

BARNETT HOUSE PAPERS

No. 19

THE
NEW ASPECTS OF
INDUSTRIAL
COMBINATION

BY

PROFESSOR DR. HERMANN LEVY

SIDNEY BALL LECTURE

October 29, 1935

LONDON

OXFORD UNIVERSITY PRESS

HUMPHREY MILFORD

1936

OXFORD
UNIVERSITY PRESS
AMEN HOUSE, E.C. 4
London Edinburgh Glasgow New York
Toronto Melbourne Capetown Bombay
Calcutta Madras
HUMPHREY MILFORD
PUBLISHER TO THE
UNIVERSITY

PRINTED IN GREAT BRITAIN AT THE UNIVERSITY PRESS, OXFORD
BY JOHN JOHNSON, PRINTER TO THE UNIVERSITY

THE NEW ASPECTS OF INDUSTRIAL COMBINATION

THE English attitude of mind towards industrial combination has experienced very considerable fluctuations. Up to the end of the nineties of the last century industrial combination was regarded in England either as practically impossible, or, if it existed, as a very hurtful and dangerous element of economic organization. The impossibility of really lasting and—from a producer's view-point successful—combination was from Adam Smith's times deduced from the assumption that manufacturers were much too suspicious to allow other people to look into their business, so that in fact the principle of coalition was opposed to that of economic egoism. On the other hand, the danger of combination was deduced from its monopolist features since in fact there is no country in the world where the word 'monopoly' contains such an amount of hatred and disgust as in England with its unforgotten seventeenth-century experiences. In fact what in the political sphere is considered to be a régime of terror, in the economic sphere is that of monopoly. The English law and partly the English legal practice conformed, or were at least supposed to conform, to this attitude of mind. When at the end of the last century economists began to doubt this very simple theory of industrial organization they could adduce several important arguments. First of all, they might assert that the principle of coalition might just as well in certain cases suit the egoistic instinct of producers as that of individualistic behaviour might in others, the one principle being just as much the mere result of deductive argumentation as the other. Secondly, some facts spoke against the idea of economic liberalism. The organization of the North English coal trade from the end of the eighteenth century up to the middle of the forties in fact

represented a cartel shaped on the basis of a statute of thirty-three paragraphs, combining agreements about the limitation of production, the shipping of coal, and its retail distribution, and exactly resembling the later Rhenish Westphalian syndicate; it could have taught the economists in England that the principle of individualism was very resolutely thrown overboard when circumstances allowed the adoption of another system with greater financial success. Again, while it became known that in the two most important rival countries cartels and trusts were beginning to flourish, little regard was at first paid to the fact that certain sections of the English textile industries had become characterized by combinatory organization, and the whole movement was considered to be some sort of alien device not suitable and not practicable in the traditional sphere of English industrial development. The existing combines did their best to uphold this view. They were not eager to make industrial combination a matter of shop-window display. When I studied the problem of industrial combination in England in 1907-9 I could see the surprise of many industrialists and commercial men that I was writing on the subject of English cartels and trusts, since they firmly believed there was none in their country. In those days it was generally, but even still in our days it is sometimes, the endeavour of many writers to prove their view of the impossibility and futility of industrial combinations, fusions, or amalgamations by counting up their misfortunes or risks, as if it would matter to the fact that a large part of an industry was grouped into forms of quasi-monopoly, whether the financial history of the first years of its existence was disappointing or not. Many individually owned factories have gone to the wall without any blame being attached to the factory system. Cartelization or trustification represents a new form of industrial organization, but not an absolute guarantee of financial prosperity. This, then, was the second period of the English attitude towards combinations. They were considered as alien to English

industrial habits, perhaps even as some sort of foreign invention, to be viewed with suspicion; and, while their existence could no longer be denied, it was in the main attributed to certain exceptional, accidental, or even mischievous conditions which were to be considered to be in contrast to the normal and natural development of British industrial organization. This view is by no means extinct in our days. Although the Report on Trusts of 1919 (and 1924) and descriptive accounts like those by Mr. Fitzgerald of the *Statist* have proved conclusively that British industry as a whole and in all its numerous sections is filled with a network of industrial combinations of all kinds, Professor Lionel Robbins, in a much-discussed book on the *Great Depression*, is anxious to insist that in his opinion cartels and trusts are essentially the outcome either of natural monopoly or patents or of tariffs and other measures of State support. If one were to accept this view the development of industrial combination would have to be considered as being either accidental or mistaken policy, not an organic economic development which one might criticize and adjust, but which at any rate one had to face as being based upon fundamental economic conditions. The view held by Professor Robbins is not even correct as regards the actual facts of cartel and trust development, not to speak at this point of my lecture of its methodological value. Combinations like that of Coats, or the Fine Cotton Spinners, or Calico Printers, or the Distillers in England are based upon neither natural monopoly nor special patents, and they were not backed by protection so long as England had free trade. On the other hand, in a cartel country *par excellence* like Germany, it is just the protected textile industries which have the fewest and weakest combinations. Again, Professor Robbins would not be able to explain why in an industry like iron and steel, which has its base in the exploitation of monopolizable raw material and which has been protected in the U.S.A. and in the German Empire, some sections have been successful in the formation of cartels and trusts

and others have not or less so. It is study of the actual facts and not argumentation from an easy chair which seems to be of essential importance in regard to this problem. Now, one may say that the second period mentioned in regard to the English attitude towards industrial combination belongs to the past. It was the period when the quasi-monopolistic organization of large sectors of English industry, though no longer denied or held impossible, was yet regarded as an unnatural economic tendency, probably effected by some unsound conditions or policy, which it would be advisable to attack and destroy. This period has given way to a third one, exhibiting an attitude which is just the reverse of what was ever contended or supported before. Cartels and trusts, or industrial combinations in general, are rising to a position of much higher and of much more positive valuation than before. As Professor Macgregor has already pointed out in his inspiring essay on *Enterprise, Purpose, and Profit*, the monopolistic aspect, inherent in industrial combination, has been more and more left in the background of discussion while its organizational functions have become of predominant interest. This has been so much the case that—a position unthinkable some years ago—in one English industry in 1934 the grant of protection was made conditional upon the formation of an all-embracing association of producers regulating production and distribution. Opposition to combination as being an instrument to raise prices and curtail individual enterprise has in many quarters been overcome by enthusiasm for industrial combination, which is then not spoken of as monopoly but as being a means of 'Reconstruction', 'Co-operation', 'Co-ordination', 'Planning', and whatever other amiable attributes may be chosen. It has suddenly been discovered that the monopolistic feature in cartels and trusts may not be the dominant note of their organization. And if we ask, before we condemn with Professor Macgregor such a turn as a 'fluctuation of thought', what has been the reason for such a change of mind, we are able to

discover several facts which have changed of late the aspect of industrial combination.

The main feature of these facts seems to be the greater importance which is going to be attributed to the organizational side of combination than to that of monopoly. When cartels and trusts were first discovered in England everybody was terrified by the prospect of high prices. There should be no doubt that, if we assume that costs of production are not reduced after the formation of a combine nor prices possibly lowered according to the technical or organizational increase of its efficiency, then under cartels and trusts prices will be higher than under free competition. It is one of the outspoken ends of industrial combinations to effect this, and it should be regarded by now as sheer nonsense to assume that where they have done so their economic immorality becomes obvious. One should take it theoretically for granted that cartel and trust policy is aiming at higher prices, but what a 'higher' price in fact means in regard to national economic welfare is by no means settled. Moreover, we have learnt by numerous investigations and inquiries, especially in the U.S.A. and Germany, how utterly impossible it is to find out the exact influence of industrial combination on prices. Circumstances of a general economic character may lead to a rise in prices, for which an existing combination cannot be blamed. A comparison of foreign and inland prices implies a very exact knowledge of costs of production abroad and at home, a detailed knowledge of comparable qualities of goods and also of trade practices which may exist here and not there, so that one price may include a bonus in some form or another and another one may not. And again, the term 'costs of production' remains vague in this respect. Shall we add to it the costs involved in costly financial transactions and perhaps some over-capitalization, which may be reduced after some time?

We have to-day in some industries—I may mention the cotton-spinning industry—the curious state of affairs that some of the very best works from the point of view of

technique have been showing unfavourable economic results, since they have to bear the high charge of financial reconstruction or of uneconomic capitalization. This being the case, how should the fair price be calculated? Indeed, considering all these circumstances, one has to come to the conclusion that the problem of fair prices cannot be solved by investigations, however well meant, and it has become more and more the conviction that an abuse of trust or cartel price policy can only be taken for granted if the increase of prices is very considerable and evidently arbitrary. Inasmuch as, of late in England, the adoption of tariffs has necessarily been coupled with the idea of maintaining, or even increasing inland prices the problem has become still more complicated, since it is here, as in other countries, that the world market price plus duty represents the highest level to which prices can be raised, and it remains an open question whether a cartel or trust by exploiting this possibility to the utmost is not simply making use of what the State is granting. In short, all these facts have been active in giving to the problem 'monopoly and prices' another face. The popular habit of blaming an existing industrial combine, wherever a price was considered to be too high or wherever a rise in prices came as a surprise, has given way to more thoughtful consideration and the traditional idea that combines are necessarily acting against consumers' interests has become limited to such gross affairs as the recent Pepper Scandal. Another point must be added. Since the beginning of the Great Depression the tendency all over the world has been to look rather to rising—though slowly rising—prices as a possible means of bringing back prosperity than to further declining ones. It has become more and more evident that low prices should not be taken to be identical with healthy prices, as in fact between low prices and depressed prices there is a wide gap. If industrial combinations are really effective in slowly raising prices to a more profitable level this is no longer viewed with the apprehension of the former anti-monopolist.

On the other hand, it has become more and more evident of late that industrial combinations will hardly be inclined to overstrain their power in regard to price policy. This refers principally to commodities of general and widespread use. In our days of vastly increased publicity in all economic and statistical matters a policy of arbitrarily increased prices would soon arouse public resentment and become a real threat to the continuance of such combinations. Again, in most trades the associative element has progressively found expression in the formation of trade associations, which are very anxious to take care of the interests of their members and which would in all probability take very decisive steps to prevent an oppressive raising of prices. If to-day a comprehensive British coal trust should come into existence it would certainly have to be very careful in regard to price policy, as, indeed, coal has become just as popular a commodity as bread or soap, and price fluctuations in coal, iron, thread, leather, &c., are in our days a matter of attention and discussion far beyond the confines of merely trade papers. Besides, in every country, England not excepted, the State has become very much more vigilant as regards the development of and the necessity for interference with economic affairs, and one can say probably, without being contradicted, that this attitude of increased responsibility on the part of the State has, even where a special cartel law has not yet been framed, become some check on anything which would appear to be a reckless price policy of industrial combination.

Taking all these facts into consideration one is able to understand why the price problem of industrial combination is much less acute to-day than formerly, although the number and importance of cartels and trusts have greatly increased. Since it was the price problem which in former days constituted the essential element in all arguments concerned with the monopolistic dangers of industrial combination, it is only natural that the interest taken in this side of cartelization or trustification should have given place to considerations of a much more affirmative and constructive

character. In fact, attacks on industrial combination are to be expected to-day to relate much more to very novel and rather complicated trade practices—such as rebates, bonuses, exclusive arrangements, boycotting, &c.—than to the fixation of prices. In general, inasmuch as the interest in the possible price policy of industrial combination lessened, the attention given to the organizational functions of cartelization or trustification increased. Far-sighted economists, so far as they were not hampered in their judgement by traditional individualistic doctrines, at an early date hinted at the dual face of industrial combination. One aspect is certainly monopoly, and, as we said before, not only would it be useless to deny that every cartel or trust means monopoly of a greater or lesser degree, but also one must add that every step towards concentration in industry, increasing units of production, the beginning of fusions, the interlocking and interlacing of concerns, represents a tendency which may lead to monopoly, and which is pre-monopolistic in itself. But the *object* of monopoly ought by no means to be identified with price policy. Like every other undertaking, an industrial combination must direct its efforts to an increase of profits and of this prices are only one part. The other may consist of a reduction of costs by combined effort and combined economies. It is not very long ago that this side of the development was not taken at all seriously by the majority of the critics of industrial combination.

The assertions made by promoters of industrial combination, regarding the possible reduction of costs and the advantages which might accrue from this to consumers or buyers in the following stages of production, were generally considered as some sort of camouflage to hide the real object of monopolies: that is, the raising of prices. It was argued that cartels and trusts would hardly be willing to reflect the advantages of more economic organization in the price level, as if a combination were not just as interested in low but profitable prices as an individual producer is, if such prices were leading to increasing sales.

Those who insisted that nothing but high prices was the aim of quasi-monopoly were certainly in the position to adduce a very strong argument. Wherever weaker competitors are going to be bought out by stronger firms it may happen, and it has happened, very frequently that the price paid for works is much too high and has to be considered as a permanent and very fatal charge upon the profits of the amalgamated firms. This sort of thing, leading to over-capitalization, has certainly been, and is in some degree still, a very cumbersome burden to some big concerns and certainly is to some extent blocking the way to lower prices, even if the cost schedules of the best works would allow them. In the same way a cartel might in many cases be anxious to use its strength for the protection of just the weakest of its members and therefore to support a price policy which would much more resemble a price guarantee afforded to the less efficient works, showing a differential rent to the most efficient ones, than anything in the line of adjusting prices to the level of the best working undertakings. Although this practice has been to some extent overcome by the so-called quota-purchase, it cannot be denied that it represents a rather doubtful feature in the development of industrial combination. It means that industrial combination, instead of reducing production to that of the most efficient and financially soundest undertakings, takes the role of some sort of guild-protection keeping unsound positions artificially alive. Yet it must be asked whether such development is really and necessarily inherent in industrial combination and not perhaps only representing some defect in the initial stage of the movement towards industrial concentration. Where huge amalgamations take place it must be their aim to squeeze out the water which results from too high a purchase price and, if the amalgamation has really been justified by the greater economies, economic, technical, and financial, to be effected, financial adjustment should *à la longue* not be impossible. Again, in regard to what may be called a 'reactionary' policy of cartels, it should be borne in mind that the process

of amalgamation may go on within the cartel or syndicate and even be accelerated if the cartel is laying too much stress on the safeguarding of the less efficient firms. It has been exactly the experience of the last few years, in Germany, for instance, that a nucleus of trustification has arisen and become more and more powerful *within* monopolist associations, and while formerly it was generally held that the form of quasi-monopoly would be that either of a cartel or of a trust, a view-point which was to some extent justified by the legal aspect of industrial combination in different countries, it has become more and more evident of late that both forms of industrial combination may very well exist side by side in single industries. Cartels and syndicates must in many cases be considered as the attempt to exploit tendencies of concentration in industry which have not yet reached their final stage of comprehensive amalgamation of units. There may be some conditions of concentration, as, for instance, geographical concentration or an inland monopoly or also a natural monopoly, existing in a certain industry, while the number of single units may be too great to enable trustification. The cartel, then, may try to co-ordinate competitors and exploit the conditions of quasi-monopoly at least in the sphere of prices and limitation of production. Amalgamation will then probably slowly follow within the cartel and one, or a few single, undertakings of a dominant position may become the trustlike leaders of the organization without being inclined to renounce the power of the cartel, which may be active in keeping the whole industry in line. Where this development takes place the argument that cartelization means protection to the less efficient loses its significance, and in fact this has been the case in the most prominent instances of industrial concentration during the last few years. Cartelization is most likely to be in most instances the mere forerunner of trustification.

Inasmuch, however, as of late industrial combination has come to be regarded more and more from the view-point of organizational concentration than from that of price

policy, the former aspect of it has undergone another very decisive change. While the first attitude towards combination in England was, as we have been trying to explain, mainly that of disbelief, followed by a period of at least distrust and attack, both attitudes being at any rate negative or at least apathetic, we find ourselves to-day confronted with the very reverse of such attitudes. Industrial combination—though this term is not always applied to what in fact is meant—has become an outspoken organizational ideal of many and very important sections of the political community. To a large extent this change is due to the entirely reversed conditions which under the pressure of the Great Depression have manifested themselves as regards the value of competition. Just as low prices have for, perhaps, the first time in the development of modern industry lost their undisputed appreciation in regard to the general economic welfare of national life, so has competition, which in former days was seldom viewed with apprehension except by producers, suddenly become stamped with the stigma of over-production and economic disturbance. Over-production after the war, over-rationalization, and other circumstances had led to a state of competition, which seemed to nullify that healthy process of compensation which in former periods had adjusted automatically, by raising demand and consumption, a surplus capacity in industry. The surplus of productive capacity has become chronic, and this state of affairs is aggravated by the fact that the effect of such over-production is spread, in many of the greatest industries in England, over many types of undertakings, efficient ones and less efficient ones. This sort of over-competition presents a widely different problem to that which in former days led to depressions of much shorter duration. Just as we must distinguish low prices from depressed prices so we ought to distinguish over-competition, as a feature of a regularly occurring reaction from periods of prosperity, from over-competition which depresses industry as a whole without any visible prospect of being alleviated automatically within some few years.

We had such over-competition before the war in the German coal and potash industries with the result that the State had to step in with compulsory cartelization, and, since the Great Depression, and especially under the influence of a much too hasty rationalization, we have it to-day all over the world. It makes a difference whether, in an industry, temporary adverse conditions necessitate the dying out of certain smaller or less efficient undertakings, which can only make profits when the sun shines—as is sometimes the case with some of the pure pig-iron furnaces—or whether we have to face the problem of redundancy as it presents itself to-day, when, for instance, in the English cotton-spinning industry at least seven million spindles, if not ten million or more, are to be considered as being definitely redundant in the so-called American section. This point is frequently overlooked by such writers as Professor Robbins, who think that the whole problem would be exhaustively solved if the State, as he says, would adopt 'the maxim of doing nothing to bolster up monopoly' and if nothing should be done 'which will encourage business men to believe that they will not be allowed to go under if they make mistakes'. This, I may say, old-fashioned view would, if at all, merely apply to the former aspects of over-competition; the just mentioned present state of over-competition is due to quite other circumstances than to the unavoidable shortsightedness of some manufacturers, or, to use Professor Sargant Florence's apt phrase, to some illogic of operation, and if such doctrines of *laissez-faire* as Professor Robbins puts forward should be adopted, the existence not of some single undertakings but of whole groups of industry, and therefore the common welfare, would be endangered.

It is this new aspect of industrial competition which has given a new aspect to industrial combination. Inasmuch as the present over-production with all its effects upon profits is more and more regarded as a condition which cannot be altered or improved merely by a process of automatic resorption of the less efficient—though under

other circumstances not unprofitable—undertakings, the attitude towards industrial combination is changing from that of negation or passive interest to that of approval and support. The term of industrial combination is more and more losing its ugly monopolistic attributes and is becoming associated with those more amiable features which are represented by its possible functions in regard to a healthier organization of competition. This, it seems, is still more the case with regard to the trust form of combination, which seems best fitted to deal with redundancy, more efficient organization of sales, introduction of a better technique, &c., than with regard to cartels, which, as we have seen before, are always liable to safeguard the less efficient members. But, all in all, industrial combination is becoming a sort of new ideal of industrial organization, able to deal first hand with the chaotic conditions of over-competition by co-ordinating conflicting interests through the medium of associative measures. And inasmuch as in England there was, and still is, some very pronounced reluctance to get the State and official administration mixed up with the solution of these problems, such collective organization of producers themselves is even supported by many of those who are still believers in former individualism, but who regard the collective, though powerful, organization by industrial combination as the lesser evil when compared with State administration of industry.

The aspect of industrial combination in England is now entirely changed. Industrial combination, though under different names, has become a sort of favourite slogan, producers are exhorted to combine in order to save their fellow industrialists, tariffs are granted upon the condition of a new organization of industries which is meant to be combination, and where no attempt at combination is made manufacturers have to bear the reproach of being utterly unmodern. To a foreign onlooker it is an interesting feature of British economic thought that this kind of reversal of attitude of mind has not been infrequent in its history. The reason may be that the highly developed political life

in England exhibits a special liking for what are called 'topics', which are taken up with great enthusiasm and which form for a longer or shorter period the favourite theme of popular and political discussion. We have had, for instance, a period of English rural economy, from the time of Arthur Young, Sinclair, and others to Sir James Caird and his followers, when the large farm was regarded as the non-plus-ultra of agricultural wisdom. Small holdings were regarded as an entirely inefficient form of agricultural unit. Then came a sort of renaissance of the small holders who had so much declined since the end of the eighteenth century. From the nineties of last century the smallholder became once more the favourite topic of rural politics. The large farmer was suddenly blamed for agricultural depression, for his obstinacy in not stepping into new and more profitable branches of agricultural production, while the small farmer, who had through a century been criticized for his inability to employ machinery and modern appliances, was most warmly praised for his personal qualities, his attachment to the land, and his working family. It seems almost that the same kind of thing is going on with industrial combination. While the monopolistic side of it seems almost forgotten, its advantages in regard to organization have been suddenly discovered and cartels and trusts seem to have become a wanted article. The planning movement and schemes for Self-Government of Industry consider some sort of industrial combination as the very essence of their aims, and the former conditions of competition are regarded as having been no form of organization at all. British economists are sometimes startled by such changed attitudes of mind. What a stranger perhaps would not dare to criticize Professor Macgregor in his very clever study on *Enterprise, Purpose, and Profit* has made the object of the very frank remark: 'We ought to smooth the fluctuation of thought.' But, we may ask, what—apart from politics—is the fundamental cause of such fluctuations? It seems to me to be simply this, that developments of a form of organization are considered by contemporary

students too frequently as containing some absolute value or principles, and that it is seldom taken into consideration that such developments of organizational forms, whether agricultural, industrial, or even financial, are dependent upon certain material conditions which may change very decidedly in economic history. Hardly any one will deny to-day that the small forms of agricultural organization may be very successfully adopted where certain branches of agricultural production are profitable, such as dairying, market-gardening, poultry keeping, and others, while grain-growing and ordinary live-stock farming may be most profitably practised by big farmers. To pretend that a certain size of the agricultural unit has to be considered as 'the most profitable' should be considered as absolutely unscientific, and the same kind of relative judgement ought to be applied wherever questions of the forms of economic organization are debated. It is, indeed, a fatal and rather stupid error when, after 150 years of progressive and prosperous development of industry, it is argued that manufacturers have followed an entirely wrong principle of organization by adhering to competition instead of to associative organization. It is just the same kind of error as that which in times not very remote was brought forward in regard to the existence and possible functions of industrial combination. If we want to smooth our fluctuation of thought we must try to find out what changes in the fundamental conditions governing economic development by necessity involve a change in the forms of economic organization. In doing this we shall be much less liable to overrate the importance of the one form and to generalize what in fact is limited to certain material economic conditions which may exist here and not there.

It is from this point of view that an analysis of the fundamental conditions leading to industrial combination merits special attention. Research into the special economic conditions which have been responsible for the existence of cartels and trusts should not be regarded as being merely a matter for historical study or explanation. Inasmuch as

industrial combination is still viewed by many economists as being some sort of sinister device of capitalists or monopolists to exploit the public, bolstered up by State assistance, in the form of tariffs, bounties, &c., or even compulsion, a statement of the fundamental material economic conditions which have brought about a change from free competition to combination seems to be of vital scientific necessity. On the other hand, a really satisfactory analysis of these conditions should be a welcome means of tempering the exaggerated expectations of some people or even movements which come forward with the idea that cartelization or trustification, being some new revelation of the form of industrial organization, may be applied like a pattern, wherever one wants, and that it is simply lack of initiative on the part of producers if this is not done. Now, it is strange to note that economic science has yet failed to explain in an exhaustive way these economic conditions which have led from an age of free competition to one of combined organization in industry. There have been explanations enough, but they have all been of partial value and they have been, in the main, based upon conditions of quasi-monopoly which at times may have been of prominent importance, though not of either permanent or comprehensive importance. There was a theory that 'tariffs were the mother of trusts'. But industrial combination arose in England as well, under free trade, and there are many industries cartelized or trustified, needing no tariff at all, while again we have instances where a tariff has not coincided with the formation of combinations. The highly protected German textile industry, for instance, has always been something like a stepchild of industrial combination. Then it was argued that natural monopoly connected with the soil was the fundamental cause of industrial combination. This naturally relates not only to mining but to all industries which are directly or which may be indirectly associated with the supply of monopolizable raw material. But we have numbers of combinations which have no relation to such monopolies at all, as in this

country Coats or Courtaulds or the Distillers or the makers of electric lamps. Then it is said that the progress of technique leading to a huge size of plants is the fundamental condition of combination. There is certainly a truth in that. A huge undertaking, by concentrating production, bears the germ of monopoly in itself. But why does this kind of industrial undertaking exist here and not there, and why has this development arisen, since the eighties of the last century, on the top of a development of technical progress which had been going on for more than 100 years? Is the new technique something merely accidental, arising here and not there, and therefore industrial combination also merely the expression of accidental technical innovations? Or should we choose the rather eclectic method of pretending that a number of circumstances, if accidentally combined or chained together, may lead to industrial combination? I think we should not, because this would be no final explanation at all. What, then, should be considered as the essential and fundamental conditions which have led to industrial combination in our days? I think that we have to start with the revolution in transport which set in after the seventies and was greatly accelerated in the later decades. This revolution leading to mass supply of goods in an unprecedented way caused concentrated conditions of production and distribution not known before. It enabled the exploitation of the treasures of the earth wherever they were found in the world almost regardless of the costs of transportation, and since these treasures are in the main concentrated at relatively few points—as are ores, coal, metals, oil, potash—the revolution in transport created monopolist points of production not known before. The stages of production of industry were frequently disrupted and dislocated in favour of such raw material supply, and concentrated points of production of international raw materials were now supplying the concentrated far distant demand for consumption or for the following stages of production. This is geographical integration leading to concentration. In the half-finishing and finishing lines this

integration was frequently, though not necessarily, arrived at by tariff protection. National integration of industry in the age of diminishing local supply, as brought about by the transport revolution, was the counterpart of international natural monopolies in the national sphere. The concentrated mass demand—either national or international—was to be satisfied most economically by concentrated mass production. It is this condition of concentrated mass demand which makes the large undertaking profitable. But the chances of economic and technical concentration may differ in different industries. New industries, like those of electricity, rayon, aniline dyes, have from their start developed a technique by which a few huge undertakings are able to supply the new demand. In other industries geographical concentration did not find its organizational expression because the number of competitors was too great. In England this has been the case with coal, ever since the Newcastle Vend broke down. In Germany the potash-mining industry held before the war an absolute international monopoly; there was perfect geographical integration, but the number of undertakings was so rapidly increasing that a cartel had to be backed by compulsory measures by the State. It is therefore of importance whether the conditions of mass demand created by the new transport facilities coincide with technical possibilities of exploiting them by concentrated undertakings. If this is the case, the road to cartelization or trustification of the relatively small number of competitors lies open. In other cases the progress of such technical concentration may be slow, and a cartel or association may merely try to anticipate the still outstanding development of amalgamation. But the conditions of mass concentrated demand must be given. The American meat-packing industry would never have been possible in the Eastern States of the U.S.A. Even now the old-fashioned butcher supplies the quick local demand in the old-fashioned way. But when it became possible to supply a huge population with meat from far distant centres concentrated demand made possible concen-

trated production, which again could be conducted by a few gigantic undertakings applying an hitherto unknown sort of machinery. And the formation of the beef trust was only a step farther. These, then, are the fundamental conditions implying industrial combination. It is the revolutionary progress of transport which has created concentrated mass demand. Wherever the existence of such demand coincides with the possibility of concentrating production into increasing units—a possibility dependent on technical and economic factors—the foundation of quasi-monopoly or combination will be laid, in so far, of course, as these increasing units are assumed to supply an ever greater share of the entire demand. This tendency in itself is monopolistic. Whether the condition of monopoly will sooner or later be exploited by the manufacturers may depend upon some psychological factors, but there will never be, and there never has been, any really effective psychological obstruction to combination in the long run preventing the realization of conditions favourable to monopoly. It is not accidental at all that in rails, over the whole world, so far as rails are produced, there was very early national and international cartelization, while in some other products of the steel industry combination does not even now exist in all countries. One should only compare the uniform, concentrated mass demand for rails and the technique of rail-making, complying from the beginning with the application of modern machinery in a few undertakings, with that of, say, tin-plate, in order to understand why cartelization in both sectors of the same group of industry has had so different an experience. Well-meaning planners ought not to criticize producers for the lack of associative enterprise without paying due regard to the very differentiated and complicated conditions of concentration which govern different industries.

If, however, we arrive at the conclusion that industrial combination, as it presents itself to-day, is neither provoked by some clever tricks of industrial producers nor the outcome of some accidental or occasional circumstances of

industrial production or essentially of some State protection, but that combination in all its many forms, ranging from amalgamation, communities of interest, gentlemen's agreements, holding companies, to some final stage of cartels and trusts, should be regarded as the expression of some fundamental economic law governing the possible alternative between free competition and an associative form of production, we ought not to fail to understand that industrial combination can be regarded no longer as an unnatural or artificial method of industrial organization, but as just as organic as was the system of free competition. Of course, in recognizing this new aspect of industrial combination, many formulas and economic terms which might have been expected to be of eternal value will have to undergo a revision. First of all, even if we regard to-day the associative functions of industrial combinations as of greater importance than their monopolist features, this does not do away with the fact that industrial combination by embracing overwhelming sectors of an industry will acquire an economic power which the single undertaking never had. In fact industrial combination may influence the whole aspect of the administration of industry, and in having this power it may become an economico-political factor which may endanger the rights of other private interests or even the interests of the whole economic community. The State, therefore, must in some form or other retain some influence in regard to this new organization of industry: it must at least see that there is no abuse of economic power, if it does not want to become a partner in the organization itself. But just here the difficulty begins. What is abuse of power? While to-day, as we said before, the monopolist price problem is in most cases not a matter of acute apprehension, there is the problem of trade practices, consisting, for instance, of exclusive agreements, boycotting, fighting outsiders by bonuses granted to loyal partners of a combination, the attempt to bring pressure to bear on wholesale traders to submit to the rules of the cartel or trust, and other practices. Should the State protect those who feel

themselves hurt by such methods? There can be no doubt that there are trade practices which must be considered as being essentially against good morals. But others simply aim at the necessary fortification of industrial combination, the aim of which must be to be all-embracing or totalitarian. If we consider industrial combination to be the expression of some new organic state of industry trying to develop the most efficient utilization of its resources by harmonizing competition, dealing with redundancy as far as possible, planning production ahead, seeking more efficient methods of distribution, an outsider who may try to counteract all these functions which the majority of an industry has adopted, exploiting the advantages achieved by combination without contributing to it, and, as Professor Macgregor has put it, falsifying the appearance of economic organization, should not be regarded as an object of sympathy and worthy of State support. While compulsory cartelization or amalgamation may be to many people the non-plus-ultra of anti-individualistic measures, the legal suppression or prevention of certain practices used by industrial combination to enforce unanimity may be under such conditions just as well regarded as being some sort of compulsory competition, though to some people it may appear to be done in the name of liberty. So long as the more efficient members of a trade do not abuse their collective power, but even use it for the 'common good', there should be no reason why the less efficient should be allowed to abuse their organization in the name of free competition. But there are other problems, arising also from the fact that industrial combination, in contrast to the former single undertaking, is aiming at a comprehensive control of whole groups or sectors of industry. The former industrialist had no difficulty in finding the necessary capital for his undertaking by the regular channels of credit. The regular industrial joint stock company was in a position to get new capital if the course of its business development was assured and the enlargement of its activities resulted from progressive economic conditions. The finance of industrial combination generally presents

other problems. A combination is in a different position as regards its capital requirements. It wants capital to buy out weaker firms and to reorganize the whole industry by methods which it thinks advisable and which may prove very successful after some time, but which also may involve some unfortunate experiences, at least for the first years. This alters the position of industrial credit entirely. While German banks have from an early date been rather anxious to assist by their financial aid the formation of industrial combination, amalgamations, fusions, and trusts, the English banking capital has in the main refrained from doing so. English banks have been anxious to uphold the principle that deposits should not be taken as a basis for industrial credit of that kind. While in Germany banks have had to go through very serious times after the events of 1931, which were in part the consequence of much too liberal credit to industry and an exaggerated belief in its further development, English banks have avoided this risk. This has certainly been an advantage to English banks. But the question remains whether this policy is an advantage to English industry, and especially to those industries which are in want of capital in regard to their reorganization. If English banks declare that they will be glad to support certain industries with their capital, when these industries have put their house in order, just when the house cannot be put in order without new capital, this represents a very vicious circle indeed. The case cannot be analysed here. But it may be mentioned to show what entirely new and very imperative problems are arising within the sphere of industrial combination. But if once the possible functions and advantages of industrial combination as the new order of large parts of English industry have become fully recognized, there will be no difficulty for British economic thought in facing impartially the problems connected with such development, however revolutionary they might at first appear.