

Mergers and Industry Concentration in Britain (*)

The principal concern of policy on mergers turns on their alleged propensity to increase the concentration of industry thus reducing the intensity of competition or even creating some substantial degree of monopoly. There are related "mischiefs" as the 1965 *Monopolies and Mergers Act* expresses the matter. Companies protected from the rigours of competition can become cosy and unenterprising. Too large an empire may leave its management out of touch with the various subsidiaries, slow to take decisions or press through with necessary re-organisations. Valuable innovatory opportunities may be lost in the complexities of communication or the inertia of committee life, and so on.

Apart from the dangers arising from concentration and large size there can, of course, be no objection to mergers. Indeed they are positively beneficial in their action. To use the economist's jargon, they assist in the creation of economic welfare. Mergers help maintain a viable market in industrial properties — a service all companies require sooner or later. Frequently they permit the re-integration of old assets (at less cost than new construction) into new organisations. For some companies they help spread the risks of business decline or failure. If successfully carried through, mergers can become an instrument to stimulate economic performance, internally on management and technical matters, and externally between companies in respect of products, sales promotion and the like. Economies of scale and the fuller employment of talented management and professional services are made possible. In sum, an essential element in the flexibility and economic growth of industry is secured through mergers.

(*) This paper was first the subject of a seminar at Nuffield College, Oxford, where the Author was a visitor during the first half of 1969.

I - EXPERIENCE OF PAST MERGER WAVES

How substantial in fact, has been the contribution of mergers to industry concentration?

Consider first the U.S.A. (where the figures and documentation are fuller than elsewhere on mergers). Mergers first became frequent in the 1870's and 1880's as manufacturing industry rapidly matured after the Civil War and began to experience the benefits of railway transportation and the then rapid advances in metals treatment and engineering technology. A merger wave culminated these developments during 1879-1903 leaving its mark on the steel industry, chemicals, petroleum, canned meat, cigarettes and tobacco, non-ferrous smelting, typewriters, etc. Industries characterised by small and medium-sized companies were transformed into groups dominated by one or two very large firms. This wave tended to produce the traditional-type monopoly. And it was so great in magnitude, relative to the then population of manufacturing industry, that, "it laid the foundations for the industrial structure" that has characterised most of American industry in the twentieth century. Even by the mid-fifties one third of the largest 100 manufacturing companies could date their most important merger to the period before 1905 (1). A main motivation of many of the more spectacular mergers was market domination. But it was true also that mergers arose from attempts to stabilise industry by insulating them from the worst effects of the trade cycle, periodic excess capacity and opportunistic, short-term price-cutting campaigns (for example in railways and steel), a phenomenon which also troubled the cement and the soap industry in Britain in the same period (2).

In 1924-29 a second merger wave resulted from the growth and technological advance for the automobile industry, of aluminium, electrical engineering and the radio industry. A feature of this wave was the emergence of oligopolistic structures: two, three and four firms dominating the industry, rather than single-firm monopolistic dominance. And a third merger movement occurred after World War II, encouraged by inflation, a tax-advantage situation plus a buoyant stock market.

(1) R. L. NELSON, *Merger Movements in American Industry*, (Princeton 1959).

(2) See P. LESLEY COOK, *Effects of Mergers* (Allen and Unwin 1958).

The U.S.A. Federal Trade Commission, in a report, was led to express alarm for the consequences of this post-war merger wave. In doing so it was carrying on a tradition established in the late 1920's by Berle and Means' famous analysis, *The Public Corporation and Private Property*, which forecast, among other features of the forthcoming "managerial revolution", that the largest 20 companies would control 70 per cent of all corporate enterprise in the U.S.A. by 1950. However, long before that date scepticism on the Berle and Means' thesis was well established. The Federal Trade Commission's doctrinal statement stimulated sharp and cogent academic repartee since, even on a superficial examination, it was apparent that although post-war mergers were numerous and in some cases involved very large transfers of industrial assets, they more frequently combined small and medium-sized rather than large companies. Indeed some mergers had the effect of diminishing the market power of certain of the giants on the U.S.A. scene (3).

The most useful evidence as to the effect of mergers on concentration emerges from long-term statistical analysis. Adelman of M.I.T. showed that manufacturing companies with assets of over \$50m., 139 of them, held in 1931 50 per cent of all manufacturing assets. In 1947 the corresponding share was only 45 per cent. Concentration had receded during World War II. Berle and Means' analysis had overlooked the future creation of numerous, new, small companies; also the growing share in manufactures of small and medium-sized enterprises. Employing another, if anything more relevant measure, Adelman also showed that industries with concentration ratios of 50 per cent or greater in 1901 accounted for about one third of the value-added of manufacturing production. The corresponding set of industries by 1950 had only one quarter of value-added production (4).

(3) Concentration indexes in the U.S.A. usually show the percentage share of a census of industry held by the four largest companies. In Britain the convention is to calculate the share of the three largest. (See ALEX HUNTER, *Competition and the Law*, Allen and Unwin 1966).

(4) M. A. ADELMAN, "The Measurement of Industrial Concentration", *Review of Economic and Statistics*, vol. XXXIV (1951). It is interesting to compare Berle and Means' prophecies with the present state of industrial concentration in the U.S.A.

Roughly, the largest 200 companies accounted for 37 per cent of manufacturing output in 1954. In 1963 their share was 41 per cent. The largest 50 companies — including such giants as U.S. Steel, General Motors, Westinghouse Electric, Boeing, Union Carbide, Du Pont, Goodyear Tyre and Rubber, etc. — had in 1954 23 per cent of manufacturing output and in 1963 25 per cent. Concentration among the top companies advances very slowly.

In Britain, for some so-far unexplained set of reasons, merger waves have taken, with only a slight lag, a roughly parallel course. There was an initial merger wave in 1898 to 1904, most marked in chemicals and explosives, whisky distilling, mineral extraction and iron and steel. Rapid technological advance probably hastened mergers in this group. A similar movement in cement, wall-paper, tobacco and textiles appeared on the other hand to be undertaken to secure some of the advantages of market dominance and to eliminate some of the worst vicissitudes of opportunistic short-term price cutting (5). Britain's second wave of mergers occurred in the late 1920's and early 1930's. In the newer industries, motor vehicles, electrical engineering and radio, the predominant motive probably derived from the rapid development of technology. But in certain older industries pushed to over-capacity by World War I — ship-building, iron founding, chain making, textiles, fertilisers and matches — there were surplus capacity problems resolvable only by so-called "rationalisation" measures in which companies in difficulties were bought out by the more efficient members of the industry. Some considerable empires emerged during this period when the doctrine of the efficient giant was favoured, unofficially and semi-officially, in Britain. A procession of mergers made up I.C.I.; also Unilever (soap and margarine); and Tate and Lyle (sugar). Finally, Britain's third merger wave started slowly in the late 1950's and continues strongly in the 1960's. The end is not yet in sight. We shall consider some of its problems later.

There is no reason to suppose that, in Britain, the development of industry concentration from mergers varied very differently from the experience of the U.S.A. In one lengthy study, taking in the whole population of registered companies from 1885-1950, concentration trends were analysed over ten-yearly periods. It appears that for each decade the industrial population did indeed concentrate as some companies failed or were merged with others. But most of this increased concentration was offset by the addition of new enterprises appearing in the figures for each succeeding decade. Thus, after the first merger wave, for the years from 1905 to 1939, the net increase in concentration over this long period was slight. And from 1939 to 1950 (although the figures are not completely decisive) it

(5) See Section II on the causes of mergers.

appears that concentration actually fell. Another study, measuring concentration by industry groups, indicated a similar result (6).

The lesson to be learnt from the history of mergers is significant. Mergers occur continuously and, at certain times, in very marked waves. Certain facts as to their causes and timing are established — but just as many mysteries. They do not appear, so far, to have had any strong permanent effect on the concentration of industry and therefore cannot be said to have any general predisposition to create monopolistic conditions. Over the whole population of manufacturing companies, mergers (and failures) appear always to be offset by a sufficient addition of new enterprises and by the contribution of these to production. The birth of new industries, and increasing diversification of products in the 20th century, also no doubt have helped significantly to dilute the concentration process.

One important reservation must be made. Although, overall, concentration did not increase much from 1905 to 1950, particular industries did acquire, and have retained, much higher than average concentration indexes. Chemicals, aluminium, glass containers, motor vehicles, tyres and rubber, are well-known examples in the U.S.A. economy. In Britain, petroleum refining, man-made fibres, tobacco, sugar, explosives, dyestuffs, margarine, cement, flat glass, soap and detergents, are all unusually concentrated industries (7). More recently, motor vehicles, aircraft and electrical engineering have, through merger, also sharply increased in concentration. However, as already hinted, the typical concentrated industry is nowadays "oligopolised" rather than monopolised.

On the evidence one must conclude that the experience of the past is reassuring. There is little good reason, despite current merger trends, for assuming that concentration, overall, goes on and on to create comprehensive monopolies in all major industries. On the other hand, one must look carefully at certain industries.

(6) P. E. HART and S. J. PRAIS, "The Analysis of Business Concentration", *Journal of the Royal Statistical Society*, Series A, vol. 119 (1956); and R. EVELY and I. M. D. LITTLE, *Concentration in British Industry* (Cambridge U.P. 1960).

(7) With concentration indexes of 65 per cent or more on the 1958 Census of Production. (See HUNTER, *op. cit.*).

II - OBJECTIVES, MOTIVATIONS, CONDITIONS

Students of merger movements, ideally, prefer to isolate the "causes" of merger — meaning some set of objective circumstances external to companies and conditioning them towards merger. However, more frequently than not, writers find themselves discussing the internal, subjective reasons for undertaking mergers which companies admit to. The problem here is largely semantic since the outside circumstance which "causes" a merger is, so far as the company is concerned, a part of the motivation to act in a certain way. For convenience, in this paper we have chosen to look briefly at each of three classes of reason for mergers: at the long-term *objectives* of companies in respect of mergers; then at their more immediate *motivations*; and lastly at some of the *external conditions* which help create the appropriate atmosphere for merger action.

In considering the reasons for mergers, one point must be kept to the forefront. Opportunity and alternatives play a significant role. Companies can adjust and develop from their own resources. And most large companies, given time, will attain their objectives in this way. Merger operations therefore offer only an alternative. One interesting facet is why, so often, mergers are the preferred route for economic growth.

For companies undertaking mergers there may be several long-term *objectives*. (i) There is the opportunity to obtain economies of scale in production. These are most numerous in the process industries — petroleum, industrial chemicals, plastics materials, iron and steel production, aluminium — where capital-intensive techniques applied to continuous production of a fairly uniform group of products or materials over a twenty-four-hour cycle yield substantial reductions in total unit costs. Other forms of manufacture — engineering and assembly, metal fabrication and extrusion, textiles, food processing — also yield scale economies. But the scope here is much less. More than one material may be involved. And the difficulties of continuous production in assembly become intractable the more complicated the product. Or products are differentiated thus reducing effectively the size of the market for any one line of production. (ii) There are other economies of scale open to companies, through merger, by amalgamating managements, combining distribution and marketing functions, by integrating design and research departments or sharing

engineering and accounting services. But, since these areas of operation usually account for a small proportion of total unit cost, the possible gains are severely limited. (iii) There is the need to keep pace with an advancing technology. A company may merge to acquire the best that is available — quickly. (iv) In a dwindling market rationalisation may be a sensible and necessary target — the shipbuilding and cotton industries are classic cases — and mergers may be the most useful instrument. (v) The stabilisation of an industry which is subject to numerous short-period pricecutting episodes and to uncontrolled excess capacity, may be a long-term objective — cement, textiles, shipbuilding and electric cables have had such experiences. Mergers are here a potent weapon. (vi) Monopolisation, or at least some substantial control of the market, can be another objective.

Although important, these strategic long-term objectives are not necessarily at the forefront of consideration of a company even when it clearly perceives them. The necessity to think about, and seek, a merger frequently arises in a different guise: in an atmosphere of rising costs, dwindling demand and revenue, the competition of superior products, the prospect of new techniques of management or production, and so on. In the event it is often only the short-term motivations which are recognised and exert the pressures.

Under *motivation* one should first consider the motivations of sellers of companies (8). In one American study half of the small companies examined merged into larger groups because of management problems (for medium-sized companies the relevant proportion was one quarter). The difficulties most often mentioned included: loss of key management by death; the need to reduce the management load on senior executives; the incidence of retirement among leading figures of the company; an inability on the part of senior managers to keep pace with standards set by competitors; a desire to be connected with a larger group; and dissension among owner managers (9).

(8) Most frequently it is the operations of buying companies which receive attention. But for every buying company (leaving aside the small number of companies taken over reluctantly but eventually with the consent of shareholders) there is at least one seller. The supply of sellers is a not unimportant consideration.

(9) J. K. BUTTERS, J. LINTNER and W. L. CARY, *Effects of Taxation: Corporate Mergers*, (Harvard U.P. 1951). See also J. A. BUSHNELL, *Australian Company Mergers*, (Melbourne U.P. 1961).

Financial gain offers another set of motivations among sellers. They may wish to capitalise the value of owner-manager elements in the equity of the company especially where its value is heavily dependent on owner participation; they may have assets with a special market value (sales outlets, land, engineering capacity or patentable processes) for buyers; they could be anticipating a fall in the value of their share investment for various reasons; or there may be a desire to diversify shareholdings in order to provide greater security and possibly superior marketability and value (10).

Second, there are the motives of buying companies. Primarily, acquisition by merger is for the obvious reasons: to secure additional manufacturing capacity; to absorb a marketing-distributive organisation with its outlets and goodwill; or to obtain a specialised research division or a managerial group of unusual talent; or access to a promising innovatory process or material. Indeed, a company may be prepared to take over all of these functions in order to acquire those of special value to it. Minor or subsidiary motives can include a wish to obtain access to the working capital or credit-worthiness of the seller; and the acquisition cheaply of land, buildings or retail outlets to be disposed of speculatively. Occasionally the aim is to diversify away from a dwindling market (cigarettes and tobacco for example). Sometimes it may appear opportune or necessary to purchase an ailing company to prevent it falling into the hands of competitors (the purchase of a glass bottle firm by a drug company or a pressed steel firm by a car assembler).

Third, financial and technical factors can motivate companies and make mergers desirable, perhaps preferable. At the simplest level of consideration plant, land, distributive facilities and retail outlets may be acquired more cheaply, and quickly, by merger than by internal expansion. The finance for an existing set of assets may be more easily and cheaply raised than for new construction. A further factor: in taking over the management and labour force of an existing company a short-labour supply situation or a difficult organisational problem may be avoided. Similarly, a merger, if it includes a recognised line of products together with its market outlets, reduces or eliminates the corresponding entrepreneurial task

(10) And of course there may be taxation advantages. If death duties are severe and if capital-gains taxes are zero or lower than income taxes, individual owners, as distinct from companies, would have strong reasons for disposal of assets. (See BUSHNELL, *op. cit.*).

of promotion. Or the acquisition of a successful research and development division may be preferable to venturing into this area from scratch. In sum, the uncertainty associated with any new venture is reduced, for a given capital outlay, where the buying company, through merger, takes over an existing, operating organisation rather than embarking on the creation of something new.

Turning to the *conditions external* to companies — the “causes” of mergers — the following seem to have been the most important:

(i) From time to time the advances of scientific and engineering knowledge involve an industry in years of technological development. In order to assimilate new methods, horizontal and vertical integration of the different levels of raw material preparation, manufacture, fabrication and assembly may be commercially mandatory. And mergers consequently are very convenient. In the iron and steel industry in the past, openhearth techniques and heat conservation between different stages of production opened up substantial scale economies which required much larger companies and therefore mergers. If certain experiments now going on (to reduce iron ore to steel without the intermediary of the blast furnace and oxygenise it in a continuous process towards the primary fabrication stages of steel products) are successful, then the industry may find itself in another phase of integration. In motor vehicle assembly the evolution of the modern unitary body-chassis has emphasised, in some of the most formative years of the industry, the great economies to be obtained from long runs of press work and standardisation of body panels. To a lesser degree automatic machining and transfer in engine construction and the specialisation of electrical and other equipment among suppliers have contributed to economies of scale. The result has been the merger of many well-known marques into larger and larger corporations. In Britain one can predict with some confidence, because foreign experience has made it evident, that even larger throughputs of single or closely-associated models can yield further unit cost reductions. Internationally, the merger movement is far from finished in this industry. In electronics, the evolution of transistors and printed circuits, and now micro-circuitry, has to a large degree eliminated the scope for small-scale assembly based on supplies of specialised components from much larger manufacturers of equipment. In shipping, the introduction of large bulk carriers, and now of container ships to replace

cargo liners, promises to continue the long-established propensity of this industry towards mergers.

(ii) A major innovation in one industry may be the catalyst of change, leading to economies of scale and integration and therefore concentration in other industries. The classic examples are provided by the introduction of railways and modern steamships. The consequent enlargement of markets in international trade and within Europe, the U.S.A., India, Australia, Canada and the U.K., for engineering goods, steel, meat, textiles, flour, cereals and minerals, pioneered some of the largest mergers of the late 19th century. The introduction of man-made fibres, by the chemical industry, has had profound effects on the structure of the wool and cotton textiles industries. Large capacity computers provide a recent example of the external innovation phenomenon. To take advantage of the storage, inventory and sorting capacities of these devices, banks and insurance companies have regarded mergers more favourably than they might otherwise. And certain airline companies and transportation handling enterprises, in sharing or hiring computer capacity, may well be on an intermediate stage to merger. One new catalyst, provided by physics and chemistry, is a structural material based on a matrix of carbon fibres. Engine construction and airframe design are likely to be revolutionised as a result of its large scale production.

(iii) The incidence of mergers may be increased by conditions peculiar to a particular economy. Britain's industrial structure is old. Some industries reached one stage of maturity before 1914, others in the 1920's and 1930's. Inevitably, after each of these developments, obsolescence set in to some degree. And, at different periods, there has been scope for reorganisation, integration and merger. Steel, cotton, shipbuilding, chemicals all have had their periodic renaissances and no doubt will have them again. Motor vehicle assembly, electrical engineering and electronics currently are enduring the pangs of industrial reorganisation.

(iv) Foreign competition is a perennial cause of mergers. I.C.I. was formed partly out of the need to meet the competition of overseas companies. Imperial Tobacco likewise was a merger to fend off the American giants. In the years since World War II aircraft, computers, machine tools, electrical engineering and shipbuilding, have in various ways adjusted to the foreign competition

problem by merger. The prospect of entry into Europe encouraged some anticipatory merger moves in British industry. A more specialised manifestation is the reaction of certain industries to American direct investment in subsidiaries in this country and the resulting introduction of different, sometimes superior products, or more sophisticated methods of manufacture and marketing. Currently, the American invasion has helped stimulate mergers — defensive at the same time competitive — in the car industry, diesel engine construction, combustion engineering, computers and typewriters, food manufacture and processing, glass containers and plant construction (11).

On surveying this daunting array of the objectives, motivations and conditions for mergers, it is evident that the data will not easily lend themselves to taut theoretical construction. It is relatively simple to see, after the event, why particular groups or series of mergers have occurred. It is possible, on examining the structure of a particular industry and its surrounding circumstances, to predict with some assurance that mergers will take place in some forthcoming period. But it is very much less feasible to isolate the main factor at work which creates, at one period rather than another, waves of mergers. And certainly it is not possible to point to a predominant principle of explanation for the occurrence of mergers which will solve, for all purposes, the problems of the policy-maker.

However, looking more narrowly at the mergers and monopolisation theme, academic studies overall have yielded some negative advances. They tell us some of the things mergers will not do and are not, on the whole, intended to do. The motive to forestall a competitor — essentially an aggressive move — by acquiring a smaller company is often there. The defensive reaction which uses merger to reduce the area and intensity of competition is not unknown but rarely occurs in isolation. There have to be other advantages present giving rationalisation of the industry's facilities, economies of scale or marketing, or the acquisition of a superior technique or management. And, a most striking consensus on the part of writers, mergers appear very rarely to be motivated by the crude desire to monopolise or by an irrational drive to indulge in

(11) See J. H. DUNNING, *The Role of American Investment in the British Economy*, P.E.P. Broadsheet 507 (February, 1969).

aimless empire building (12). This conclusion is borne out by the reports of the Monopolies Commission where only in the *Matches*, *Industrial and Medical Gases* and *Wallpaper* reports, all concerned with relatively small industries naturally isolated from competition, was there clear evidence of a primarily monopolistic intent through merger.

Consequently, all the observations available strongly indicate that, in general, one should set aside from consideration the monopolistic motive for mergers. Concentration has strongly increased in certain industries and no doubt will continue to do so for various reasons. But, on balance, it seems best to regard mergers as part of the continual adjustment of industry to technological change and competitive pressure — that and nothing much more.

III - MERGERS POLICY IN BRITAIN

Mergers policy is contained principally in the *Monopolies and Mergers Act 1965* — a statute which itself is an extension of the powers contained in the old 1948 *Monopolies and Restrictive Practices Act*. No independent Registrar, as under the 1956 *Restrictive Trade Practices Act*, is empowered to bring a merger before any tribunal. Instead the Board of Trade, notified on all relevant merger proposals, after consideration, may refer a merger to the Monopolies Commission to discover whether "it operates or may be expected to operate against the public interest". After investigation the Commission, in its report, may recommend appropriate action including veto of a proposed merger (or dissolution of a completed merger). This advice the government may take. Or it may not. Or, again, it may adopt quite different measures based on its own reading of the report.

Consequently, although the Commission is in a position to formulate important criteria on how merger phenomena should be handled in the British context, in a quite fundamental sense the total merger situation is not subject to legal process but comes under the administrative discretion of the Board of Trade. The Board has

(12) See for example FRED J. WESTON, *The Role of Mergers in the Growth of Large Firms*, (University of California Press, 1961), and P. LESLEY COOK, *op. cit.*

the initiative in reference for investigation. And the government (in general meaning the President of the Board of Trade) has total discretion as to whether action shall be taken on merger reports from the Commission; and whether it will enforce vetoes or dissolution (13).

The machinery of the Board is therefore worth comment. Under the conditions defined in the Act (two or more enterprises merging to give control over one third or more of the market or the acquisition of a company with assets exceeding £5.0 m.) reference of a merger to the Commission for report is liable, potentially, in a large number of cases. Since 1965 about 350 to 400 mergers or proposals have come to the attention of the Board. The great majority were deemed harmless on a routine inspection. Mergers of importance, calculated on the value of assets involved, or the share of the market in question and the importance of the industry, are researched in order to provide a preliminary assessment of the apparent balance of detriment and advantage (14).

Obviously great discretionary powers are exercised by the Board. Only the mergers on which there is reason to fear a distinct constraint on competitiveness or ease of entry into the industry, or mergers where the government feels there is an important principle to be aired (conglomerates for example), are referred to the Commission. The remainder are permitted to proceed. Since 1965 only ten of the 350-400 examined by the Board have been referred. And of these only four — less than one per cent of the total covered by the conditions of the Act — have had the proposed merger vetoed (15).

(13) The Conservative Government in office till 1963 notably failed to enforce most of the Commission's recommendations.

(14) Formerly, only merchant banker firms, experienced in arranging and consummating the marriage of companies, knew the "rules of the game". But recently the Board of Trade published a booklet (*Mergers: A Guide to Board of Trade Practice*, H.M.S.O. 1969) which sets out the features of all prospective mergers which the Board will examine. These include: the range of products, and substitutes, affected by the merger; the stated motives of the merging companies (is the merger defensive, is it financially motivated, is it designed to eliminate a disruptive competitor, does it seek a new management group); the effects of the merger on competition and the structure of the industry and on entry; which management group will become dominant; what technological advance may emerge; how will international competitiveness be affected; are there redundancy or unemployment complications to be expected; etc., etc.

(15) *Ross Group and Associated Fisheries, United Drapery Stores and Montague Burton, Barclays, Lloyds and Martins Banks and Rank Organisation and De la Rue Co. Ltd.* The reasons expressed by the Commission for vetoing each of these proposals were, in this

One consequence of the great discretionary power wielded by the Board has been a considerable volume of complaint from industry. Companies with merger moves in prospect do not feel clear as to their position vis-à-vis the authority of the Act. And there is, from time to time, in the financial and trade press a cry for "guidelines". The President of the Board of Trade, Mr. Antony Crosland, while he is prepared, as we noted, to make available information on how the Board discharges its duties has resisted the idea that "guidelines" should be made known.

There is considerable cogency in his line of thought. In this area of policy, guidelines, generally speaking, mean a statement of permissible market shares. There is little else the term could mean since normally it is impossible accurately to determine, however much one would like to, the production, managerial or technical economies to be expected from a merger. Nor can one predict the cost and price reductions or the export targets which may be achieved. One cannot even be sure of the probability of success or failure of the merger. Lacking firm measurements of performance there is left only this constraint: a benchmark to set boundaries to the possible monopolistic dangers of mergers. Of necessity, such a benchmark, if adopted, must be conservative.

We can postulate (for the purposes of discussion only) one possible set of guidelines: that where the merger of any two companies will give them 30 per cent of a product market, the merger of three give 40 per cent and the merger of four give 50 per cent, then these results would automatically cause a reference to the Commission.

But such arithmetical formulae give only the most approximate indication of a growing monopolisation or lessening competitiveness. Consider these points: (i) That part of the industry outside of the largest two, three or four companies may not be passive price and product followers. On the contrary they may be fiercely competitive

writer's view, cogent enough although not necessarily carrying conviction for all interested parties and observers. Much depends on how the advantages and detriments of the merger are evaluated. Both exercises involve predictions: on how successfully the efficiency objectives of the merger will be secured and, on the other hand, how the new structure of industry will perform in matters of competitiveness, innovation, price leadership or collusion. There is no scientific approach to these calculations and no golden rule other than experienced judgement based on a cool, detached examination of the expectations of the merging parties.

and, more important, innovatory in character. (ii) The whole industry, though concentrated, may be subject to intensive competition from the substitute products of another industry. Note, for example, the competition between glass bottles and cans (both concentrated industries) and the pressure exerted on each of them by plastic containers. (iii) The industry, including the merged companies, may experience the countervailing power of buyers. Sparking plugs and automotive electrical equipment, heavily monopolised, are sold mainly to large car-assembly companies; steam turbine alternator sets are sold to a central electricity authority; and news-print is sold to publishing empires. (iv) Some mergers can be undertaken in order to undermine the dominance of one or two large companies. Consider the Rootes Group or the merger of computer companies in Britain. To put the matter briefly, a calculation of the share of the market likely to be occupied by a merged group is only the start of analysis (16).

Arithmetical rules, despite apparent precision, are not very accurate and sometimes not particularly to the point in a closed economy. There is one factor, not so far mentioned, which renders them even less relevant. Britain is an open economy. Manufacturing industry is heavily involved in international trade. Large companies in particular find a substantial part of their markets in overseas countries. Thus, for many proposed mergers the conditions contemplated and stimulating the merger — in terms of costs, products, demand, technology, marketing and market shares — are determined not in the domestic market but rather by the competition offered in the total international market. Consequently, while the probable degree of control over the market in Britain is not something to be ignored, frequently it is the parallel set of international trade considerations which set the effective limit to the market power of the merged group (17).

(16) Also, before demanding "guidelines" business men should reflect on this point. If permissible degrees of concentration were established in order to induce more certainly into the situation, the area of discretionary power at present exercised by the Board would be decreased. Thus the number of mergers automatically referred to the Monopolies Commission (with all the attendant problems for the companies involved) would increase. Instead of a referral ratio of around 2½ per cent, 15 to 20 per cent could be sent to the Commission — an increase by a factor of from six to eight.

(17) See the Monopolies Commission on this point in the Annex to the *Rank Organisation - De la Rue Co. Ltd.* report entitled "General Observations on Mergers".

There is certainly little reason to suppose that international markets will offer to British companies stronger monopolistic positions than the home market (and if they did would this be a subject of concern for the Board of Trade?). Indeed all the evidence suggests the contrary — that large companies dominating the British scene are not too important internationally. Consider these figures. In the 1958 Census of Production the one hundred largest enterprises in Britain accounted for 31 per cent of manufacturing output. In the U.S.A. in the same year the corresponding figure was very close — 30 per cent. In absolute terms the one hundred American firms are much larger — two and one half times in employment terms and five times larger in value of output. Thus most U.S.A. industries have access to economies of production, management and finance substantially greater than those of British companies. *Vis-à-vis* Europe the picture is more favourable. In Britain there are (1968-69) fifty-five companies with a capital employed of £100 m. or greater and one hundred companies with £50 m. or greater. In Europe the corresponding figures are fifty-six and ninety-six companies. Concentration, measured in this sense, is therefore (surprisingly enough) not very different as between Britain and the whole of Western Europe. However, in certain areas the competition provided by large European companies is striking in both quantity and quality. In chemicals no European company is as large as I.C.I.; but there are four (three German and one Italian) of about half the size which are also more specialised in some products. In pharmaceuticals, Bayer of Germany is more than twice the size of any British company and CIBA of Switzerland larger than all but one. In motor vehicles a convenient benchmark is provided by the newly-created merger of the British-Leyland group. In Europe, Volkswagen is 70 per cent or more larger; Fiat is 10-20 per cent larger; Ford (Germany) and Peugeot are about three quarters and Daimler-Benz about half the size of British-Leyland. In electrical engineering, Siemens of Germany is not much smaller than the recently-merged G.E.C.-English Electric-A.E.I. group. In electronics, Phillips of Holland is several times the size of the nearest British competitor. Ericsson of Sweden is three times larger than Standard Telephones. And Pirelli is 70-80 per cent larger than Dunlop. These mentioned do not account for all the large European competitors. Then there is Japan, third largest industrial country of the world, with a high degree of con-

centration in all manufacturing industries (18) and particular competitiveness in steel, shipbuilding, chemicals, motor vehicles, electrical engineering and electronics, and machine tools.

It is not difficult to see why Mr. Crosland can confidently make the dogmatic-sounding statement that guidelines "would impose a degree of rigidity which would make no sense in a country so heavily dependent on international trade and so subject to international competition" as is Britain.

There is another side to the same coin. If certain mergers giving high concentration ratios (British-Leyland and the G.E.C.-English Electric-A.E.I. group for example) cannot be referred to the Monopolies Commission because they are not large in relation to world markets, is it not correct to suppose there must be some industries in Britain which are not concentrated enough? The answer is of course, yes. And this is where the British Government policy of encouraging desirable mergers through the *Industrial Reorganisation Corporation* enters. One can predict that, because the I.R.C. role is to give rather than refuse potential monopoly power, its efforts will be subject to a much greater volume of criticism than ever was the lot of the Monopolies Commission. Also, it approaches a difficult and delicate task — the discovery and then organisation of potential mergers which will raise substantially the average efficiency of a whole industry. The creation of this body may be an impractical idea in the sense that only geniuses in industrial administration can successfully pull it off. But indifferent performance is no indictment of the general concept. The I.R.C. is a logical enough part of the empirical, pragmatic approach to monopoly control.

Those who argue that a government is inconsistent which tries to promote mergers through one body while threatening to strike them down through another are themselves guilty of superficial thought. There is no single simple solution for the complex British merger game.

(18) See J. S. BAIN, *International Differences in Industrial Structure*, (Yale U.P., New Haven, 1966).

IV - RECENT MERGERS AND CONGLOMERATES

Recent merger activity is of the greatest interest. The number and value of acquisitions by "large" companies, from data collected by the Board of Trade, is stated to be as follows:

Year	Number of Companies Acquired	Total Consideration £m.	Average Consideration £m.
1964	939	502	0.5
1965	995	507	0.5
1966	805	447	0.6
1967	661	781	1.2
1968	598	1,653	2.8

Note: A "large" company is one in which the net assets are £0.5m. or greater; or the annual income is £50,000 or more. The data here include companies in manufacturing (75 per cent of the total) distribution, construction and transport; but do not include banks and financial institutions.

Sources: Monopolies Commission, *The Rank Organisation - De la Rue* report (June 1969), Annex entitled "General Observations on Mergers", and *Board of Trade Journal*, March 14, 1969.

Note that the number of acquisitions began to decline after 1965. By contrast the total consideration paid for acquisitions (in ordinary shares, loan stock and cash) rose sharply in 1967 and 1968. (Most of this increase was "financed" by exchange of shares. By 1968 only 16 per cent of the total consideration was in cash; and for all large mergers, with acquisitions of a greater value than £50 m., no part of the consideration was paid in cash). *A fortiori* the average consideration (last column) rose. Even allowing for the 55 per cent rise in the value of equity stocks between mid-1967 and end-1968, it is clear, as the report states, that there was a "continuing and substantial increase in the scale of acquisitions". Further, the number of acquisitions per annum of non-quoted companies halved over 1964-68; while that of quoted companies, usually much larger in size, doubled. Thus, more large-to-medium sized companies and fewer small ones were acquired. The size distribution of industry, it seemed to the Commission, must have been affected by this

merger activity although the Commission does not go so far as to state positively that concentration indexes increased.

A survey conducted by the Commission itself for the years 1961-68 gives further point to this suggestion. It took in the whole population of "large" companies in *manufacturing* (net assets of £0.5 m. or more). At the beginning of 1961 there were 1,312 such companies. By end-1968, as the result of merger, only 908 of this number were left — a 31 per cent reduction. This group accounted for around 80 per cent of manufacturing assets over the relevant period. The average values of transfers in 1966, in 1967 and in 1968 were 1½ per cent, 3¾ per cent and 6½ per cent of total net assets. Other firms which grew sufficiently to qualify as "large" companies over the period are not included; but the Commission remarks that their inclusion would have made little difference to these figures. The other significant-appearing result to emerge from the survey concerns the largest 28 companies in the population of "large" manufacturing companies. Whereas in 1961 this group held 39 per cent of the total net assets, by end-1968 the largest 28 (not necessarily the same firms) held 50 per cent of total net assets.

The Commission is carefully non-committal in its interpretation of this data. "There is no reason to think that this merger activity has so far led to the growth of companies whose absolute size is such as to raise important questions for the public interest". Yet the figures presented, on a superficial reading, do suggest that because of mergers the absolute and, more important, the relative size of large companies has gone up significantly; and that correspondingly the concentration of industry has increased. The Commission should have taken its analysis further and given a better perspective on the over-dramatic appearing result of this survey. Consider the following points:

(i) The sharp increase in the value of equity stock between mid-1967 and end-1968, already mentioned, favours the valuation of quoted rather than non-quoted companies, and of large rather than small acquisitions. It therefore overstates to some degree the increase in relative size of the larger companies. (ii) There is an element of internal growth, as the Commission itself mentions early in the text, among the 28 largest companies which cannot be separated out from the effect of mergers. (iii) The total net assets of the 28 largest companies are not the total net assets of all manufacturing companies. The remainder of the population, medium and small-

sized, could have had their assets grow at the same speed or even faster. In this event the concentration effect would be substantially diminished. (iv) Finally, an important technical point. The use of share-market-defined net asset value to measure concentration has a serious over-statement effect. Small companies, in general, are under capitalised (and often undervalued as well) relative to large companies. Much superior methods of measuring concentration are by value of output or value-added in manufacturing. These data are always among the last to arrive on the scene — the 1963 Census of Production figures are as yet unpublished — but their arrival normally has the effect of reducing the apparent size of large companies once they are placed in relation to the growth of their respective industry outputs.

Put another way these points simply state that aggregate concentration figures, although useful for the observation of trends, are not a satisfactory substitute for the observation of concentration indexes industry by industry. The Commission's survey provides good examples to illustrate this issue. The strongest merger movement occurred in eight industry groups: electrical engineering, vehicles, the drink industry, food, clothing and footwear, paper, printing and publishing, and in textiles. In respect of the last six of this list it is difficult to suggest that concentration, by merger or otherwise, has reached the point where competitive intensity is seriously diminished other than in perhaps, certain grades of paper production and men's multiple tailoring establishments. The other two industries (which accounted for two thirds of the value of 1968 mergers and one quarter of all mergers 1964-68) now both heavily concentrated, are somewhat special cases. Electrical engineering, through the government instrumentality, the *Industrial Reorganisation Corporation*, was encouraged in merger activity in order to revive the managerial efficiency of two large firms and to provide a rationalised industry structure better able to compete in world markets. The result, the G.E.C.-English Electric-A.E.I. group, now has around 40 per cent of the industry's output. These are early years in which to judge perhaps; but so far this policy appears both reasonable and necessary. And in vehicles, the British-Leyland merger, substantial as it is, has not placed this largest British vehicle builder at the forefront of the European market or made it one of the world's giants. (See Part III). Nor has the merger so far had

any significant effect on the innovatory drive and competitiveness of the industry.

Conglomerate mergers, so-called, present a rather different set of issues. It is difficult to relate them to the concentration theme of this paper because mergers which are purely conglomerative, by definition, bring together companies with no common products and they therefore cannot add to the market concentration of any of the product groups involved. It must be supposed that the recent references made to the Monopolies Commission (19) were stimulated by the thought that large conglomerate mergers create a dangerous and undesirable concentration of general economic (as distinct from particular market) power. If so this is a most arguable proposition. Certainly, great financial resources *may* confer a capacity to defeat close competitors, by means of low prices and "unfairly" economic distributive arrangements or retail outlets thus leading indirectly to monopolisation of some product lines. Small business interests can suffer considerably at the hands of commercial giants. (The political motivation behind the challenge to conglomerate mergers in the U.S.A. courts, is the strength and insistence of the U.S.A. small-business lobby). And large companies straddling several industries may, through their group plans for investment and rationalisation of acquired companies, move contrary to government plans for the development of distressed or special areas. But most such prognoses are conjectural and eclectic if not downright woolly. There is more than a suspicion of a jejune "conspiracy" theory of big business in most such ideas. In Britain particularly, it is clear that the Board of Trade and other ministries, through referral to the Monopolies Commission and statutory controls on location, have ample powers to control dangers of this sort.

As against these views some business interests maintain that when a conglomerate-type company buys up fragmented industries and financially-ailing companies it is subjecting them to the analytical talents of a group organisation in a position to discover those elements in a business which are inefficient, producing the wrong lines, mismanaged or otherwise made unprofitable. The assets of these can be disposed of and the remaining components brought under strong central financial and management control in order to

(19) And reported in Monopolies Commission, *The Rank Organisation and The De la Rue Company Ltd.* (June 1969); and *Unilever Ltd. and Allied Breweries Ltd.* (June 1969).

develop those plants, and products, which can show a profit. Both the conglomerate and the economy at large benefit from such activities. In this idealised form (20) the conglomerate appears as a sort of free-enterprise Industrial Reorganisation Corporation. There is something to the claim. And one would hesitate to deny, through merger policy, the freedom of conglomerative companies to extend operations to a variety of industries. But, as with the conspiracy theory, the advantage may be too conjectural. It would not be surprising to discover that the talent of many conglomerate enterprises is for opportunistic manipulation of assets in a financial sense as much as, or more than, for fundamental industrial reorganisation. As the Commission dryly remarks in the *Rank-De La Rue* report: "it may also be worth a company's while to acquire another company for the sake of its current profits and its assets alone and without [having] any particular plan for improving the use of its resources. In such cases the effect of a conglomerate may well be to reduce efficiency".

Quite probably government's main concern on the growth of conglomerate mergers is at another level. We live in an age of (controlled but steady) inflation. Many companies have assets which are undervalued. Many are also low-g geared (a low ratio of short-term debt and debentures in their financial structure). As such they are a standing temptation in take-over terms. Too many conglomerate empires, built up on share exchanges and advances against acquired assets, could create an increase in company debt which is a hazard for the economy (21). Sudden financial failures on the part of one or two such enterprises could damage confidence and undermine all share values. But, if this is the problem then the *Monopolies and Mergers Act* is not the appropriate policy instrument. An Exchange and Securities Commission, to replace the Stock Exchange Council's voluntary efforts, may be the answer. In addition it may be thought necessary to amend the Companies Act to require: (i) that shareholders be given more information to enable

(20) See for example, J. Slater (of Slater Walker Securities) in an article in the *Financial Times* February 5th 1969.

(21) Whereas in 1964 60 per cent of the mergers of "large" companies was financed in cash rather than equity shares or loan stock, by 1968 this proportion had dwindled to 15 per cent. Also by this date the mergers of from £10m. to £50m. value were done with little cash consideration; while mergers of greater than £50m. entirely with "paper". Mergers of less than £10m. had, in aggregate, a 41 per cent cash consideration. (Annex to *Rank Organisation - De la Rue* report).

them to judge better the prospects of mergers: (ii) that conglomerates separately publish for a period the profitability and rates of return on capital of acquisitions in order that their management performance can be assessed in respect of any subsequent acquisitions; (iii) that all companies undertake compulsorily a revaluation of assets every five years for balance sheet purposes; and (iv) that all mergers be negotiated for, say, a 30 per cent cash consideration at least rather than for share exchanges alone (22).

ALEX HUNTER

Canberra

(22) The first two of these suggestions are included in the Monopolies Commission's "Suggested information for disclosure by companies". (Appendix 4 to Annex of *Rank Organisation - De la Rue* report).