bacon Development Board. This is composed of three members from each of the two Boards operating the Marketing Scheme and three appointed by the Ministry of Agriculture. Two of its tasks are of especial importance: the rationalization of the bacon factories and the levelling up of the standards and efficiency of the producers. The Re-organization Commission commented strongly on the excessive number of the bacon factories, on their small average size, their unsuitable geographical situation, and the deficiency in many cases of their technical practice. The Development Board possesses adequate powers to remedy this situation. It is empowered to close redundant or inefficient factories, to get others built where they are required, and to see that they conform to the necessities for efficient operation.

Nor can the pig bacon industry be regarded as in a satisfactory state until the standards and efficiency of the producers has been levelled up. The Development Board, therefore, will have much to do in the way of education and research before national standards for bacon comparable to those of overseas producers are attained.

* *The Times*, October 29th, 1934.

The Potato Scheme.

The difficulties of potato growers are due in the main to factors characteristic of many agricultural products, namely, variations of crop yields together with inelasticity of demand. It is these factors which account for the violent fluctuations of potato prices from season to season. These fluctuations of prices not only cause serious losses to farmers, but also tend to accentuate themselves; for "They tend to bring about unwarranted expansion and contraction in the acreage grown, and the problem of the casual surplus thus perpetuates itself."*

The crux of the problem of potato marketing is succinctly put by the Report on the Organization of Potato Marketing. "There is," the Report points out, "a definite limit to the quantities of home grown potatoes that are absorbed annually into consumption in Great Britain at prices satisfactory to growers. This limit would seem to be in the neighbourhood of four million tons, and when supplies exceed this figure the market is faced with the now familiar 'surplus' problem. In some years as much as one million tons are produced surplus to the normal food requirements of the country. . . . It is clear that the stabilization of prices from year to year, and especially the protection of grower's prices in years of heavy supplies, is a matter of regulating the quantities offered by growers to the ware market, so that they correspond more closely to normal consumptive requirements."†

The effect of the two factors, variations of yield and inelasticity of demand, are reflected in the following fluctuations of seasonal prices during the period 1922-23 to 1929-30. In this period the average wholesale prices for the period September to May in each year have fluctuated between 71s. 5d. and 186s. per ton.‡ Average monthly prices, however, during the same years, have varied even more—between 55s. 6d. and 285s. 6d. per ton.§ Thus

* *Report on the Organization of Potato Marketing, Economic Series No. 34, Ministry of Agriculture, p. 42.*

† *Ibid.*, p. 42.

‡ *Ibid.*, p. 39.

§ *Ibid.*, p. 39.

potato prices have during these seasons often lost all relation to cost of production.

In addition to these fluctuations of prices and supply from season to season, the "surplus" problem as it is called, the potato trade is also characterized "by wide and erratic fluctuations both within the same market and between one market and another at a given time, and also from time to time within a given season".* As regards the lack of uniformity of producers' potato prices at any one time, the Report on Potato Marketing states that "potatoes of about equal quality may be changing hands in the *same* market at the *same* time at prices often differing by as much as £1 per ton.† The disparity between producers' prices in *different* markets at any given time must be even greater.

As regards the fluctuations of prices within a given season, a very interesting marketing problem presents itself, the nature of these fluctuations being quite different from what economic theory would lead us to expect. Theory would suggest that, apart from abnormal circumstances, the prices of main crop potatoes within the marketing season would be fairly stable with an upward trend throughout the season, reflecting the costs and losses incurred in holding and storage during the winter months. Our expectation that this would be the normal course of events is increased by the fact that the price level in Great Britain in any season is determined almost entirely by the size of the home crop, the imports of main crop potatoes being relatively small.

In two recent successive seasons, however, prices within the season have taken exactly the opposite course, and in a most pronounced degree. In the marketing season 1928-29, wholesale prices fell by no less than 28 per cent. between September and May. In the following season 1929-30 the fall was even greater; between January and April alone prices fell by 32 per cent.‡ In other seasons

* *Report on the Organization of Potato Marketing*, p. 37.

† *Ibid.*, p. 37.

‡ *Ibid.*, p. 38.

prices have risen out of all proportion to the costs of holding and storage. Between October 1923 and May 1924, wholesale prices rose by 44 per cent.; in January 1924 they were 28 per cent. higher than in the previous month. In 1928, between February and May, prices increased by 48 per cent.*

These price differences from market to market and from time to time within the season indicate the need of the potato trade for a scheme of orderly marketing. They show that middlemen have not adequately performed their function of evenly distributing supplies over the marketing season, but have sometimes under-supplied and sometimes over-supplied the market in relation to the size of the available crop. This lack of adjustment of supply to demand throughout the country and within the season, the Report on Potato Marketing points out, is largely due "to lack of knowledge of market conditions . . . market transactions are not carried on in such a way as to facilitate the rapid collection of market news."†

The method of market transactions brings us to a third characteristic of the potato trade, which is largely responsible for the weakness of the system prevailing before the institution of the Potato Marketing Scheme in 1934. This characteristic is the lack of standardization of both produce and trade practices. As regards the lack of standardization of produce, the fact that fifty varieties of potatoes are extensively grown‡ obviously complicates the problem of marketing, thereby adding to the costs of distribution.

It is, however, the lack of standardization of trade practices which has been primarily responsible for the lack of orderly marketing. The first essential of an efficient marketing system is a generally adopted definition of a good marketable sample. In the potato trade, however, the standard varies with market conditions and the relative bargaining strength of the buyer and seller.§ Neither the dressing of potatoes, i.e. the elimination of dirt and of

* *Report on the Organization of Potato Marketing*, p. 37.

† *Ibid.*, p. 37.

‡ *Ibid.*, p. 34.

§ *Ibid.*, p. 34.

damaged tubers, nor the size of the tuber, which is also important, were subject to standardized practices. Under such conditions it is frequently necessary for buyers to inspect consignments and often to redress them on arrival.

Lack of standardization is also manifested in market transactions. "Commission and other charges are often not definitely fixed and sometimes not even stated in the sales note, but appear to be varied according to what the agent thinks the producer will accept. Contracts between grower and wholesaler are seldom written or based on any definite standards."*

The inefficiency which has prevailed in the marketing section of the potato trade can be attributed in the main to this lack of standardization in produce and trade practices. In the first place the vagueness in market conditions described in the last paragraph creates a lack of confidence between buyers and sellers. Secondly, the absence of authoritative and generally recognized standards as regards marketable samples has made an adequate market intelligence service impossible. Without such recognized standards how are wholesalers, and still less growers, accurately to compare price levels in different markets? Such conditions, too, discourage wholesalers and retailers from paying more for a better grade product, "either because they lack confidence in its reliability or because they are uncertain of being able, in turn, to obtain a sufficient price for it."† Thus, growers have had little incentive to raise the quality of their product.

Moreover, the absence of standardization of produce and packing adds to the cost of marketing and probably even to the costs of production. "It is likely that the average cost of growing would be reduced if producers' efforts were concentrated on a few varieties of exceptional reputation. It is certain that marketing costs are increased by the present multiplicities of product and type of containers. Under such conditions it is frequently necessary for buyers to inspect consignments and often to re-dress them on arrival;

* *Report on the Organization of Potato Marketing*, p. 34.

† *Ibid.*, p. 35.

packages . . . may have to be re-weighed. . . . Finally the general lack of definition in market transactions and contracts leads to disputes, with the usual waste of money and energy."*

From the foregoing analysis of the weaknesses of the potato trade it can be seen that any comprehensive scheme of reorganization must aim at three things: (a) standardization, (b) improved market intelligence, (c) control of supplies with special reference to surplus. Both (a) and (b) are straightforward problems which do not call for any further mention here. It is the problem of controlling supplies which will be the acid test of the Potato Marketing Board.

The "surplus" problem, we have seen, arises from the fact that the demand for potatoes is inelastic. Hence in a season in which the potato crop is above normal requirements, prices fall to levels which are unremunerative to producers. The problem, therefore, is to protect growers' prices in years of heavy supplies. By protecting farmers from losses the unwarranted expansion and contraction of the acreage grown which tends to perpetuate the casual surplus will be eliminated.

There are three possible types of scheme. The most effective scheme would be one which regulated the flow of supplies on to the market through control of time, place and terms of sale. Control would be more complete and more flexible than would be possible with either of the other types of schemes referred to below. The administrative difficulties, however, which would be involved in this type of scheme were greater than the Potato Board were willing to undertake.

Secondly, regulation of supplies to the ware market could be effected by a quota, each grower being allowed to market a certain proportion or quota of his crop. Regulation by quota, however, would not allow of adjustment during the course of the season, without inflicting serious injustice. There would also be the difficulty of calculating in advance the volume of the crop.

The third alternative—that chosen by the Board—is regulation by grade. This mode of regulations consists in

* *Report on the Organization of Potato Marketing*, p. 36.

imposing a minimum grade standard, varied from time to time according to market conditions ; sales of potatoes below the standard being illegal.

Ideally, a standard grade for potatoes should be a combination of two factors, quality and size. As, however, it is impracticable to differentiate between quality standards with sufficient accuracy for purposes of quantitative control, the Board has decided to rely on the size factor alone. Accordingly the Board intends to use riddling provisions in order to regulate the flow of market supplies. Potatoes below standard will, of course, be used for stock feeding or for conversion purposes.

Regulation of the minimum size of potatoes to be sold is the weapon of the Board for dealing with casual surplus ; that is to say, with surplus due to bumper crop yields. This weapon is supplemented by that of production control. To prevent unwarranted expansions of production the Board, in its first season of operation, has set a limit to the acreage of potatoes to be grown in England, Scotland and Wales. The farmer who grows more than his " basic " acreage—in most cases the acreage he had under potatoes in the previous year—is liable for the payment of a levy of £5 per acre on the excess. As this stabilization policy is liable to be upset by imports, the Potato Board is relying on the co-operation of the Board of Trade in arranging the requisite regulation of imports.

CHAPTER XI

MILK SCHEME

THREE principal factors are responsible for the complexity of the problem of the marketing of milk, one concerned with the nature of the product, one with the nature of the market, while the third arises from the conditions of production. These three factors explain the aims of the Milk Marketing Scheme.

The first factor is the highly perishable nature of milk. A sales organization for fresh milk must be framed on emergency lines, so that it may reach the consumer within from twenty-four to forty-eight hours of the time when the cows were milked. Thus the cost of distribution in the case of milk is relatively high, involving as it does rapid transport and elaborate equipment for the handling of milk. These requirements for the distribution of milk largely account for the fact that the business is dominated by a few very large firms, such as the United Dairies, in each of the main distributing areas. Hence the great disparity in bargaining power between the large-scale buyers of milk on the one hand, and small-scale scattered producers on the other. One of the primary objects of the Milk Scheme is to remedy this situation.

The perishability of milk also accounts for another feature of the industry, namely, the prevalence of forward selling on the part of the producer. In order to safeguard himself against the risk of milk deteriorating on his hands, a producer must contract with a distributor for the purchase of the bulk of his daily supplies for a considerable period ahead. Thus it has been the usual practice since the war for producers to make such contracts extending for six months and sometimes for a year. Clearly this system of long term contracts under which the distributor binds himself to pay a price for milk fixed for many months ahead—requires a reasonable

stability of the market. Undercutting, for example, by concerns like the Creameries, who are not regular distributors in the liquid market, is obviously incompatible with a system of long term contracts.

The second factor in the milk marketing problem is the dual market for milk, one of which is substantially more remunerative than the other. Thus in 1931-2 the average liquid milk (producers' price was 12·12d. per gallon, whereas the price of milk destined for manufacture was only 4·75d.* This disparity of price is to be accounted for by two factors. The more important of these is the fact that the liquid market, unlike the manufacturing market, requires a daily supply which fluctuates little from day to day or from season to season; and this regularity of supply entails extra cost of production and distribution for reasons stated below. The conversion milk market on the other hand, is supplied mainly from milk which is surplus to liquid requirements. This surplus, which is an important factor in the milk marketing problem, arises partly from the fact that distributors, who usually buy the whole of a producers' output, have to deal with variable daily supplies. Supplies, which, in this way, are surplus to the requirements of the liquid-milk market, are largely converted into cheese. "In fact the main role of the factory cheese process in the dairy industry of this country is the conversion of milk for which no other use can be found."† "Surplus" also arises from the seasonal variations in supply, milk being naturally more abundant in Summer when grazing conditions are at their best.

The higher price in the liquid market is due not only to the higher costs which the producer and distributors incur in supplying the needs of that market. It is due also to the natural protection which the liquid market enjoys from foreign competition. New Zealand, for example, can compete with the home producer in supplying the British consumer with butter and cheese but not in supplying fresh liquid milk.

* *Report of the Reorganization Commission for Milk, Economic Series* 38, p. 43. The manufacturing price given above is that fixed on the cheese-price basis, which is explained later on.

† *Ibid.*, p. 47.

The third factor in the milk marketing problem is the conditions of production. The most favourable areas for milk production are the grassland areas of the West, which, in consequence, are the chief milk-producing areas. Here milk production is largely concentrated in the Spring and summer months when there is a plentiful supply of grass. Spring calving, therefore, tends to be the most economic. Improvements in transport, however, have in recent years given many of these areas access to the London liquid milk market, in which the price is higher, thereby providing an inducement for deviating from a policy of summer milk production. But in those areas which are still remote from a liquid market, there are no inducements to alter the natural seasonal variation in production. Milk production in such areas is generally associated with calf rearing and butter making or with farm cheese production. The same considerations apply in the case of producers who send their milk to creameries, which are mainly concerned with cheese-making. " Here again, the cost of the raw material is lowest during the summer months and grass-produced milk is more suitable for cheese-making than milk from stall-fed cows."*

Milk is also produced in the arable areas—Suffolk, Norfolk, Essex, etc.—but on a smaller scale than in the grassland areas of the west; though, since 1922, largely on account of the decline in cereal prices, dairying in the arable areas has increased. In these areas the seasonal fluctuation of milk production is much less pronounced. Most arable farms lend themselves more easily to winter milk production: the use of farm-grown feeding stuffs in place of the more expensive purchased concentrates, the employment of labour for stall feeding, which involves extra work when other farming operations are largely in abeyance—these and other factors favour winter milk production.

Apart from the main milk producing areas, a considerable amount of milk production is carried on in numerous areas irrespective of the suitability of productive conditions, namely, in all those areas adjacent to consuming centres: the

* *Reorganization Commission for Milk*, p. 20.

economies in transport being sufficient to offset any disadvantages arising from less suitable conditions of production.

These factors—the high degree of perishability of milk, the division of the milk market into two main sections, the liquid market and conversion-milk market, the former offering a substantially higher price than the latter—these factors, together with the productive conditions described above, have been dwelt on at some length because an understanding of them is essential if the problems of the marketing of milk are to be appreciated.

Before describing the milk scheme which was set up in 1933 to cope with these problems, a brief outline of the chief developments in the marketing of milk in recent years may be helpful. Before the war there was no collective bargaining between producers and distributors, agreements being made individually and generally on a purely verbal basis. Contracts were usually made for a period of six months, sometimes for a year. The length of contract between producers and distributors in the milk trade is due, as we have seen, to the perishability of milk, which makes it essential that a certain market is kept open to the producer for a considerable period ahead. The producer favoured the twelve months contract, as he frequently found it difficult on a six months contract to sell all his milk in the summer months, when he was often obliged to take a very low price.*

“It was customary for milk to be retailed at the same price all the year round, but the wholesale price was higher in winter than in summer. Under these conditions, the higher profits made by distributors in summer compensated for the smaller margin obtained in the winter months. Thus, in the pre-war days, the distributor undertook the function of equalizing the retail price of milk throughout the year as well as being normally responsible for a portion of the surplus.”†

The principal development in the milk trade after the war was the introducing of collective bargaining between producers and distributors. In the months, however,

* *Reorganization Commission*, Appendix B.

† *Ibid.*, p. 174.

following the termination in January, 1920 of the control improvised during the war, the industry tended to revert to the practices of pre-war days. Farmers still continued to sell on an individualistic basis. They soon found, however, that their position was even less favourable than formerly, as the interests in the wholesale trade, stimulated by wartime-control, had in many parts of the country achieved a considerable degree of unification. The balance of bargaining power, which even in pre-war days was in favour of the distributors, was turned still further against the producers.

In the autumn of 1920 the producers represented by the National Farmers' Union entered into negotiations with the National Federation of Dairymen's Associations, but they reached no agreement. In 1922, however, the sharp decline in the price of summer milk revealed to farmers the serious nature of their position. The milk price index for May and June in 1922 was 27 per cent. and 28 per cent. respectively over the pre-war level, while the general index for agricultural products was 69 per cent. and 64 per cent. over the base. "The balance of bargaining was . . . more definitely than ever in the purchasers' favour and it was upon producers that the shock of falling prices fell."*

This fall in the price of milk provided the immediate stimulus to the introduction of collective bargaining in the late summer of 1922. In London the permanent Joint Committee was set up, composed of representatives of the N.F.U., on behalf of producers, on the one hand, and of the National Federation of Dairymen's Associations, the Amalgamated Master Dairymen, Ltd., the National Association of Creamery Proprietors and Wholesale Dairymen (Inc.), on behalf of distributors and manufacturers, on the other. Primarily, the function of the Joint Committee has been to provide the machinery for negotiating the producers' milk prices. Since 1922 wholesale milk prices have been regulated by annual agreement negotiated by the Committee. In other large centres of population, Area Joint Committees have negotiated regional agreements, which have largely

* *Reorganization Commission*, p. 176.

followed the London agreement, with adjustments to meet local conditions.

The prices thus negotiated by collective bargaining, however, have not been universally accepted in practice. "Many producers and distributors do not belong to any of the organizations represented on the negotiating bodies, and, further, the terms negotiated are not enforceable either upon producers or distributors, even though members of their respective organizations. There is no more than a moral obligation on the part of the negotiating parties to abide by the terms agreed upon, and contracts on other terms have been freely made by producers and distributors."*

Nevertheless the negotiations of the Joint Committee were by no means without influence on the level of producers' milk prices. As the Commission has pointed out "the annual agreements have provided a kind of standard or guide, and have undoubtedly exercised a considerable influence over liquid-milk prices and conditions of sale during the past ten years."† At first the effect of the scheme was confined to the London market, but in the course of the next few years its influence made itself felt in the other principal consuming areas. This point is illustrated by the adoption in 1925 by the Permanent Joint Committee of a resolution declaring "that the conditions and terms of the N.F.U. scheme should apply nationally, but subject to modification in the light of local circumstances. In the event of failure by any area Joint Committee to agree to any proposed modifications of the scheme-terms for their area, this Committee recommends that the matter should be referred to the Permanent Joint Committee for decision."‡

The N.F.U. scheme was not merely an attempt to establish machinery for collective bargaining between producers and distributors as to producers' milk prices. It was also a constructive marketing scheme in the sense that it laid down provisions for dealing with the chief difficulties peculiar to the industry. By regulating the conditions of sale, it sought

* *Reorganization Commission*, p. 11.

† *Ibid.*, p. 11.

‡ *The Fluid Milk Market, Economic Series, No. 16.*

to deal with the problems of seasonal fluctuations of supplies and of the dual market for milk, the liquid and conversion markets, in which the value of milk is subject to considerable divergence. The latter problem was becoming increasingly urgent, as the margin between prices for milk sold liquid and the value of milk for conversion was much wider than the margin in pre-war days—a margin which in the ensuing period continued to increase, causing thereby a new crisis in the industry.

Thus the aim of the N.F.U. scheme was twofold: (1) that the producer should receive a price for his milk according to the use it was put; (2) to reduce the volume of "surplus" milk by placing a premium on level supplies. To this end the Joint Committee drew up standard conditions for contracts between producers and distributors. In the first place, the Committee recommended producers and distributors to make contracts a year in advance at prices fixed in the present. This, it was urged, by giving a greater degree of security and certainty to both parties, would allow plans to be made to cover both winter and summer conditions.

In the second place, the scheme sought "to secure that the producer selling milk on contract in accordance with its provisions received the liquid milk price for supplies actually sold liquid, and a price in line with their estimated manufacturing value for supplies in excess of this quantity."* This was an important departure from the practice which had prevailed in pre-war days, when it was usual for milk to be bought at a flat price, irrespective of whether it was to be consumed liquid or manufactured. The new policy promised advantages to both parties. To the distributor it meant the re-allocation of the risk involved through the existence of surplus, which in future he was to pay for at its value for conversion purposes. To the producer, it promised to minimize the unfortunate effect of summer surplus on the prices he received, for the new system encouraged a more level supply of milk all the year round.

The method adopted to ensure a more even supply of milk, i.e. to stimulate the production of winter milk, was the

* *Reorganization Commission*, p. 12.

simple one of assuring to the producer the payment of liquid milk rates on a higher proportion of his milk in the winter months. To understand the provisions by which this object was obtained it is necessary to bear in mind the usual terms on which the distributor agrees to take over the producers supplies. The agreement of 1922 made provision for the adoption of two alternatives: a producer could sell his whole dairy, or he might sell on a "maximum and minimum" basis. If the producer sold on the former basis—a basis which later on became more and more the rule—the buyer would be responsible for the conversion of supplies in excess of liquid milk requirements. Provision, however, was made for the purchase of these excess supplies, which were estimated on an agreed basis at manufacturing rates. If, on the other hand, the producer sold on the "maximum and minimum" basis, he would himself be responsible for supplies in excess of the maximum stipulated in the contract, and, in addition, he was liable to pay a fine on every gallon below the minimum specified.

We now come to one of the most important provisions in the 1922 agreement—the method by which excess supplies, i.e. supplies for which the producer received only manufacturing rates, were determined. According to this agreement each producer was to determine a "standard quantity", as it was termed. A producer's "standard quantity" equalled his average weekly deliveries during the four months November to February inclusive—a period during which production approximated closely to the requirements of the liquid milk market. The "standard quantity", thus ascertained, served as the basis for determining the proportion of a producer's supplies which were to be paid for at liquid rates. The whole of a producer's supplies during November to February, "the accounting period", as it was called, was to be paid for at the full liquid rate. In the two months October and March, which respectively preceded and followed the "accounting period", a producer was to receive the liquid rate on 100 per cent. of the "standard quantity", while in the remaining period of the year, April to September, he was to receive the liquid rate on 110 per cent. of the "standard

quantity". As a producer's supplies would be considerably heavier in the April-September period, he would in this period receive the liquid rate on a smaller percentage of his production, although on a larger absolute amount. Supplies in excess of these quantities were defined as manufacturing milk, and it was laid down in the agreement that the price of such milk should be assessed each month on the basis of the average quoted prices of Canadian and New Zealand cheese of Finest and Fine quality during the preceding month. The price of manufacturing milk per gallon was to be the price per lb. of cheese determined in this way, less an allowance of 2d. for the cost of manufacture.

Thus the N.F.U. scheme not only sought to assure that the producer selling milk on a contract in accordance with its provisions should receive the liquid price for supplies actually sold liquid and a fair price for the supplies in excess of liquid requirements. It also assured a premium to the level producer, who was paid the liquid price on a larger proportion of his supplies. Thus a stimulus was given to the production of winter milk, for the average returns of a producer depended on his production in the winter months.

During the next seven years from 1922-3 to 1928-9, the fundamental principles of the original scheme were retained in the annual agreements made by the Joint Committee. Modifications, however, were made in the months constituting the "accounting period" and in the percentages of a producer's supplies which were to be paid for at liquid rates.

The agreement of 1929-30, however, abandoned the principle of determining the producer's quota payable at liquid rates on the basis of his actual production during certain specified months. This principle had had two unfortunate results. As the Commission pointed out: "Whatever the percentage payable at liquid rates under this method, it was always in the producer's interest that his production in the "accounting period" should be as large as possible; the effect of the scheme, therefore, was to stimulate production during the "accounting period", to bring about an unwanted winter surplus, and to induce producers whose natural conditions favoured cheap summer production to abandon

their natural advantages in the pursuit of the liquid milk market." Thus in the long run the quantity payable at liquid rates tended to increase irrespective of any changes in the requirements of the liquid milk market.

The agreements in the four years from 1929 to 1932 were based on an entirely new principle, the "declared quantity", which took the place of the "standard quantity" principle. On this new basis each producer was to give his own estimate of what his daily deliveries would be. A further elaboration was the introduction of three classes of contracts with three scales of prices. Class I contract allowed a variation of 10 per cent. either way off the "declared quantity." Producers contracting under this class received the highest scale of prices. Class II contract allowed a variation of 20 per cent. and Class III, 50 per cent. In each class, supplies in excess of the "declared quantity" plus the percentage variation allowed, were again to be valued on the cheese price basis—at 2d. per gallon less than the average price per lb. of New Zealand and Canadian cheese.

In 1931 an important modification of the terms of the 1929 agreement was introduced. A new class for the sale of milk, known as Class IIb, was devised to take the place of Class III, under which a producer was allowed a variation of 50 per cent. in his daily deliveries. Producers selling under Class IIb, which for reasons given below became more and more usual, were "no longer required to establish a basic quantity, either on the results of certain months or on his own declaration; the contract provided for the delivery of the whole of the producer's supplies. Payment was on the basis of a negotiated percentage at liquid milk rates and the remainder at manufacturing rates computed on the cheese-price basis. The percentage at manufacturing rates varied from month to month, being higher in the summer when supplies were most plentiful and nominally averaging 20 per cent. for the year.* In the agreement of the following year the producer had to yield further ground, the average percentage payable at manufacturing rates being raised from 20 to 25 per cent. He, however, had some consolation by the introduction of a

* *Reorganization Commission*, p. 14.

proviso by which buyers undertook that, should their sales in the liquid market of milk bought under Class IIb terms exceed 75 per cent. of their purchases from all sources, they would refund to producers the difference between the liquid milk price and the manufacturing price on the excess quantity so sold.

The price-structure plans which were built up under the influence of collective bargaining and which we have just analysed achieved considerable success in several directions ; but in the course of their operation they revealed one serious weakness which threatened to bring down the whole edifice. While these price-structure plans provided for the needs of the distributor, assuring him that excess supplies need only be paid for on the basis of their potential value for manufacturing purposes, they made no provision to enable manufacturers requiring milk purely for manufacture to obtain their supplies at prices which would make it possible for them to compete with imported milk-products. This omission has been responsible on several occasions for the refusal of the National Association of Creamery Proprietors and Wholesale Dairymen to be parties to the prices negotiated by the Permanent Joint Milk Committee.

The consequences of this weakness common to all the price-structure plans since their initiation has been summed up by the Reorganization Commission as follows. "The creamery proprietors contend that circumstances have forced them and other manufacturers to buy outside the agreement terms or to invade the liquid market ; they have, in fact, generally continued to buy at a flat rate. As a result of competition from buyers for the liquid milk market, however, these terms have generally had to be higher than the milk was worth for purely manufacturing purposes. The inevitable result has been that such buyers have sought more and more to take advantage of the higher price prevailing in the liquid milk market, and, in order to secure an entry into and to maintain a hold on that market, they have resorted widely to the practice of cutting the prevailing price. The absence of provision to make such milk as is not destined for the liquid milk market available in quantity to manufacturers at prices

in accord with actual raw material value is undoubtedly one of the gravest weaknesses of the terms that have been negotiated; besides being a disturbing factor in consuming centres, it has tended to make manufacture more and more a secondary consideration to the liquid milk market."*

The trend of events, moreover, was tending to make this situation more acute; during the period of the negotiated agreements a heavy fall had taken place in the world value of milk. This fall was reflected in the prices of dairy products, especially butter and cheese, both of which slumped to the lowest level of prices recorded. In consequence the disparity between the value of milk in the liquid market and its value for manufacturing purposes became more and more marked, as the following table compiled by the Reorganization Commission shows.

Year.	Producer's Liquid Milk Price. Pence per gallon.	Manufacturing Value on Cheese-price Basis. Pence per gallon.	Disparity. Pence per gallon.
1913	8·75	4·80	3·95
1922-3	15·62	9·63	5·99
1931-2	12·12	4·75	7·37

Thus the position of British manufacturers of milk products was becoming more and more difficult. To meet this situation, they extended the practice, to which reference has already been made, of disposing of part of their supplies in the liquid milk market—a practice which not infrequently obliged them to cut prices, especially in the wholesale and semi-retail trade. According to the Commission, "instances have been cited where large institutions have been supplied at prices even lower than those payable to the producer for standard quantities supplied under the negotiated agreement."†

From the extreme individualistic point of view this situation was quite satisfactory. It was just another

* *Reorganization Commission*, p. 45.

† *Ibid.*, p. 67.

example of the collapse of an artificial structure which prevented the consumer from deriving the advantage of cheaper and more abundant supplies of milk. Such an attitude, however, overlooks the factors peculiar to the milk trade. It overlooks the fact that uncontrolled competition threatened the whole structure of orderly marketing; without which neither the production nor distribution of a highly perishable commodity like milk, which is naturally subject to daily and seasonal fluctuations of supply and which is required in regular daily quantities in its principal market, can be conducted economically.

These characteristics of the demand for and supply of milk necessitate, on the one hand, the existence of large-scale distributing concerns with elaborate plant to ensure an hygienic and regular delivery of milk in the main consuming centres. On the other hand, they necessitate a system of long term contracts and of collective bargaining, if producers are to operate under reasonably secure conditions and if seasonal shortages and gluts are to be avoided.

In 1932 the whole system of long term contracts, collective bargaining and orderly marketing was threatened with collapse. "The farmers' most skilled negotiators", writes Mr. L. A. Easterbrook, "had failed to prevent the terms of the milk contracts becoming worse for the producers every year, and such chaos reigned that both producers and distributors took the signing of the annual contracts as the signal to begin undercutting them, before the ink on the agreements was dry. Neither producers nor consumers were benefiting in the least from this price cutting war."*

Such, then, was the position of the milk industry which led to the setting up of the Reorganization Commission for Milk on April 18th, 1932. After analysing the position of the industry, the Commission in its Report postulated seven main objects of reorganization, which it set out as follows:—(a) The strengthening of the position of the producers, by enabling them to negotiate as a solid body with one voice and with adequate information, and by ensuring that negotiated agreements are universally observed.

* *New Statesman*, March 9th, 1935.

(b) The prevention of undercutting of the liquid market, and the provision of satisfactory arrangements for the sale of milk for manufacture. This is necessary to establish a clear distinction between the two markets for liquid milk consumption and manufacture and to secure the return to producers of their fair share of the proceeds of all milk sold in the primary and more lucrative market.

(c) The improvement of the quality of our milk supplies.

(d) The stimulation of the demand for milk for liquid consumption.

(e) The recognition of the service rendered by producers who cater primarily for the liquid milk market.

(f) The development of the manufacture of milk products.

(g) The co-ordination of the efforts of all concerned—producers, distributors and manufacturers—to secure prosperity for the whole milk industry of the country, but with adequate safeguards for the interests of the consuming public.*

These ends, as the Commission pointed out, could only be achieved by the setting up of a Central Producers Board which would control all contracts for the sale of milk. To perform this function effectively and to influence the direction of supplies to different markets or to other uses, it is necessary that the Board should assume ownership of all milk sold off farms other than that retailed direct by producers. This does not imply that the Board should handle any milk for which producers are able to find buyers. The Board need merely become the legal owner of the milk at one stage of the marketing operation; "and this can be secured by means of contracts into which the Board enters as an intermediary between the producer and distributor or manufacturer, as the case may be. The relations between these two parties will not be interfered with in the normal way, except that all payments accrue to the Board for distribution to the producers in accordance with the price policy in operation."†

Such are the main functions of the Milk Marketing Board which began operations on October 6th, 1933. The Milk Marketing Scheme operated by the Board provides for the

* *Reorganization Commission*, p. 75

† *Ibid.*, p. 8.

division of England and Wales into eleven regions. In each region a contract price is fixed by negotiation in the Joint Council as the basis of all wholesale transactions between the producers and purchasers of milk in each region. This contract price is the distributors' liquid milk buying price. The proceeds of all milk sales in the region are credited to a regional pool, but a rebate from the contract price is allowed to purchasers who use milk for manufacture. These rebates, also negotiated by the Joint Milk Council, vary according to the way in which the manufacturer has utilized the milk he has purchased, being higher in the case of higher valued milk products. Every contract has to be registered by the Marketing Board.

The Board, being a party to all contracts, is the agency through which all payments are effected. A monthly return of milk delivered by the vendor and accepted by the purchaser has to be compiled on the last day of each month and posted to the Board not later than the seventh day of the following month. The purchaser is then notified by the Board as to the amount due from him and payment is to be made to the Board. Payment to the producer is made monthly by the Board as soon as the "regional pool price" has been calculated. This price is determined not only by the contract price referred to above, but also by the proportion of milk produced in the region which finds its way to the liquid milk market.

The return, however, to the individual producer in any region is modified by two important adjustments. In the first place, in order to avoid wide differences in regional prices, a small levy—the inter-regional compensation levy—is imposed on all liquid milk sales. Regions having a high proportion of sales of liquid milk contribute towards the pool price in regions in which the proportion of manufacturing milk is high. This contribution, as the Commission points out,* is of the nature of a subsidy paid by milk sold in the liquid milk market, to milk which has to be manufactured. In order that it may be utilized to the maximum advantage, the payment of this subsidy is limited to those months when

* *Reorganization Commission*, p. 103. Roughly six regions carry part of the surplus milk in the other five.

the cost of the raw material is low. Thus during the winter months the contributions are accumulated for distribution over the months of cheap production.

Secondly, the return to the individual producer is also determined by the type of contract he enters into with his buyer. Two types of contract are permitted by the Board : (a) contracts providing for the supply of level quantities charged to buyers at the liquid milk contract price (plus any agreed level delivery premium (explained below)) and (b) contracts with no restriction on the day-to-day variation in supplies and providing for payment by buyers at the contract price for milk re-sold in liquid form and at the appropriate manufacturing prices for milk converted into products.

Contracts of the first type, which permit only small variations in daily supplies, cater for the needs of distributors with no facilities for the manufacture of milk products except on a very small scale. The second type of contracts are suited to the needs of manufacturers and of wholesalers with adequate conversion plants.

The Scheme also allows the producer to secure by negotiation remuneration for service. For example, the producer who contracts to supply milk under a level-delivery contract (i.e. (a) type of contract) performs a definite service for his buyer ; and as he incurs additional cost to supply milk on this basis, it is only fair that he should receive extra remuneration. Under the Scheme, therefore, producers who contract to supply stated daily quantities of milk receive in addition to the regional pool price a premium, known as the level-delivery premium.

Provision is also made under the Scheme for a premium for quality. " In the past ", the Commission points out, " the producer who has sought to improve the standard of his production has often been deterred by the fact that he has secured no special recognition from his buyer"* To remedy this situation the Milk Marketing Board has instituted a roll of Accredited Producers, all of whom receive a guaranteed quality premium (referred to as a " general service premium ").

* *Reorganization Commission*, p. 105.

Such are the main outlines of the Milk Marketing Scheme as regards registered producers. It remains to describe briefly the position of producer-retailers, who retail at least a quarter of the total quantity of milk consumed liquid. As producer-retailers stand to benefit by the operations of the M.M.B., it is only fair that they should contribute towards its expenses. Accordingly, therefore, they have to make contributions to the regional pool and other funds in control of the M.M.B., and, for purposes of assessment, are obliged to submit monthly returns to the Board of their sales and total production.

The Scheme also provides for the regulation of the prices at which producer-retailers may sell. Every producer-retailer must obtain a retail licence which stipulates that he must not sell milk at a price below "the prevailing price" in the district concerned. The "prevailing price" in any district is not fixed by the Board; it is fixed either by general agreement or by agreement on the part of the majority of retailers in the district. The Board, however, may intervene to prevent undercutting in cases where the retailers in any district fail to agree.

The only producers exempt from the Scheme are those who have not more than four milch cows and do not sell milk by retail, and those who either do not sell milk at all or sell only to their servants for domestic consumption. All other producers are obliged to register, and producers who are neither registered nor exempt from registration are prohibited from selling milk.

It now remains to consider the advantages and possible weaknesses of the Milk Marketing Scheme. On the credit side, the first advantage which leaps to the eye is the increase in bargaining strength of the producers, thereby helping them to obtain a more equitable share of the consumer's £. "The financial position", reported the Commission, "of many milk producers is at present so weak, and their dependence on the liquid market so complete, that they cannot afford the risk of failure to obtain a contract. They must therefore often accept contracts on terms which are unsatisfactory both to themselves and to their colleagues in the

industry.”* “We have no doubt”, concluded the Commission, “that the first step necessary to the welfare of the industry is to strengthen the position of producers, as a body, in negotiating with distributors and manufacturers.”†

Secondly, the Scheme promises to promote the prosperity of the milk industry by raising the quality of milk supplies—an essential condition of expanding the consumption of liquid milk. Not only is the M.M.B. in a position to take steps to secure the effective and uniform administration of the Milk and Dairies Order and the compulsory routine clinical inspection of all dairy cattle, it can also make it more profitable for producers to raise the quality of their milk. This the Board is effecting by dividing producers into two broad classes according to their general standards of production. Producers who comply with certain prescribed conditions qualify to be placed on the Roll of Accredited Producers—a distinction which qualifies them to a guaranteed premium, the proceeds for which are obtained partly from distributors, partly by a levy on all producers. On the other hand, milk produced by other producers is subject to a penalty if it fails to reach a prescribed minimum standard of cleanliness and bacterial content.

A third important advantage of the Scheme is that it promotes the development of the manufacture of milk products on a more systematic basis, thereby laying the foundations for the extension of this section of the milk industry. In the decade or so before the introduction of the Scheme the manufacturers of milk products suffered not only from the price cutting of overseas competitors, but also from the competition of large buyers of milk for the liquid market.

The majority of creameries, cheese factories and condensaries in England and Wales are concentrated in two main areas, one comprising Somersetshire, Dorsetshire and Wiltshire, and the other Cheshire, Flintshire, Shropshire, Lancashire, Derbyshire, Staffordshire, Leicestershire and Nottinghamshire. Now, until cheap and rapid transport made it possible to bring in milk from distant country

* *Reorganization Commission*, p. 65.

† *Ibid.*, p. 64.

districts to consuming centres, the dairy-product factories had to pay for their raw material little more than its value if retained for manufacture on the farm. Transport developments, however, have enabled large buyers in the consuming centres to penetrate into these outlying districts, so that the number of districts in which milk can be bought exclusively for manufacture at prices that leave a profit have been continuously diminished.

The remedy for this situation is provided in the Scheme by the provision that payment for manufacturing milk is made on a realization basis. The Commission, in recommending this policy, had been much impressed by the experience of milk marketing schemes in the United States. The New York Dairymen's League, for example, adopt the following classification for the sale of milk* :

- (1) Fluid Milk.
- (2) Cream, ice-cream, plain, condensed and homogenized mixtures.
- (3) Evaporated whole milk, sweetened whole condensed, milk chocolate, whole milk power, soft and foreign cheese.
- (4) Butter.
- (5) American cheese.

This classification serves the purpose of determining the price charged by the New York Dairymen's League for the milk it sells, the amount payable by the buyer depending on the way in which he has utilized his supplies. The Milk Marketing Scheme embodies this principle, though the classification adopted varies somewhat from the above.

The manufacturers themselves, when questioned by the Reorganization Commission, declared themselves in favour of a single flat-rate basis for all manufacturing milk. At first sight economic common sense seems to be on the side of the manufacturers' point of view—that one price should prevail for milk utilized for manufacture. When, however, the complexities of the industry are taken into account, the American scheme is seen to be based on the practical needs of the industry as a whole.

* *Reorganization Commission*, p. 122.

The principle that the price of milk should vary according to its use is universally accepted as regards the distinction between milk destined for the liquid market and milk destined for manufacture—a distinction necessitated by the seasonal nature of milk production, geographical factors, and the fact that milk production is in excess of the requirements of the naturally protected liquid market. Why should not the principle be extended to manufacturing milk? If the manufacturer is to be protected from the situation prevailing prior to the introduction of the Scheme, when he commonly bought at flat-rate prices higher than the value of the milk for his particular manufacturing purpose and was forced to take opportunities of reducing his losses or obtaining casual profits through sales in the liquid market—if he is to be extricated from this difficult position it is only right that he should contribute to the Scheme in proportion to his ability to pay.

Now the ability of the manufacturer to pay for his raw material depends on the particular milk product he manufactures—a fact which justifies the principle of selling milk for manufacture on a classification basis. This is due to the fact that the tendency for the value of the raw milk in the finished articles to be equal is subject to disturbing influences. As the Commission points out, the degree to which there is a preferential demand for the home as against the imported product varies considerably with the type of product.* In the case of condensed whole or separated milk, tinned cream, or milk powder, there is little if any preferential demand for the home product. The price premium, therefore, which these products can carry over the similar imported article must be very small. Fresh cream, however, and, to a less extent, butter produced in this country does command such a premium, partly in virtue of the discriminatory demand for the British product and partly, in the case of cream, because the perishable nature of this commodity limits to some extent the competition from overseas. British cheese—at least that part of it which is not made from milk first destined for the liquid market—also possesses a differential demand. Hence the manufacturers

* *Reorganization Commission*, p. 117.

of these latter products are in a position to pay a higher price for their raw material.

Thus the principle that the price of milk used for conversion into products should depend upon the realization of the milk when manufactured is based on sound economics. In conjunction with other provisions of the Scheme, namely, regional pooling and the levy for inter-regional compensation, it ensures that large supplies of milk shall be available in the manufacturing areas, particularly in the summer months, at prices which will place the manufacturer on an equal footing with his overseas competitor. The cheese, butter, cream, condensed milk, milk powder and chocolate factories can contract for definite supplies at a definite price for a year ahead. "These are stable conditions for manufacturing that exist in no other country in the world, and (for what it is worth) have induced many foreign firms to come to England to set up factories."*

Thus the scheme will raise the manufacture of milk products from the position it has hitherto occupied as subsidiary to the supply of milk for liquid consumption, thereby promoting the efficiency of this section of the milk industry. As the Reorganization Commission points out, "the production of factory cheese in this country has suffered through the subsidiary position it has occupied relatively to the liquid milk market. It has been a common practice for milk to be held in reserve for dispatch to the liquid market and only diverted to cheese production after all hope of such sale had disappeared and the quality of the milk had deteriorated. In so far as the scheme we propose will enable cheese manufacturers to obtain regular supplies of milk at economic rates, this state of affairs should be largely remedied. The quality of factory-made cheese should thus show an improvement, and this in itself should constitute one factor tending to raise the value of manufacturing milk so used."† The Commission also considers that under the Scheme there is considerable scope for expansion of creamery butter production.‡

* L. A. Easterbrook: *New Statesman*, March 9th, 1935.

† *Ibid.*, p. 132.

‡ *Ibid.*, p. 133.

It is important to remember, however, that the successful operation of the provisions under which the price of milk as a raw material depends upon the realization value of the milk when manufactured is bound up with the regional pooling of proceeds and the levy for inter-regional compensation. For it is these provisions which secure as between producers an equitable distribution from the higher returns from the liquid milk market. Hitherto, producers have resorted to the practice of cutting the prevailing price as a temporary expedient to secure a footing in the more lucrative liquid market. The increasing mobility of milk due to transport developments further complicated matters; for it enabled distributors to reach out for supplies for the liquid market to new districts mainly of uneven seasonal and cheap production, which are best adapted to produce for manufacture. Producers in these districts will in future be precluded from securing a place in the liquid market by undercutting and in return will be granted a share of the higher proceeds realizable from that market. The Regional Pools are designed to effect an equitable distribution of the proceeds of all milk sold as between the producers in any one region, while the Inter-Regional Compensation levy is an attempt to assure justice as between one region and another. Under the latter provision, by which a fund is accumulated by means of a levy on all sales of milk for liquid consumption, regions with a high proportion of sales for liquid consumption will assist those regions in which the proportion of manufacturing milk is high.

Thus the scheme does not benefit all producers. Indeed, it actually lowers the returns of those occupying a specially favoured position for selling their whole dairies at the "liquid" price, estimated at some 20 per cent. of the total. It is doubtful, however, whether even these producers will ultimately be losers by the scheme, for their position is being rapidly undermined by the competition of the cheap production outlying areas, assisted by the developments in road transport. They are unlikely, therefore, to attempt to wreck or obstruct the scheme.

CHAPTER XII

THE CRITICS OF THE MARKETING SCHEMES

WHAT judgment are we to come to of the marketing schemes and other constructive schemes devised for agriculture in the last few years? Few will deny that the "frictions" which the production and marketing of many important agricultural products encounter justifies some attempts to eliminate their effects. The orderly feeding of the market, the control of "surplus" by producers to prevent price fluctuations, the strengthening of the producers *vis-à-vis* the distributors, standardization and grading of produce—the organization of producers to achieve these objectives scarcely needs justification.

The main criticism of the marketing schemes centres round the price policy which the Boards are adopting. The purpose of the Boards is to raise producers' net returns from the commodity which they control. In so far as they achieve this by effecting economies in marketing and production or by obtaining for producers a large share of the consumers' £, they are immune from criticism.

But the endeavour of the Boards to raise prices has aroused a storm of criticism. The policy of raising prices, it has been pointed out, necessarily involves the control of production. The experience of the Grain Stabilization Corporation in the United States amply demonstrates this point. In 1929 the Corporation started operations by holding off the market 65,000,000 bushels of the 1929-30 crop. In the following season, a similar policy was pursued, the holdings of the Corporation amounting in June, 1931, to 257,000,000 bushels (about 30 per cent. of a year's crop).* The operations of the Corporation succeeded in maintaining wheat prices during these two seasons at a higher level than they would have attained in a free market. Its success, however, merely

* *The Planning of Agriculture*, Astor and Murray, Oxford University Press, 1933, p. 60.

made matters worse ; for it had removed the stimulus to a decrease of production, which falling prices would have given, without providing an adequate substitute, its requests for voluntary reduction proving futile. When the Corporation ceased operations in 1932 and grain came freely on the market, the price was down to 50 cents per bushel as compared with 90 cents, the average buying price of the Corporation.

Any attempts of the Marketing Boards to raise prices, while conditions of supply and demand remain unchanged, are obviously doomed to failure. They must control production. This the boards are attempting to do. The pig marketing board is controlling the supply of bacon by the contract system. Once farmers have signed their contracts with curers, they are committed to a definite output for the period of the contract. In the event of their supplies falling short of this output they are liable to fines ; should their output exceed their contracted supply, they are precluded from disposing of it in the bacon market. The Potato Marketing Board, as we have seen, is attempting to control production by a different method : it sets a limit to the acreage of potatoes to be grown.

At this policy of production control several valid objections can be levelled. In the first place, as Lord Astor points out, there is the special objection of the diversity of British farming. "If the various commodity marketing boards get busy allocating quotas, the whole balance of the farm will be upset. Pig quotas will bear no relation to grain or butter production ; mutton and lamb quotas will be fixed regardless of any interdependency in the farming system of sheep, roots and barley. If the harvest weather breaks and the farmer has a lot of poor grain on his hands, he cannot increase his hens, pigs or cattle, because his egg quota, his contract for pigs, and his allotment of fat cattle are fixed. Even if he stored the grain he would have no guarantee of a greater allotment next year."* And would not the multiplicity of producers' control boards, Lord Astor goes on to ask, and their co-ordination present an almost superhuman task ?

* *The Planning of Agriculture*, p. 63.

Lord Astor's case against a universal, or even a wide-flung system of production control is surely unanswerable. But is he on such sure ground when he asserts that in a country where mixed farming prevails it is impossible to put into force production control schemes which apply, as at present, to one or two commodities only? True the control of one or two commodities tends to increase the instability of the supplies and prices of other commodities. The stabilization of the bacon market, for example, increases the instability of the uncontrolled pork market.

Yet the balance of advantage may make such a policy desirable. Thus, the Reorganization Commission for Pigs were emphatically of opinion that the advantages of stabilizing the bacon market outweighed the disadvantages of increasing the instability of the pork market. They contended that if bacon factories are to produce economically they must maintain a full and regular through-put, while fluctuations in the supply of pork does not necessarily affect its cost of production. Again the supply of English bacon must be regular if it is to make headway against foreign competition; "no retailer is prepared to chop and change his source of supply and the type of bacon he offers to suit the convenience of home producers."* Pork, on the other hand, is little affected by foreign competition and is, moreover, a product for which the demand is largely seasonal.

The stabilization of the potato market may also be justified by the "balance of advantages" argument. May not the advantages of eliminating the effects of fluctuating potato yields combined with a highly inelastic demand offset disadvantages arising from any instability which may be produced in such activities as stock raising and butter-making, which are likely to be affected by provisions of the Potato Board.

Such efforts of the Marketing Boards to control production as the contract system for bacon pigs and riddling provisions for potatoes promise substantial advantages to all the interests concerned. Other methods, however, of controlling production, such as production quotas, are more

* *Reorganization Commission for Pigs and Pig Products.*

open to criticism. Production quotas, which have been adopted by the Hop and the Potato Marketing Boards, are not only uneconomic, but also difficult to render effective. For example, the use of quotas to limit the acreage of the controlled crop which a farmer is permitted to grow may be rendered ineffective by more intensive cultivation.

This method was unsuccessfully operated by the Egyptian government in 1926-29 under a law prohibiting the planting of more than one-third of each holding in cotton. To this law the planters reacted by taking greater care in cultivation, as a result of which yields rose and production did not decline materially.* To ensure effectiveness of production quotas it is necessary to limit the amount of the commodity which each producer may place on the market. But this policy can only be successfully administered in regions where one crop predominates or where the commodity has to pass through a bottle neck, as in the case of exporting countries.

But even if production quotas are successfully administered, they are open to strong objections on economic grounds, except as short-term measures to meet a temporary situation, as in the case of Denmark's restriction of bacon production in the face of a sudden contraction of her export trade. As a long term measure, the production quota is likely to prove inimical to efficient production. If, as in the case of potatoes, the grower's acreage is limited so as to maintain the *status quo*, how is provision to be made for the entry of new men who are more efficient. As Lord Astor points out : " If milk production had been regulated twenty-five years ago and the output of all the existing farmers had been controlled, new men with revolutionary and cheaper methods would not have been able to start dairying at all." The objections are even stronger if production quotas are used to contract production : all-round percentage reduction compels the efficient producer to contract his operations to the same extent as the least efficient.

Another important aspect of the Marketing Schemes to be considered is the quota restriction on imports to which they have given rise. As we have seen, the Agricultural

* *Economist*, October 29th, 1932.

Marketing Act of 1933 empowers the Board of Trade to restrict the imports of any agricultural product which is subject to an existing or a prospective marketing scheme. This Act has been the subject of high commendation in some quarters, as, for example, in a series of articles on agriculture in the *Statist*, from which the following is a quotation. "The Agricultural Marketing Bill of 1933 may be summarized as a guarantee to British farmers, on the one hand, that the success of any future schemes for the reorganization of agricultural marketing will not be endangered by a glut of foreign food supplies, and to the rest of the community, on the other, that the assistance so afforded to agriculture is conditional on the creation of efficient machinery for the marketing of agricultural produce."*

Can this optimistic attitude towards the import quotas as a long-term policy be endorsed? As regards bacon, the Reorganization Commission for Pigs have undoubtedly presented a strong case. A quota for bacon, the Commission argues, is necessary for three reasons. (1) It enables effective and carefully regulated protection to home and other producers. (2) The curer is dependent for his raw material on a supply of suitable pigs. If this supply is to be regular, the farmer must provide by planning ahead, for which he will require some certainty as to price. If the curer, then, is to be bound to take pigs from farmers at a guaranteed basic price over an extended period, he should in turn be secured a reasonable chance of selling the finished product without loss on a regulated market. (3) The possibility of a rapidly alternating expansion and contraction of pig production is so great, and the influence so serious, that no protective measure can be of permanent good unless it is able to check excessive importation. A tariff is not a reliable instrument for this purpose, as, in the case of most agricultural products, the urgency of marketing is so great that the foreign producer in seasons of glut will cut his prices to the extent necessary to offset the tariff.

In short, the quota is necessary to the contract system; and the contract system is the only method of eliminating

* *Statist*, January 24th, 1933.

the disastrous fluctuations of supplies in the bacon-pig industry, which entail serious losses to farmers and high costs of production at the factories.

The quota method of restricting imports, however, is open to serious objection in the case of most agricultural products. An instructive example is wheat, the commodity for which protection by quota was first proposed. The object of the proposed wheat quota was to ensure that the quantity of imported wheat consumed in this country would not exceed a certain definite proportion of the total consumption—at the Imperial Conference of 1930 a quota of 85 per cent. for imported and 15 per cent. for home grown wheat was proposed. This type of quota, under which a certain minimum proportion is reserved for the home product, differs from the type of quota applied to bacon, which fixes the absolute amounts, not the proportions. A quota fixing absolute amounts is inapplicable to products like wheat, the yield of which varies considerably from season to season.

Now the proposed wheat quota would have had to be either fixed or variable; under either alternative serious complications would have arisen. Under a fixed quota, complications arise from the considerable variations in harvest yields. "If the harvest were exceptionally bad (as in 1930) and the quota was maintained unaltered, the price of British wheat would rise very sharply indeed—for short supplies of British wheat would bring with them an artificial shortage of all kinds of wheat available for milling. The only way in which it would be possible to avert a famine (total supplies 8 per cent. below normal would be famine conditions) would be to draw on the wheat generally used as poultry food. This inferior wheat would have to be milled in order to get permits for the importation of wheat from abroad. The shortage of wheat for non-milling purposes might become distinctly serious, though of course it would be possible for farmers to import foreign wheat if it was not to be milled. However, the foreign wheat would be more expensive than the cheaper grades of English wheat normally are."* What

* *Tariffs*, by a Committee of Economists, Longmans Green, 1932, p. 216.

would be the attitude of the public to a situation in which bread was expensive and bad, while good quality foreign wheat was fed to chickens?

While an inflexible quota would create an impossible situation in years of bad harvests, in years of good harvests it would merely cease to be protective. The proportion of British wheat would exceed the quota which would become inoperative.

The conclusion is inescapable: a wheat quota, as continental experience amply bears out,* would have to be adjustable. The adjustable quota, however, though it is at least workable, is almost equally objectionable. "If farmers knew that the quota would be raised in the event of a good harvest, they would have a strong incentive to have good harvests: that is to say, to invest more and more in the production of wheat. If the acreage under wheat rose, it might be possible to prove that the quota, instead of merely preserving the industry, was stimulating it to an unhealthy and expensive expansion; and to refuse on that ground to change the quota. But it is rather much to expect all governments to do even this. If the output rose through more intensive cultivation, it would be more difficult to distinguish chance from intention. And the more the quota was raised the greater would be the sacrifice of national wealth."†

Finally we may ask, how under a wheat quota account is to be taken of the different grades or types of wheat. How would the administrators of the quota obviate recurrent shortages of one or other of the different grades? Would they not be compelled, as Lord Astor suggests, to establish separate quotas for soft wheat for biscuit flour, wheat for feeding, and hard wheat for bread?

Now, wheat has been taken as an example, not because there is any likelihood of a wheat quota being established; the wheat scheme of 1932, which is a form of bounty extracted from consumers, seems firmly established. It has been taken because, apart from bacon, which is, after all, a manufactured product, it is the agricultural product, at least of any importance, which lends itself best to regulation by quota.

* *Tariffs*, p. 217.

† *Ibid.*

If a commodity is to be successfully regulated by quota, it must possess two characteristics. First, the demand for it must be inelastic and stable; only when the amount of the commodity absorbed into consumption varies little from year to year can quota regulations be fixed for any considerable period ahead. For commodities like eggs, butter, meat, the quota is a dangerous long time instrument, as demand for these commodities varies considerably according to their relative prices and the degree of prosperity of the community. Quotas applied to such commodities, therefore, would have to be adjusted at not infrequent intervals, thereby creating uncertainty in exporting countries—a circumstance which would react on our own export trade. If quotas are to be subject to frequent adjustments, how are they to be justified as instruments for planning international trade. Has it not been demonstrated time and time again at international conferences that frequent changes in tariffs are highly inimical to international trade? How much more so are frequent changes in quantitative restrictions!

Secondly, a commodity which is to be successfully regulated by a quota must be uniform; that is to say, it must not be characterized by subtle but important distinctions of grade or type. If a commodity is so characterized, then, if shortages of particular grades are to be obviated, a quota would be necessary for each grade. Lord Astor gives several examples of such commodities: beef, veal, mutton, lamb, butter, wheat. "Imagine a Board trying to allocate import quotas to suit the demands of numerous types of malting barley."*

What agricultural product is there that fulfils these two requirements? Wheat has been generally regarded as the commodity most suitable for regulation by quota. The demand for it is highly inelastic and subject to little change over long periods. But, as we have seen, it fails to fulfil the second requirement, uniformity of grade. It is a significant fact that, when in 1932 it was considered necessary to assist the wheat growers of this country, the Government decided against a wheat quota, although on general grounds they

* *The Planning of Agriculture*, Oxford University Press, 1933, p. 122.

favoured quantitative restriction as an instrument of protection.

Thus quotas as a long term instrument either for planning production or for protecting the home producer are open to serious objections which limit their scope narrowly. As yet a strong case for the application of the quota as a long term instrument of planning has been made out in one instance only—the case put by the Reorganization Commission for Pigs. The quota for home produced and imported bacon holds forth a fair promise of benefiting most, if not all, of the interests in the bacon trade. Foreign producers, it is true, have had to submit to a reduction in their trade with this country, but not only have they reaped a counter-balancing advantage in higher prices, but also can look forward in the future to a more stable market. It remains for time to show whether the repercussions of the bacon quota in the pork market are sufficiently damaging to offset the advantages of the scheme. But even if the quota scheme for bacon should prove unsuccessful, its value as an important experiment will go far to justify it.

Of all the agricultural marketing schemes that have so far been put into operation, the scheme for milk has been perhaps the most severely criticized. Much of this criticism is due either to a short-sighted attitude to the problems confronting the milk industry, or to a misconception of the provisions of the Scheme. The criticism, however, of Lord Astor in his book written in conjunction with Mr. Murray, *The Planning of Agriculture* (Oxford University Press, 1933) goes to the root of the problem and deserves the closest attention.

Lord Astor admits at the outset not only that milk offers greater possibility of farmer control than most agricultural commodities, in virtue of the natural protection of the liquid market; but also that control of milk prices can be justified if it eliminates undue disturbance of production. To this contingency, he points out, such a commodity as milk, the demand for which in the short run is very inelastic, is particularly prone. If as the result of a good pasture season milk yields rise suddenly, the price would decline, and though

the increase might be only temporary, it might start an undesirable decrease in production. The consequent rise in price, moreover, may well swing the pendulum of production too violently in the other direction. Such disturbances of production, Lord Astor admits, could be obviated, if price were controlled and the surplus to liquid requirements were taken off the market by diversion to the factories.

Thus, Lord Astor concludes, the main issue seems to be the benefit that will accrue to the producers of having control of the "surplus". So long as there is a wide disparity between liquid prices and manufacturing prices this will be the vital issue. The objective of the Scheme, therefore, is for the producers, once they have control of the surplus, to get the full return for every gallon of milk sold on the liquid market in the expectation of securing larger total returns to the producers on the whole output of milk.

Even if the Scheme succeeds in attaining this objective, Lord Astor considers that two serious problems are likely to arise. In the first place, he asks, will not a larger return to milk producers as a whole result in an increased output?—thereby threatening the whole structure of the Scheme. The second problem arises from the competing interests among producers. There is, as we have seen, a well defined cleavage in the milk producing industry. One section has developed on a more or less intensive scale with relatively high costs in response to the higher price of liquid milk, while another section has developed to produce milk cheaply almost entirely for manufacturing. Now under the Scheme part of the price of liquid milk is to be used to bribe the manufacturing milk producer to keep off the liquid market. Is not this bound, Lord Astor asks, to lead to the increase in the production of summer milk, i.e. the manufacturing milk which is to get the summer bribe?

Clearly, Lord Astor, by asking these questions, has laid his finger on the crux of the problem of milk marketing. Has he not, however, failed to take into consideration the vital factors upon which the correctness of his answers, or rather his implied answers, depend? For example, as regards the first question—whether higher returns to milk

producers as a whole will not result in an increase of supply—surely the answer depends on two factors which Lord Astor has not mentioned? In the first place it depends on whether, at the prices prevailing immediately prior to the operation of the Scheme, producers were receiving a normal or equilibrium rate of profit. If profits in the year or two prior to the Scheme were sub-normal, then it is possible that a higher rate of return to producers would not stimulate them to expand output. Seeing that the trend of prices from 1923 to 1933 has been almost continuously downward the possibility that producers' returns have been subnormal may very well have been the case.*

The second factor upon which the response of producers to higher returns depends is the relative profitability of milk production—relative that is to the profitability of other activities on the farm; for the farmer's output of any particular commodity depends not merely on the absolute level of profits which it promises to yield him. If the prices of other agricultural commodities which he is adapted to produce are depressed even more than milk prices, he may still be inclined to increase his output of milk even though milk prices are sub-normal. And in recent years it is probable that this has been the actual situation.

Since 1931, however, numerous measures have been taken to increase producers' returns on several agricultural commodities in addition to milk. In 1931 the Horticultural Products Abnormal Importations Act gave a high degree of protection to certain fruits and vegetables and in 1932 protection was afforded to a wider range of agricultural products by the Import Duties Act which imposed a 10 per cent. *ad valorem* duty on foreign imports.† The Wheat Quota Act of 1932 gave a considerable stimulus to wheat growing in

* According to the Index of Milk Prices compiled by the Ministry of Agriculture, producers' prices of milk in the period 1923-31 fell by 15½ per cent. Producers' returns, however, declined to a greater extent than this figure indicates as the method of construction of the Index gives an unduly favourable impression of the producers' position (See *Report of the Reorganization Commission for Milk*, p. 41). From 1931 to 1933 the producers' prices of milk continued to fall—in 1933 particularly.

† There was, however, a free list, the most important items of which were wheat, beef, mutton, lamb, pig products, wool.

this country. In the same year, agreements were entered into with meat exporting countries for the restriction of beef, mutton and lamb supplies. Finally, in 1933 and 1934 were instituted the Pig and Potato Schemes, both of which provide for the limitation of imports of bacon and potatoes.

All these measures have done much to increase the profitability to farmers of the commodities to which they refer. Now, this fact has an important bearing on the Milk Scheme, for every increase in the attractiveness to farmers of producing commodities other than milk tends to prevent them from expanding their production of milk at the expense of their other activities.

Lord Astor makes one further objection to the Milk Scheme. He points out that under the Scheme no compensation is to be paid to milk producers making butter or cheese on the farm. Will not such producers, Lord Astor asks, change their practice and sell milk off the farm in order to obtain a share in the proceeds of the regional pool and the inter-regional compensation levy? If they do the Scheme will be burdened by the release of a hitherto untapped supply of liquid milk.

Lord Astor has here laid his finger on a serious weakness of the Milk Scheme; for no less than 250,000,000 gallons* (the estimate for 1930-1) were utilized in the farm production of butter and cheese—a figure which represents a substantial proportion of the aggregate milk output of Great Britain—947,000,000 gallons.†

Developments, however, subsequent to the institution of the scheme promise to remedy this situation. In May, 1934, Mr. Elliot introduced a Bill by which the Government is to guarantee the Milk Marketing Board minimum prices of 5d. a gallon in summer and 6d. in winter in respect of milk manufactured in factories in Great Britain. This guarantee will also benefit those farmers who retain milk on the farm for conversion into products, for the same advances are to be made in respect of butter and cheese manufactured on the farm, for which the Milk Marketing Board are to assume

* *Reorganization Commission*, p. 45.

† *Ibid.*, p. 199.

responsibility. This measure, however, being only a temporary expedient, does not absolve the Milk Marketing Board from putting the farm manufacture of milk products on a sound basis.

But this Bill of Mr. Elliot's, taken as a whole, is more than a temporary palliative to the milk industry, the subsidy provisions being merely subsidiary to the long-term measures of the Bill. These long term measures, all of which are designed to increase the demand for liquid milk, are three in number. First, the Government undertakes to provide £750,000 over four years for a campaign for purer milk, an indispensable condition for promoting an increase in the consumption of liquid milk. Secondly, the Government undertakes to contribute on a £ for £ basis with the Milk Marketing Board up to £500,000 a year for two years to a milk publicity campaign. Thirdly, the grant is contingent on the Milk Marketing Board providing for the supply of milk to schools at reduced rates. This last provision is designed not only to improve the health of schoolchildren, but also to lay the surest foundation for an expansion of the consumption of liquid milk—the acquiring in early years of the habit of drinking milk. If these long term provisions of the Bill succeed in promoting their objective, then the expansion of milk production in this country, as a result of the stimulus of the subsidy, will be economically justified.

Whatever the limitations of the Agricultural Schemes promoted by the Government since 1931, there is little doubt that they have come to stay, however much they may be modified in the light of experience. They promise to be a permanent feature of British agriculture because they rest on strong foundations. In the first place, they are based on the belief, held by almost all shades of opinion, that it would be inimical to the social and even the economic interests of the country to allow British agriculture to continue to decline and that therefore sacrifices are justified to afford assistance to the industry. Secondly, they are based on the necessity of British agriculturists to combine not only to meet the combinations of their overseas competitors and the combinations of distributors and other interests at home, but also

to solve the problems of agriculture which modern conditions have so greatly intensified.

Since 1931, when this country for the first time since the abolition of the Corn Laws decided to embark on a policy of all round direct assistance to agriculture, the question has been: How can a maximum of protection be given to agriculture with a minimum of sacrifice to the country as a whole? There are three main alternatives: import duties, quantitative restrictions (voluntary and compulsory) and bounties. Import duties—as a form of protection—have many advantages. Provided they are moderate and stable, they cause no dislocation to international trade. Nor do they interfere with the workings of the price mechanism: new and more efficient sources of supply are free to displace the marginal producer, the adjustments of demand and supply have free play, the producer can adjust his various activities according to the fluctuations of the market.

On the other hand, the protection of agriculture by import duties is open in the case of many products to three weighty objections. In the first place, an import duty on an article of popular consumption like wheat or meat is the most regressive of all taxes: the weight of the tax falls most heavily on those least able to bear it. Secondly, if adequate protection is to be afforded to certain commodities like wheat, the world price of which is far below average costs of production in this country, an enormous import duty would have to be imposed. This is evident from the operations of the Wheat Quota Act, under which deficiency payments have been as much as 26s. a quarter, the standard prices under the Act being fixed at 45s. per quarter, while the world price during part of 1933 and 1934 stood at 19s. per quarter. Such a disparity between world and home prices makes protection by an import duty impossible. And with certain other commodities the same argument holds in a lesser degree. Thirdly, there are political objections to the imposition of import duties on important articles of food. Not only are they unpopular with the electorate, but, owing to the fact that articles like wheat, meat, butter and cheese are largely

imported from the Dominions, they also complicate imperial relations.

The second form of protection, quantitative restrictions, has been discussed above and further analysis is unnecessary. The following quotation, however, of the Economic Committee of the League of Nations drives home the conclusion which has already been reached. "The Economic Committee considers that, although in some cases exceptional conditions may necessitate the quota system, it should be a purely temporary expedient. Pending its disappearance, it is in any case essential that it should be attenuated in every possible way."*

The final alternative—that of bounties—has now been applied in three cases, sugar beet, wheat and milk. In the case of sugar beet and milk a straightforward bounty has been given, but the wheat bounty involves a new and important principle. Strictly speaking, the subvention to wheat growers is not a bounty, since it is derived not from the Treasury but from a tax borne by the consumer on the processed product, flour. This method of assisting producers has two advantages in common with the other forms of bounty over that of an import duty: the whole proceeds of the tax borne by the consumer goes to assist the producer and the political difficulties which the imposition of an import duty would involve are obviated.

Perhaps the most important feature, however, of the Wheat Subsidy Act is the provision by which the quantity of wheat for which the full subsidy may be paid is fixed. Early in each year the Minister of Agriculture announces the quantity of wheat which will rank for the full subsidy, this quantity being the Minister's estimation of the "anticipated supply", but in no case is the full subsidy to be paid on more than 6,000,000 quarters. If the actual supply should exceed either the maximum figure of 6,000,000 quarters or the "anticipated supply", the subsidy on each quarter is to be reduced proportionally. Thus in 1933 it was announced that wheat production had risen to such an extent that

* *Economic Committee of the League of Nations Report to the Council of the Work of the Thirty-fourth Session, Geneva, June 1932.*

growers were to receive only $\frac{3}{8}$ of the nominal value of the guaranteed "deficiency payment". In this way the sponsors of the Wheat Act claim that "the extension of wheat cultivation to land unsuitable to the crop" will be prevented.

The advantages of qualifying bounties by fixing a maximum quantity which shall rank for the full bounty are illustrated by the dangers of the Milk subsidy. The Government has given a guarantee to the Milk Marketing Board of minimum prices of 5d. a gallon in summer and 6d. in winter in respect of milk manufactured in factories in Great Britain, the difference between actual prices and guaranteed prices to be made good by Exchequer advances. This plan has been considered necessary in order to put a bottom into the market for manufacturing milk, the price of which in 1934 fell to $3\frac{1}{2}$ d. a gallon. The danger is, of course, that this guaranteed minimum price may stimulate the output of milk, especially in the areas of low cost production, to an extent which will threaten the stability of the scheme.

Only the prejudiced advocates of the Agricultural Marketing Schemes will deny that many of the criticisms which we have considered in this chapter do show that they are not without weaknesses. The extent to which the schemes will have to be modified in the light of experience only time can show; they are far too complex and the conditions with which they have to contend too uncertain for doctrinaire conclusions about them to be of much value.

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