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Conglomerates and Concentration

Gardiner C. Means

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VOLUME 25

CONGLOMERATES AND CONCENTRATION*

GARDINER C. MEANS**

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I. INTRODUCTION

In his column of June 2, 1966, in the Washington Post, Mr. Buchwald wrote the following:

Every time you pick up the newspaper you read about one company merging with another company. Of course, we have

^{*} This article was prepared as a background paper for a conference on "Conglomerates and Public Policy." Its purpose is to raise questions of policy and provide some basis for their discussion.

^{**} Economist, Consultant, and Author and Co-Author of numerous books; e.g., MODERN CORPORATION AND PRIVATE PROPERTY; MODERN ECONOMY IN ACTION; and STRUC-TURE OF THE AMERICAN ECONOMY.

laws to protect competition in the United States, but one cannot help thinking that, if the trend continues, the whole country will soon be merged into one large company.

It is 1978 and by this time every company west of the Mississippi will have merged into one giant corporation known as Samson Securities. Every company east of the Mississippi will have merged under an umbrella corporation known as the Delilah Company.

It is inevitable that one day the chairman of the board of Samson and the president of Delilah would meet and discuss merging their two companies.

"If we could get together," the president of Delilah said, "we would be able to finance your projects and you would be able to finance ours."

"Exactly what I was thinking," the chairman of Samson said.

"That's a great idea and it would certainly make everyone's life less complicated.

• • • •

"But if you merge," someone pointed out, "there will be only one company left in the United States."

"Exactly," said the president of Delilah. "Thank God for the free enterprise system."¹

This country is, of course, a long way from the final merger, but we are also considerably closer to that event, as compared with the simple small-enterprise economy of a hundred years ago. Needless to say, the conglomerates, including bank conglomerates and railroad conglomerates, are taking us headlong toward that end. In the four years preceding 1970, nearly seven percent of the assets of all mining and manufacturing corporations were merged into other corporations. At the merger rate which took place in the first half of 1969, it would take only a score of years to absorb most of the manufacturing assets into a couple of hundred huge companies. The railroads and utilities are even more concentrated than manufacturing and are not only merging further, but some railroads, through holding companies, are becoming conglomerates. In the banking industry, one-bank holding companies are being used to break down the line between banking and nonbanking activity which public policy had previously established. The long-run trend toward economic concentration has presented serious economic problems and this recent wave of conglomerate mergers has increased the importance of these problems.

This article will first examine the available statistics on concentration, and then consideration will be given to the problems of public policy which concentration engenders.

^{1.} Washington Post, June 2, 1966.

II. THE TREND TOWARD CONCENTRATION

The trend toward concentration will be considered first by going back to a time when there was little concentration, then the several merger movements will be discussed, and finally the statistics of concentration will be examined for the manufacturing industry alone and for the economy as a whole.

A. An Economy with Little Concentration

To find a period of slight concentration in the United States economy it is necessary to go back only a hundred years. Just before the Civil War, two-thirds of the labor force was engaged in agriculture. The family farm was the usual form of organization and flexible farm prices were determined by the interaction of a large number of buyers and sellers in the market. There were no telephone or electric power companies, and the railroads were just beginning to be consolidated. In 1853, the New York Central was formed by consolidating the ten short sections of railroad, mostly end to end, which spanned the 300-mile distance between Albany and Buffalo. At that time, according to Professor Ripley, one hundred miles of railroad was considered to be the maximum which could be operated efficiently.² Most manufacturing production took place in small local plants or in small shops. The clothing industry was just coming out of the home with the invention of the sewing machine, and the shoe industry was in the process of being brought into the factories. American ironmasters had only recently shifted from the old method of hammering out bar iron in a forge fired by charcoal to the newer method of rolling. The Bessemer steel furnace, invented in 1856, had not vet been put into practical operation, and the open-hearth furnace was still to be developed.

In that period, the United States economy was indeed an economy of small-scale enterprise. For practical purposes, there was little concentration. Even for theoretical purposes, such concentration as existed could be disregarded for most purposes of public policy. National economic policy could be decided on the basis of a body of economic theory which assumed that all production was carried on under conditions of classical competition; that is, competition between such a large number of buyers and sellers that no producer or buyer had significant pricing power and prices were *determined* by the law of supply and demand.

This unconcentrated economy, and the classical theory based upon it, dominated public policy through the 19th century and the first third of the 20th century. In fact, the Sherman Act was passed in 1890 with the aim of preserving this type of economy.

B. The Drive for Monopoly

After the Civil War, industry became increasingly important in the economy as a whole, and toward the end of the century there was a merger

^{2.} W. RIPLEY, RAILROADS 456 (1915).

movement aimed, often explicitly, at obtaining monopoly control over prices. This movement is reflected in Chart I^3 which shows the number of mergers year by year reported in the Commercial and Financial Chronicle from 1895 to 1914. As can be seen, there was a burst of mergers from 1898 to 1902. Some of the industries which were substantially monopolized are listed below with the proportion of the market held by the single largest producer indicated.⁴

	Proportion of industry by
	largest company (%)
Cigarettes	100
Cane Sugar Refining	100
Tin Cans	90
Petroleum Refining	85
Agricultural Implements	85
Copper	85
Explosives	80

This merger movement culminated in 1902 in the merger of mergers which produced the U.S. Steel Corporation with control over two-thirds of all steel ingot production and a higher degree of control over many steel products. A parallel wave of concentration took place among railroads, culminating in the acquisition of control of the Great Northern and the Northern Pacific by the Northern Securities Company in 1901. The public reaction to this merger movement was strong and the powers of the Sherman Act were brought to bear. First, the Northern Securities⁵ decision by the Supreme Court in 1904 outlawed the holding company as a device for achieving monopoly. Then other court decisions brought the break-up of monopolies in manufacturing, such as the Standard Oil Company and the American Tobacco Company. Still other merged enterprises failed to achieve or retain monopoly under the new attitudes of the public and the court decisions, and thus the rate of mergers dropped back to a low level as is indicated in Chart I.⁶ In this manner, the first great wave of mergers was not only halted but turned back so that big monopoly as such was largely eliminated and there was probably less concentration in manufacturing by the beginning of the First World War than there was in 1902.

C. The Drive for Bigness

A second wave of mergers occurred in the decade after the First World War, reaching its peak in 1929. In this period, the drive behind

^{3.} See Appendix, p. 36 infra.

^{4.} J. Fred Weston, Hearings on Economic Concentration Before the Subcomm. on Antitrust and Monopoly of the Senate Comm. on the Judiciary, 88th Cong., 2d Sess., pt. 1 at 140 (1964).

^{5.} Northern Securities v. United States, 193 U.S. 197 (1904).

^{6.} See Appendix, p. 36 injra.

the merger movement was clearly not a drive for monopoly but a drive for bigness. To what extent this was a drive for market power, as contrasted to an attempt to gain productive efficiency, has been hotly debated and is an unsettled issue. This issue has been confused by the frequent use of profit rates as a measure of productive efficiency even though profits could also be a measure of market power.

The merger movement in manufacturing and mining from 1919 to 1939 is shown in Chart II.⁷ The figures in this chart represent a counting of mergers more complete than that of Chart I so that the absolute number of mergers cannot be compared but the story is the same; a short period of very high merger rates followed by a period of low rates.

In this same period, an even more vigorous wave of mergers occurred among public utilities, as great numbers of independent local utilities were brought under a single control. This wave was not only brought to a halt by popular reaction but there was also some break-up under the Holding Company Act of 1935.

Mergers among railroads were largely prevented by the I.C.C., but stock acquisitions in the 1920's continued to bring many railroads closer together.

Altogether, the decade of the 1920's was one of mergers which contributed to concentration, while the post depression decade was the reverse. In the latter period, government stood ready to apply its antitrust powers against mergers and its other powers against holding companies. Mergers in the manufacturing and mining field from 1935 to 1939 averaged just over one hundred a year, as compared to an average of over 1000 a year from 1926 to 1929.

D. The Conglomerate Drive

The third major wave of mergers, which took the primary form of creating huge conglomerates, has only recently been brought to a halt by a decline in the stock market and a concomitant drop in the value of many conglomerates. Chart III⁸ shows, for each year since 1948, the number of mergers of manufacturing and mining firms in which the acquired firm had assets of \$10 million or more. From 1948 to 1952, the annual rate of big mergers was 7 a year. From 1953 through 1966, the annual rate was 70 a year. In the last three years, the annual rate of big mergers has been over 165 a year with \$30 billion of assets thereby acquired by other companies. This represents around 7 percent of the assets of all manufacturing and mining corporations and a much larger percentage of the assets of corporations not included in the 200 largest.

The current merger movement has also affected other fields. Dr. Mueller, Economist for the Federal Trade Commission, recently made the following statement to a Congressional Committee:

^{7.} See Appendix, p. 37 infra.

^{8.} See Appendix, p. 38 infra.

mergers in wholesale and retail trade, services and miscellaneous industries have risen even more rapidly than have mergers in manufacturing and mining. Moreover, in recent years, railroads not only have been merging with one another but increasingly have absorbed manufacturing and other concerns through newly created holding companies. Mergers also are occurring with increasing frequency in other areas of transportation as well as in the utility and broadcasting industries. Most recently onebank holding companies have been formed by many large banks for the purpose of expanding the scope of these institutions and, in some cases, absorbing business enterprises outside banking.⁹

This wave of mergers has tended to be increasingly a matter of conglomerate mergers. The FTC classes as conglomerate 80 percent of the substantial manufacturing and mining mergers of the last five years and 89 percent of those occurring last year.¹⁰ Of course, the acquisition of industrial companies by railroad and bank holding companies creates conglomerates. This is in sharp contrast to the merger wave at the turn of the century, when the focus was on horizontal mergers aimed at achieving monopoly, and also with the second wave which sought bigness and market control mostly through vertical and some horizontal mergers within the limits of the antitrust acts. Whether the antitrust acts place significant limits on conglomerate mergers remains to be seen.

E. The Underlying Trend toward Concentration in the Economy

It is clear that there has been an underlying trend toward making the United States economy more concentrated. The small enterprise economy of a hundred years ago has given place to the modern economy of big business. The questions are, how fast has this increase in concentration been taking place, and how far has it actually carried?

To answer these questions it is necessary to consider the various sources of concentration. Mergers have contributed a spectacular part to the increasing concentration. However, there have been other developments contributing to concentration. Perhaps, even more important than mergers is the shift from a predominantly agricultural to an industrial economy. In the earlier period, two-thirds of the gainfully employed persons were in agriculture. Today less than 5 percent of the gainfully employed are in an agricultural industry in which nearly two-thirds of farm marketings are still made by family farms.¹¹ Today, the major proportion of employment is in industry where large units prevail. This

^{9.} W. Mueller, Hearing on Economic Concentration Before the Subcomm. on Antitrust and Monopoly of the Senate Comm. on the Judiciary, 91st Cong., 1st Sess. (1969).

^{10.} Id. at 7a, fig. 2. "Substantial mergers" include all mergers in which the acquired corporation had assets of \$10 million or more.

^{11.} In 1964, 64 percent of the value of farm marketings were made by family farms, *i.e.*, farms employing no more than one hired worker (or the equivalent) per year, up from 63 percent in 1959.

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shift alone without any mergers would have greatly increased concentration for the economy as a whole.

Another source of concentration is the internal growth of single enterprises. For example, the assets of the American Telephone and Telegraph Company have increased 275 percent in the last 16 years, primarily from internal growth, and much faster than the assets of all nonfinancial corporations. The increase in concentration from this source is more difficult to measure because a company can choose between expansion by merger and expansion by internal growth. This complicates the determination of concentration since corporations classed as the largest in any year will depend on a combination of the two.

In measuring concentration, account must also be taken of the increased proportion of industry and trade which is carried on by corporations. A hundred years ago, there were relatively few industrial corporations. To illustrate, in Pittsburgh in 1860 there were 17 foundries, 21 rolling mills, 76 glass factories, and 47 other manufactories, but not a single one was incorporated. Only in the early New England cotton industry were corporate enterprises a significant factor. By 1900 only two-thirds of manufacturing was incorporated, while today over 99 percent is incorporated.¹² Trade and services were still largely unincorporated in 1900, while today two-thirds of retail sales are made by incorporated enterprise.¹³ Thus, as the proportion of *corporate* enterprise which is carried on by a few enterprises increases, the proportion of *all* enterprise carried on by the few corporations increases even faster.

F. Overall Concentration in Manufacturing

The most comprehensive data on concentration is in the field of manufacturing. Reasonably reliable data is available on the proportion of corporate assets controlled by the hundred largest manufacturing corporations in 1929 and at intervals from 1950 onward for both the 100 largest and the 200 largest. Chart IV^{14} shows the proportion of all manufacturing corporation assets and the corresponding proportion of net capital assets (land, buildings and equipment) controlled by the 100 largest manufacturing corporations in each year since 1947.

As can be seen from Chart IV,¹⁵ the hundred largest manufacturing corporations in 1929 controlled 40 percent of the total assets of all manufacturing corporations.¹⁶ By 1962, the hundred largest manufacturing companies controlled nearly half the assets of all manufacturing corpora-

^{12.} U.S. DEP'T OF COMMERCE, HISTORICAL STATISTICS OF THE UNITED STATES 413 (1960) (for 1900 measured by value of products in 1899).

^{13.} STATISTICAL ABSTRACTS FOR THE UNITED STATES (1969).

^{14.} See APPENDIX, p. 39 infra.

^{15.} Id.

^{16.} Hearings on Economic Concentration Before the Subcomm. on Antitrust and Monopoly of the Senate Comm. on the Judiciary, 88th Cong., 2d Sess., pt. 1, at 18 (1964) [hereinafter cited as Senate Hearings].

tions. In 1969, the preliminary estimates suggested that 100 manufacturing corporations controlled 52 percent of all manufacturing corporation assets.

More important than concentration of total assets is the concentration in net capital assets; the land, buildings, and equipment which provide the material basis for production and, along with business organization, give a corporation its market power. In 1929, the hundred largest manufacturing corporations controlled 44 percent of all manufacturing corporate assets, and by 1952 or 1953, the hundred largest corporations of that year controlled 50 percent of the net capital assets of all manufacturing corporations. Today the hundred largest corporations control approximately 62 percent of the net capital assets of all manufacturing corporations.¹⁷

The Nutter monograph is concerned with the relative importance of monopoly and concentration *in relation to the market*; rather than overall concentration. It attempts to measure market concentration around 1900 and again in 1937. It concludes that there was somewhat less *monopoly* in the latter year than at the turn of the century.

This conclusion depends in part on a peculiar definition of monopoly, which includes railroads as a monopolized industry in 1900 and as a competitive industry in 1937. A more practical definition which treated railroads as regulated monopolies in both periods would have reversed the finding and shown an increase in monopoly even under Nutter's definition of monopoly for other activities. The subjective character of Nutter's other classifications has also been brought out in Lebergott's criticisms. See Lebergott, Senate Hearings, supra note 16, at 343. See also G. Nutter, Senate Hearings, supra note 16, at 345.

Nutter's questionable finding has often been treated as a finding that overall concentration declined in this period. But there is nothing inconsistent between a decline in monopoly, which is concerned with concentration in the market, and an increase in overall concentration. If a steel company acquires a structural steel fabricating company, this may add to overall concentration, but it does not alter the degree of concentration in the production of steel. If an automobile company adds electric refrigerators and railway locomotives to its activity, market concentration may go down while overall concentration goes up. Whether overall concentration in manufacturing, or for the economy as a whole, occurred between 1900 and 1937 cannot be deduced from the Nutter analysis. The question of concentration in relation to the market will be examined in a later section when competition is being discussed.

The second monograph by Adelman, purports to show among other things, that there has been no tendency for concentration to increase from 1931 to 1947. But the analysis is so crude that the estimates have no significance for the following reasons.

First, the depression year, 1931, is used as the base of measurement, in spite of the fact that the assets of the 200 largest nonfinancial corporations had increased 3 percent from 1929 to 1931 while the assets of all other nonfinancial corporations had shrunk 24 percent in the two years of depression. Senate Hearings, supra note 16 at 311. Clearly a depression year is unsuitable as a base.

Second, Adelman uses unadjusted Treasury figures with no attempt to adjust or even discuss the important changes in the basis of competition, with no adjustment for the serious under-consolidation of subsidiaries which changed markedly over the period, with no adjustment or mention of the double counting of assets which arises from the holding by one corporation of the stocks of another which it does not control, and with no attempt to deal with net capital assets which involve no duplication and are more fundamental to the problem of overall concentration.

Third, Adelman disregarded completely the most reliable estimates of concentration available for a nondepression year, those for 1929, which were made directly from tax

^{17.} See G. NUTTER, EXTENT OF ENTERPRISE MONOPOLY IN THE UNITED STATES (1951); Adelman, The Measurement of Industrial Concentration, 33 Rev. of Econ. & STATISTICS 287 (1951).

Besides the foregoing, there are other means of measuring concentration. If the proportion of manufacturing corporation profits made by the hundred largest manufacturing corporations were used, the degree of concentration shown would be greater. The big corporations not only tend to use more capital per worker, but also tend to obtain a higher rate of return. If "value added" or "workers employed" were used to measure concentration, the degree of concentration would be substantially less. Figures for total assets and net capital assets have been given here because of the power that arises from concentrated assets.

The assets of the second hundred largest manufacturing corporations in the respective years have also been increasing more rapidly than the assets of all manufacturing corporations. In 1950, the second largest hundred controlled approximately 8.7 percent of the assets of all manufacturing corporations, and in 1962 this figure increased to 9.3 percent.¹⁸ Only crude estimates for 1969 are available but they suggest that the second hundred in that year controlled at least 10 percent. Adding these percentages to the more reliable figures for the largest hundred suggests the following conclusions: the largest 200 manufacturing corporations in 1950 controlled nearly 52 percent of all manufacturing corporation assets; the 200 largest in 1962 controlled 58 percent; and the 200 largest in 1969 controlled 61 percent. In terms of the more important figures of capital assets, (land, buildings, and equipment) the proportion controlled by the 200 largest manufacturing corporations in the respective years rose from around 57 percent in 1950 to around 66 percent in 1962, and eventually to nearly 70 percent at the present time.¹⁹

The rate of increasing concentration for manufacturing as a whole, including unincorporated manufacturing, is somewhat greater than these figures suggest. In 1950, over 5 percent of manufacturing assets were held by entities other than corporations, while today barely one percent of manufacturing assets are unincorporated. Thus, the proportion of *all* manufacturing assets controlled by the largest 200 corporations in the respective years has gone from just under 50 percent in 1950 to just over 60 percent in 1969, and net capital assets of all manufacturing enterprises

For a more detailed critique of Adelman's estimates see G. MEANS, THOUGHTS ON CONCENTRATION, PROCEEDINGS OF THE BUSINESS AND ECONOMIC SECTION OF THE AMERICAN STATISTICAL ASSOCIATION 123-26 (1962).

Professor Adelman presented similar figures with essentially the same flaws, covering the period from 1931 to 1960, to the Senate Committee on Antitrust and Monopoly. They show no attempt to meet the above criticisms. Senate Hearings, supra note 16, at 234-40.

18. Senate Hearings, supra note 16, at 121.

19. Estimates made by the author on the basis of reliable data given above for the largest 100 manufacturing corporations plus crude estimates for the second hundred largest form the basis for these figures.

returns of the larger corporations with reasonable complete consolidation of all legally controlled companies. See Senate Hearings, supra note 16, at 287.

Finally, Adelman's general findings are at direct variance with the findings of others, including the staff of the Federal Trade Commission, the staff of the Senate Antitrust Committee, and my own.

controlled by the largest 200 corporations have risen from 55 percent in 1950 to more than 70 percent in 1969.

A simple extrapolation of the increase in concentration of the last score of years to the year 2000 would give a figure of 92.5 percent as the proportion of net manufacturing capital assets controlled by 200 corporations. If the recent more rapid rate of concentration were to continue, this high degree of manufacturing concentration would come much sooner. Effective enforcement of the antitrust acts could prevent any final merger and could slow up the increasing concentration, but how effective it can be will depend to an important extent on the treatment of conglomerates.

G. Concentration for the Economy as a Whole

The most reliable figures for concentration in the economy as a whole are those for 1929. In that year, 200 corporations controlled 48 percent of the assets of all nonfinancial corporations, including not only manufacturing but also transportation, trade, and service corporations. These same 200 corporations also controlled 58 percent of the net capital assets of all nonfinancial corporations.²⁰

Since 1929, no adequate statistical study of concentration by all nonfinancial corporations has been made. We have seen the increase in manufacturing concentration. Big railroad mergers such as the Penn-Central and the Norfolk-Nickel Plate mergers have clearly increased railroad concentration, while air transportation is carried on in large part by huge air transport companies. The chain supermarket and other chainstores have increased in relative importance. But until a competent study of corporate concentration has been made, it is not possible to state with certainty how much the concentration for nonfinancial corporations as a whole has increased, although it is relatively certain that it has not decreased. It is concentration in the economy as a whole as well as concentration in manufacturing which pose the problems of public policy arising from concentration which will be discussed in the next part of this paper.

III. PROBLEMS OF PUBLIC POLICY CREATED BY CONCENTRATION

The shift of the U.S. economy from one predominantly characterized by small scale enterprise to one made up predominantly of big corporate enterprise has created problems of public policy with which the society is only beginning to grapple. In this article, some of the more important problems will be considered under three headings. First, consideration will be given to three related problems created by concentration which affect the economy as a whole—unemployment, inflation, and the balance of international payments. Second, attention will be given to the changed character of competition and the resulting effects both on the way resources are used and on the distribution of income. And, finally, attention

^{20.} G. MEANS, THE STRUCTURE OF THE AMERICAN ECONOMY 107 (1939).

will be given to the welfare of the people who live and work in an economy of big business enterprises and experience both its affluence and its effluence.

A. Employment, Inflation, and the Balance of Payments

The economists of the 19th century did a brilliant job of analyzing how a world economy made up of individual buyers and sellers and of small business enterprises could be expected to operate. They concluded that, in such an economy, the working of the market mechanism in which supply and demand were equated by price would automatically prevent excessive unemployment, would automatically prevent serious inflation in the absence of monetary manipulation, and, under the gold standard, would automatically maintain a reasonable balance in international payments. For such an economy, the appropriate policy of government was one of laissez-faire so far as employment, inflation, and the balance of payments were concerned. In these three fields, the function of government was met when each government assured sound stocks of money directly related to the monetary stock of gold in that country and maintained a free flow of gold with other countries.

The automatic mechanisms by which full employment would be maintained, inflation avoided, and international payments kept in balance all depended on a very high degree of price flexibility and the determination of price by supply and demand. It required a degree of competition among such a large number of buyers and sellers that no single buyer or seller had any power to choose to buy or sell currently at one price rather than another. The individual seller could either sell at the market, as shares are sold in today's stock market, or could hold off selling in the hope of a price rise. A seller could not have a *price* policy: he could not *set* a price for a type of product and expect a series of sales at that price over a period of time. The same applies to buyers.

Today, the great bulk of commodities are sold at prices which are set for periods of time and involve a series of transactions. Such prices, which have been called administered prices in contrast to the market prices of 19th century theory, reflect some degree of market power—the power to set one price rather than another.

A monopoly can, of course, set its price and is likely to adopt price administration as its procedure in marketing. Regulated monopoly usually operates with prices administered by the interaction of the seller and a government commission. The government itself operates with administered prices as in the case of postal rates which are set by Congress for periods of time. With monopoly, administered prices are to be expected.

However, price administration is also the normal marketing procedure where competition is active but sellers are few. The prices of standard steel products are set for periods of time and revised from time to time with set differentials for different special characteristics, and the bulk of steel transactions take place at these fixed prices. Although supply and demand influence steel prices, they do not determine them. The determination is a matter of the administrative decision of single companies in the light of supply and demand conditions, usually with the behavior or anticipated behavior of specific recognized competitors in mind.

This type of pricing is essential for modern, efficient industry, and with the increased concentration in the economy, it has become so much the normal pricing method that the great bulk of commodity and service transactions take place at administered prices. Concentration has also led to the administration of wage rates either by management, as was true of the heavy industries before 1933, or by negotiated agreements between management and organized labor. Thus, instead of economy with flexible prices set predominately in a free market, as 19th century theory assumed, we have an economy in which prices are administered and are inflexible, at least for short periods of time. In the next section, the effect of price administration on the use of resources and income distribution will be considered. Here, the immediate concern is the relation between price administration and employment, inflation, and the balance of payments. As will be seen, even a very moderate degree of market power, which allows price administration, if widespread, can prevent the operation of the three automatic mechanisms relied on in the policies inherited from the 19th century. In the following text, each of these automatic mechanisms will be outlined as they apply to an economy of market prices, then the distortion resulting from price administration will be indicated, and finally, the problem thereby created will be discussed.

B. The Classical Theory of Employment Adjustment and a Concentrated Economy

It was a conclusion of the 19th century theorists that the market mechanism would automatically tend to produce full employment, *i.e.*, that general overproduction or underemployment would automatically be corrected through price-level adjustment.²¹ The operation of this classical mechanism is quite simple. If there were a recession involving excessive unemployment, prices would fall because of the decline in demand for goods and wage rates would decline because of the competition of workers for jobs. With prices and wage rates falling together, the recession, however, would not be corrected. But the fall in the price-wage level would increase the real buying power of each unit of money. If the nominal stock

^{21.} Keynes indicates that the classical economists assumed full employment and that their theory "is best regarded as a theory of distribution in conditions of full employment." J. KEYNES, GENERAL THEORY OF EMPLOYMENT, INTEREST AND MONEY 16 (1936). See also Id. at 6. As a result he presents no argument to show that the classical mechanism could not be expected to work under the flexible market-price conditions they assumed or that the introduction of liquidity preference to the flexible market-price economy would inhibit the working of the classical corrective mechanism,

of money remained constant, its real buying power would increase, and soon the public would find itself with larger cash balances than they would choose to hold—in Ricardo's terms, money would become redundant. The public's effort to spend the extra money would create the extra demand necessary to absorb the involuntarily unemployed. Thus, in theory, any recession would be quickly and automatically corrected by a general adjustment in the price-wage level, provided the stock of money was not allowed to shrink as fast as the fall in price level. According to this theory, recovery from an initial recession would be "just around the corner."

It is difficult to see why this adjustment mechanism would not work, if prices and wage rates were perfectly flexible or even highly flexible. The price-wage level would constantly be fluctuating down or up to correct any tendency toward underemployment or overemployment, and the relatively quick correction would prevent any movement one way or the other from gaining such momentum that a *general* expectation of further fall (or rise) might affect the process. This cybernetic mechanism would operate to produce reasonable stability at full employment.

It is equally obvious that, if all prices and wage rates were administered and inflexible, this mechanism would not work. An initial shrinkage in aggregate demand would produce a decline in the employment of both men and machines and there would be no automatic correction.

In the early 1930's, when agricultural prices and wage rates filled the classical requirement for market prices, while most industrial prices other than raw materials were administered, the recession brought a continuing decline in agricultural prices and wages to farm labor but not a comparable decline in industrial prices and industrial wage rates. In agriculture, the initial shrinkage in aggregate demand followed the classical pattern of falling prices and no shrinkage in farm employment. In industry, on the other hand, the primary effect of the fall in demand was a fall in employment with the consequent further fall in aggregate demand. Under such conditions, with the nominal money stock constant, the only condition of short run equilibrium resulting from an initial recession would be one of low agricultural prices and low employment in industry. The 19th century theory of an automatic correction simply would not apply.

Today, there is general agreement among economists that there is no automatic correction for excessive unemployment. There is also general agreement that aggregate demand can be increased through government's monetary and fiscal policies. The Employment Act of 1946 placed on government the responsibility for maintaining the aggregate demand necessary for full employment, but there is still a conflict among economists as to the reasons for the failure of a laissez-faire policy and as to the role of money in altering aggregate demand. Does money only affect aggregate demand through interest rates as Keynes held, or does it also operate directly on demand as experience since World War II would seem to indicate? In either case, monetary and fiscal instruments for maintaining the desired level of aggregate demand have not yet been designed to play the new role which is now assigned to them. Thus, the first policy problem created by concentration has been recognized and the outlines of the new policy have been accepted. However, effective practice for maintaining the necessary aggregate demand remains a problem. What should be the relative role of monetary policy and of fiscal policy? What changes, if any, are needed in monetary and fiscal institutions in order to carry out these policies designed to maintain full employment?

C. Classical Inflation and a Concentrated Economy

According to 19th century theory, only one source of inflation was possible—that arising from too much money chasing too few goods; a type of inflation which is properly called demand inflation. If the initial condition of an economy were one of full employment and the money stock were increased in excess of that amount of its wealth the public would choose to hold in the form of money at the initial price level; money would become redundant and aggregate demand would increase, which would bring about a rise in prices and wage rates. This type of inflation could be expected to continue as long as the stock of money continued to be greater than the public chose to hold. It could be converted into run-away inflation if the public as a whole came to expect rising prices and therefore chose to reduce still further its money holdings. In the absence of run-away inflation, the inflation arising from an initial excess in the stock of money would automatically be corrected by the reduced real value of each unit of money as the price level rose. Thus, a small rise in the money stock in excess of the money the public would choose to hold could be expected to lead to only a moderate price rise with no further repercussion. Also, such an inflationary rise in prices could not, in theory, occur except under conditions of full employment.

In a concentrated economy with the bulk of prices and wage rates administered, a quite different kind of inflation is possible and it can arise even when employment is considerably below the level considered to be full employment. This type of inflation results from a somewhat arbitrary exercise of market power. In an industry where competitors are few, the exact level of prices is by no means determinate, even though firms are in active competition with each other. There is usually some pricing discretion on the part of a price leader. Even with no change in demand or costs. an enterprise may seek to widen its profit margin by a small price increase and be followed by others in the industry. This type of price increase could occur in many industries, and if sufficiently general, could lead to both a rise in the general level of prices and in unemployment. Meanwhile, the rise in price level would provide labor with a basis for a legitimate demand for higher wage rates, the granting of which would in turn reduce profit margins. The result of the arbitrary price increases could thus be to increase unemployment without changing the level of profit margins. Then, if government brings about an increase in aggregate demand in order to absorb the new unemployment, conditions would be established for another arbitrary rise in prices and the process could be repeated.

This type of "administrative inflation" could also be created by labor pressure to force wage rates up faster than the increases in national productivity. An excessive rise in wage rates would provide a legitimate basis for price increases. Because of the increase in costs, the rise in prices could be used to justify further wage increases.

It is clear that such an administrative inflation can occur even though there is extensive unemployment. Thus, in the period from 1953 to 1959, the wholesale price index rose 8.5 percent, even though unemployment throughout the period averaged 4.8 percent of the civilian labor force. During this period, an index dominated by flexible market prices showed no important change, being lower in 1959 than in 1953.²² The rise in the wholesale price index in this period was almost entirely in the more concentrated industries. It was triggered by rising steel prices and appears to have resulted primarily from an effort to widen steel profit margins, which were already ample, and only in a minor degree from a legitimate reaction to increasing costs.²³ This same phenomenon has been occurring in 1970 with recession and inflation at the same time: a development which simply could not occur under conditions of classical competition.

There is considerable evidence that as full employment is approached, the likelihood of administrative inflation, the arbitrary increasing of prices or wage rates or both, also increases. Thus, if just that degree of aggregate demand needed to support full employment were maintained, an initial situation of stability could be expected to shift into administrative inflation. Whether triggered by management or labor, the price rise with no further increase in aggregate demand would generate unemployment. Thus, the problem of preventing inflation not only requires techniques and institutions for preventing administrative inflation. Both the problems of maintaining full employment and the problems of preventing inflation are complicated, and in turn, they complicate the problem of maintaining a balance in international payments.

D. The Classical Theory of Trade Adjustment and a Concentrated Economy

According to classical theory, payments between countries which were on the gold standard would automatically be maintained in reasonable balance. The mechanism maintaining balance was beautifully simple in principle, and under the market-price conditions assumed in classical

^{22.} Source for wholesale price index and unemployment is ECONOMIC REPORT OF THE PRESIDENT 252, 282 (1969); source for flexible market prices is G. MEANS, PRICING POWER AND THE PUBLIC INTEREST 63 (1962) [hereinafter cited as PRICING].

^{23.} See PRICING, supra note 22, at 112-50.

theory, there is no reason to think that it would not work as theory indicated. In fact, it did work throughout much of the 19th century.

Under the gold standard, if one country had an unfavorable balance with the rest of the gold standard countries because it was buying more from abroad than it was selling, it would pay the difference in gold. Since under the gold standard, the quantity of money in a country was directly related to the country's monetary gold holdings, the money stock of the gold-losing country would contract, thereby reducing aggregate demand. With all prices and wage rates assumed to be highly flexible market prices, the country's price-wage level would fall, thus encouraging other goldstandard countries to buy from it. Simultaneously, the money stock in the gold-receiving countries would increase, thereby expanding aggregate demand. Since prices and wage rates were assumed to be highly flexible, the price-wage levels would rise, thereby discouraging the gold-losing country from buying from them. Thus, the gold-losing country would buy less from abroad and sell more abroad while the gold-receiving country would do the opposite. The gold flow and price-wage changes resulting from these purchases could be expected to continue until the unbalance in payments disappeared.

Of course, such an automatic mechanism could not be expected to operate in a concentrated economy. If a concentrated country had its money stock directly related to its monetary gold and an adverse balance in payments arose, the outflow of gold and the contraction in its stock of money would reduce aggregate demand as classical theory prescribed. But, in the presence of inflexible administered prices and wage rates, the fall in demand would create unemployment. Even though some market prices fell, the incomes in the country would shrink until it was unable to buy as much abroad. Simultaneously, the gold-receiving countries, if concentrated, would experience a boom and with increased incomes would be buying more from the depressed country. Thus, the unbalance in payments would automatically be corrected as the gold-losing country bought less and sold more abroad. However, the automatic adjustment would have been brought about by a *depression* in one country and a boom in others, instead of through changes in relative price-wage levels.

In practice, the gold standard was abandoned in country after country during the first part of the 20th century, presumably because it was working progressively worse as the industrial countries became more concentrated and prices and wage rates became less flexible. In place of the gold standard, under which the money supply of a country expands or contracts in line with the country's monetary supply of gold, the central banks focused monetary policy on the problems of maintaining internal employment and price-wage stability. Inbalances in external payments have thus become a chronic problem, sometimes for one group of countries, sometimes for another. Concentration has made the old gold standard unacceptable. Various measures have been adopted for postponing the need for correcting an unbalance in payments in the hope that by good fortune it will disappear. Nevertheless, there is no automatic corrective. Can techniques be found for correcting unbalances in international payments without subjecting particular countries to depression or boom and without the strains of drastic devaluation and revaluations?

Here we have three major and interrelated sets of problems arising from the effects of concentration which involve the economy as a whole. Until these are satisfactorily solved, the more specific problems of competition, use of resources, and the determinants of income, though important, will be more difficult to solve in a satisfactory fashion.

E. Competition, the Use of Resources, and Income Distribution

At the time the Sherman Act was passed, two basic market concepts dominated economic thinking, "competition" and "monopoly." The act was aimed to preserve the first and to prevent or eliminate the second. So long as there was competition, it was assumed that prices were determined by supply and demand or what can be called "classical competition." The act was expected not only to eliminate monopoly outside of regulated industries, but also to maintain or to reestablish classical competition.

It was not until three studies appeared in 1933-35, one concerned with imperfect competition, one with monopolistic competition, and one with administered prices, that nonclassical competition entered into general economic theory. The first two of these studies pointed to the theoretical possibility that active competition between a few companies could be expected to produce pricing results quite different from those to be expected from classical competition. The third study indicated the prevalence in the American economy of prices which are clearly *competitive* but which do not behave at all as prices could be expected to behave under conditions of classical competition. As already indicated, most of American industry operates with administered prices. This means that, where competitive, they operate under a condition of the newly recognized type of competition, which will hereafter be referred to as "administrative competition."²⁴

When one looks at the successes and failures of the antitrust legislation, keeping in mind these three concepts—classical competition, administrative competition, and monopoly—two things stand out.

First, operations under this legislation have been outstandingly successful in preventing industrial monopoly. Today, there is no major unregulated industry in which there is only one significant company. In practically every industry, there are three or four or more companies actively competing with each other. There may be some instances of price

^{24.} The designations, "imperfect competition" and "monopolistic competition" are rejected here, partly because classical competition was probably never "perfect" as that has been defined nor does the newly recognized type of competition involve monopoly, and partly because the theoretical analysis of business behavior presented under these heads does not appear to apply to most actual business behavior.

collusion, but the legislation provides the basis for dealing with them as was done for example in the case of price-fixing in electrical equipment. Preventing monopoly is a never-ending task for the agencies enforcing the antitrust laws, but action under the antitrust laws has eliminated the industrial monopolies which developed at the turn of the century and has prevented their recurrence on any major scale.

On the other hand, the antitrust laws have been a complete failure in preserving classical competition. The Sherman Act seems to have been written in the belief that, if monopoly were prevented, competition in the classical sense would be maintained. This confusion of competition with classical competition means that no attention was given to administrative competition, therefore, the tradition was established that somehow the prevention of monopoly would be sufficient to maintain the full benefits of classical competition.

The difference in the results to be expected from the two different types of competition are complex and not widely understood. To bring out the most important difference, it is necessary to go back to first principles and simplified cases. Here, the results to be expected from classical competition will be outlined first, and then those to be expected from administrative competition will be considered.

F. The Results to be Expected from Classical Competition

The theory of classical competition is well-established, and there is much evidence that where the conditions for this type of competition exist, the actual results tend to confirm the theory. The best examples of classical competition are in agriculture. The individual wheat farmer is competing with such a large number of other wheat farmers that his own decision to plant more or fewer acres of wheat or to produce one kind of wheat rather than another will not significantly alter the prices of the different grades of wheat. He has no market power. He is a price accepter. He can make his production and marketing decisions on the basis on what he expects prices will be without taking into account the effect of his own decisions on prices. This is the key difference between classical competition and administrative competition. In the latter, the producer does have to take into account the effect of his own production policy on price, or, more often, he has his own price policy.

We could examine the results of this type of competition in terms of wheat or cotton or tobacco production. However, it is difficult to imagine a comparative condition in which all, or practically all, wheat is produced by one or the other of "the big four" or "the big six" wheat producers. For this reason, a simplified example will be taken from the textile industry where it is possible to imagine a condition of classical competition and to compare it with a possible condition of administrative competition.

For the analysis of classical competition, assume that there are 400 cotton spinning mills: each is able to make every standard type and count

of cotton yarn; each is separately owned and operated; each buys its cotton in the competitive cotton market; each sells its output in a cotton yarn market; and each draws its labor from an area without union organization but in which wage rates are fairly uniform for all employers. We can assume that some of the mills are relatively new, others are old, some are efficiently run, others are poorly run, and that production costs will be different for different mills. Also, assume that at the outset, some mills are shut down and others are operating.

For the management of a closed mill, a decision must be made whether to open. The central calculus could be expected to turn on the current and expected price of yarns, the price of cotton, the availability and cost of labor, and the cost of other production factors making up the operating cost of the mill. If there were a sufficient margin between the out-of-pocket costs of operating the mill and the in-pocket revenue to be expected, the mill would presumably be opened and add its output to the total supply of yarn available in the market.

There are two characteristics of this calculus which should be noticed. First, it does not take into account the past capital cost of the mill itself. The owner already has the mill. Unless he sells it or operates it, he will presumably derive no revenue from it. If he can operate it and derive *some* revenue in excess of his out-of-pocket costs, he would be better off than if he kept it closed. Thus, the decision to operate or not to operate an *existing* mill would turn primarily on future costs and rest not at all on what was paid in the past for the mill itself. In the calculus to operate or not, the capital cost of the existing mill would be "water over the dam."

The second characteristic of this calculus is that the decision would turn only on whether to keep the mill closed or operate it *at capacity*. There would be no question of operating part-time or at a low rate in order not to flood the market or because of insufficient orders. Under the condition of classical competition, the owner could sell all the yarn he could make within the capacity of his mill without significantly affecting prices. The exact capacity of his mill would, of course, vary with the type of yarn he chose to make and on relative prices. But once the decision to open was made, there would be no holding back production because of the effect such holding back might have on price.

In considering whether to close an operating mill, the same type of calculus would apply. Were out-of-pocket costs being covered by revenue when operating at capacity? If they were, operating at capacity would presumably be continued.

Under these conditions, and with this type of calculus, one could expect that the more efficient mills would be open with each operating at capacity and the less efficient would be closed. The supply of yarn flowing into the market would meet the market demand and yarn prices would adjust to just clear the market. If demand increased, prices would rise relative to costs and more mills would have an inducement to operate. A fall in demand would reduce prices, providing some mills an inducement to close. Thus, so long as we consider only the 400 mills, the supply would vary with price as more or fewer mills were operated, each at capacity, and demand and supply would be kept in line by changes in prices.

The cost of capital would enter into the market process primarily through the decisions to build new mills. It is obvious that simply a margin of revenue over out-of-pocket costs would not provide an inducement to build new mills. A potential new producer would have to have a reasonable prospect not only of recovering his capital (reflected in depreciation charges), but also of obtaining a competitive return or better on the capital he invests. If the margin between revenue and out-of-pocket costs is expected over a reasonable period to be large enough to cover both expected depreciation and at least a competitive return on capital, new mills will be built and operated at capacity.

In oversimplified form, the above paragraphs outline the essence of classical competition. With a slowly growing industry or a stable industry with slowly improving technology, prices in any short period would be dominated by the relation between demand and the out-of-pocket costs of the least efficient mill which needed to be operated at capacity in order to supply the demand at the market price. But over a longer period in which new mills could be built, prices would be dominated by demand, the out-of-pocket costs plus depreciation, and a competitive rate of return on capital for the capacity operation of the most efficient mill which could be built.

In a declining industry where the existing mills could more than supply the demand, out-of-pocket costs of the least efficient mill needed to fill demand would dominate prices. And in a rapidly growing industry, appreciably more than a competitive rate of return on capital could be expected to develop and continue for a time as new mills were being built at an insufficient rate. But in general, prices in such a classically competitive industry could be expected to gravitate around the total cost of production at capacity of the most technically efficient mill which could be built, including total production costs, depreciation, and a competitive rate of return on capital.

If there were no economics of size and if each industry were operating under conditions of classical competition, classical theory would dictate that the resources of a society could be most effectively used in meeting the individual wants of the society. Prices would be in line with economic costs, individual producers would be under constant inducement to be efficient, natural and human resources would be directed into different uses in the fashion which would best serve the society, and capital would be directed into different industries until each industry tended to yield a competitive rate of return. Each individual would receive income in proportion to his contribution of labor and capital.

These classical conclusions as to the results of classical competition

have been successfully challenged on at least two major grounds: first, that there are important economic costs which are not reflected in business costs, such as air and water pollution; and second, that the income distribution resulting from classical competition might fall short of socially acceptable goals. These are problems which will be taken up in the next section of this article. For the remainder of this section, the essentials of what can be expected if classical competition prevailed throughout the economy will not be questioned. What will be explored is the difference between what can be expected from a classically competitive industry as opposed to one operating under conditions of administrative competition.

G. The Results to be Expected from Administrative Competition

In order to explore the results to be expected from administrative competition, let us assume that there has been a big merger movement and the 400 independent cotton spinning mills have been absorbed into four big cotton yarn companies, each owning 100 separate mills. We can name these four companies the American Spinning Company, the National Spinning Company, the U.S. Spinning Company, and the Consolidated Spinning Company. Competition among them will appear as follows: First, collusion between them on prices and rates of production can be ruled out. Such collusion might occur, but it would be illegal under the antitrust laws, and the problem would be more vigorous prosecution under the law. How could law-abiding managements be expected to act with only four competing spinning companies?

The theories of administrative competition are not as well-developed or tested as those of classical competition. The pioneer theories presented by Robinson and Chamberlin stimulated theoretical discussion and clearly established the theoretical basis for a kind of competition lying between classical competition and monopoly. However, these theories of business behavior have failed in important respects to conform to actual business practice. The discrepancies are reflected in the inflexibility in administered prices, in administrative inflation, and in the use of target pricing; none of which are deduceable from these pioneer theories of nonclassical competition.

In considering the competitive behavior to be expected from the four spinning companies, it will be convenient to apply certain elements of these pioneer theories and then show specific modifications.

The pioneer theories suggest that if there were only four spinning companies, each owning one hundred mills, the yarn prices arrived at would be very close to monopoly prices, even if there were no collusion or agreement between the companies. Each company could be expected to survey demand and their own costs and arrive at a base price (with differentials for each type of yarn) which would be the most profitable price, if it were able to retain its proportionate share in the total market. If, by chance, all four arrived separately at the same base price, as the most desirable price, this price would presumably be announced by one and adopted by the others. In that case, it might well be the base price that a monopoly owning all 400 mills would adopt, which presumably would be a "monopoly" price. But the more likely development would be one in which the four companies differed somewhat as to the most desirable price. Then, the more likely effect would be for the companies with the lowest "most desirable price" to set the price for all, either initially or later by undercutting a higher price. This also would be substantially above a classically competitive price for mills having the same costs. although not quite as high as those set by a *monopolist* with the same mills and costs. It was recognized that sometimes price wars might break out and rage for a period. Also, the fear of starting a price war could inhibit price changes and thus make for inflexibility in prices. But the selfinterest of the four firms in the most profitable price was presumed to be so great that the normal price to be expected would be close to a monopoly price.

This pioneer theory proved to be faulty in at least four important respects; the effect of uncertainty on pricing; the time span involved in pricing; the effect of potential entrants; and the effect of public and government attitudes. When modified in these respects, the theory of administered competition takes on a substantially different and more realistic cast but points to fundamentally different results from those to be expected from classical competition.

Uncertainty as to the most profitable price makes for inflexibility and arbitrariness in administrative pricing. In classical monopoly theory upon which the pioneer theories of administrative competition are based, it is assumed that the single seller can estimate the demand for his product at different prices with a good deal of precision and can also estimate his costs for different amounts of output. With this information, arrival at the most profitable price is a matter of simple arithmetic. On this basis, it would be expected that as demand or costs change, that most profitable price would usually change. It was assumed that the monopolist would adjust his price accordingly. As a result, monopoly prices would tend to be almost as flexible in the short run as those made under conditions of classical competition. The essential difference would be greater profit, not inflexibility. In other words, flexibility was implicit in the pioneer theories of administrative competition.

Yet, in practice, the monopolist cannot usually estimate the demand for his product with precision, and there is likely to be a range of prices which may be almost equally profitable. Thus, there is a zone in which the monopolist is relatively indifferent to the exact price. Uncertainty as to the most profitable price plus the existence of this zone of relative indifference means that the initial price set by a monopolist is likely to be somewhat arbitrary. Once set, however, considerable changes in demand or costs can take place without inducing a change in price. Furthermore, a moderate and arbitrary change in price can be made in the absence of any change in demand or costs. Instead of a monopoly price being determinate as a result of precise profit calculus, there is likely to be a considerable degree of arbitrariness in a monopoly price. The monopolist, in pricing, usually operates within an area of considerable discretion in which precise market considerations do not determine the price which he sets.

This uncertainty can have the same effect in creating an area of pricing discretion where competition is among a few producers. Assume for example that in the textile example of four spinning companies given earlier, that the U.S. Spinning Company is the recognized price leader. Its management can be expected to go through a pricing calculus similar to that of a monopolist and arrive at a relatively broad zone within which its most profitable price is likely to lie. It will then have to consider what price each of the other three companies will accept. It will then decide upon and announce a price. If its analysis has been correct, each of the other companies will find the price lying within or below its zone of relative indifference and will accept it as its own. Occasionally, the price leader guesses incorrectly and one of the other companies comes out with a lower price which may be accepted by the other companies.

The large degree of pricing discretion also means that once a price has been adopted, moderate changes in demand and costs will not provide an inducement to price change. This, when combined with other advantages of a fixed price, goes far to explain the relative inflexibility of administered prices which the pioneer theories would not lead one to expect.

The second modification of the pioneer theories has to do with the time span which must be taken into account when pricing. When there are only a few big competitors, the focus of pricing is not to make the maximum profit in the current market. Rather, the pricing policy is focused on long-run profit. The possibility of greater profit in the immediate future is sacrificed for greater profit over a longer period. Thus, a big surge of demand for a particular product, which would lead to a sharp rise in a classically competitive price, might be met by a forced-draft operation with overtime production to supply the extra demand and no increase or only a moderate increase in price. Similarly, a drop in demand would be met primarily by a cut in production and employment rather than in price.

The emphasis on long-run rather than short-run profits contributes to the inflexibility of administered prices, but its more important effect results from two long-run considerations which are brought into the pricing calculus. The first is the danger of new entrants into the industry. The second is the public reaction to excessive profits. Both of these can be expected to result in prices lower than those usually expected from short-run profit maximizing.

If we start with only four spinning companies, they share the whole

market. Nevertheless, each must fear that other companies will build spinning mills and take away some of the market. The price leader in setting price can be expected to take into account the fact that too high a level of profits on the part of four companies will soon bring new entrants into the industry. If this happens, future profits could be severely curtailed. Over the years, profits of each of the four companies could be expected to be greater if prices were set to keep current profits low enough so that new entrants would be discouraged.

If it were perfectly easy to enter the industry, prices would have to be set in such a manner that there would be little more than a competitive rate of return on capital. Thus, in the spinning mill example, if the yarns from the four companies were essentially interchangeable, entry would presumably be easy. All that would be necessary would be to call up Charles T. Main & Co. or one of the other textile engineering firms and arrange for the construction of a new spinning mill. This danger would tend to make the prices of cotton yarn set by the industry so close to cost that the return on capital for the four companies would be close to the competitive rate. With the same number of mills and the same costs, the prices set by the four companies could be expected to vary less than with the 400 separate companies but their level of prices could be expected to be about the same as the longer period average of the classically competitive prices.

Under administrative competition, the danger of new entrants becomes the chief instrument through which prices are kept in reasonable relation to costs. With impossible entry, administered prices could be expected to be close to monopoly prices. With perfectly easy entry, prices would tend to be administered and inflexible but could be expected to bear much the same average relation to costs as could be expected under classical competition. Between these extremes lies a whole range of situations in which entry is more or less easy, and the pricing results lie between the longer run results of classical competition and those to be expected from monopoly.

The difficulty of entry into an industry is partly a matter of technology. It is difficult to imagine efficient production and classical competition in the production of pig iron. The Chinese drive for backyard blast furnaces might have created enough separate enterprises to allow classical competition but not efficiency. Only a relatively few blast furnace plants are required to supply this country's pig iron requirements, and, even if each plant were independently owned, the small number would not insure classical competition.

A second impediment to entry into an industry can be created by vertical integration. As long as the four spinning companies confined themselves to spinning, entry could be easy. Yet, if the merger movement had combined all cotton spinning, weaving, and finishing into four integrated companies, it would be more difficult for a new company to break into the finished cotton cloth market. To create a new integrated company would require more capital, a spinning mill would have difficulty finding a market for yarn, and a weaving mill would have difficulty obtaining yarn. If only four companies divided up the market for *all* textile cloth products, a break-in would be even more difficult.

A third impediment to entry can be created through product differentiation, advertising, and organization of the channels of trade. Four integrated textile companies might, through advertising, so condition buyers that only expensive advertising could allow a new company to break into the market. Apparent differences in the details of the product, as in the case of typewriters and automobiles, can make advertising and promotion more effective. And, where exclusive dealers are used, the cost and time required to build a new organization makes entry more difficult.

Whatever the degree of ease or difficulty in entering an administratively competitive industry, the important and recognized fact is that under conditions of administrative competition, the threat of new entry is the major and probably the most important influence tending to limit a serious discrepancy between actual profit rates and the competitive cost of capital. Anything which makes entry more easy can be expected to result in prices closer to costs plus a competitive rate of return on capital. Conversely, anything which reduces the likelihood that new entries will be stimulated by the making of more than a competitive rate of profit can be expected to result in higher profit rates.

Whether and to what extent pricing administration is influenced by public and government attitudes is a matter for debate. The leading companies in highly concentrated industries are, to some degree, vulnerable to public opinion. Promotion to obtain a favorable public image may not be enough if pricing policy is antipublic. When pricing power is great, actual pricing policy may be somewhat tempered, bringing prices somewhat closer to those yielding only a competitive return on capital.

The rigors of pricing under administrative competition have led some progressive companies to adopt a relatively new technique in pricing which has come to be known as "target pricing." It involves a procedure which lies quite outside classical theory and outside the pioneer theories of administrative competition. Instead of starting with estimates of costs and demand, it starts with two basic estimates. The first is an estimate of how high a rate of return on capital can be achieved without drawing new entrants into the industry or stimulating adverse government reaction. This would be the target rate. The second is an estimate of the average rate of operating which reasonably can be expected over a period of years in light of the ups and downs of demand. This would then be adopted as the rate of operation at which the target rate of return should be earned. Prices would then be set so that *if* operations were at the average rate, say 85 percent of capacity, the prices would just yield the target rate on the capital invested. These prices would mean that if demand at the set prices did not reach the level necessary to operate at 85 percent of capacity, the earning rate on capital would fall below the target rate. If demand were higher, earnings would exceed the target rate. But over a period of years, the target rate would be achieved.

The target rates employed in the period 1947 to 1955 are given below for the price leader in ten major concentrated industries along with actual returns on investment:²⁵

	Target	Actual Rate of Return After Taxes 1947-1955	
	Rate of		
	Return		
	After Taxes	Average	Range
	(%)	(%)	(%)
General Motors	20	26.0	19.9-37.0
DuPont	20	25.9	19.6-34.1
General Electric	20	21.4	18.4-26.6
Union Carbide	18	19.0	13.5-24.3
Standard Oil of N.J.	—	16.0	12.0-18.9
Johns-Manville	15	14.9	10.7-19.6
Alcoa	10	13.8	7.8-18.7
International Harvester	10	8.9	4.9-11.9
United States Steel	8	10.3	7.6-14.8

Target pricing makes the prices involved relatively inflexible to changes in demand but sensitive to changes in costs. Also, the formula for traget pricing is more of a company guideline than a rigidly adhered to price determinant. An unexpectedly low demand can lead to pricing below the target price, while expectation of inflation can lead to prices higher than current cost would prescribe.

H. Administrative Competition and Public Policy

Whether or not the device of target pricing is employed, the results to be expected from administrative competition are significantly different from those to be expected from classical competition, and serious problems of public policy arise.

One such problem concerns those situations in which competition is among a few big producers and technology makes entry difficult. Both theory and observation indicate that in such a situation, a drive to maximize profits is likely to result in rates of return on capital well above the competitive rates for capital. Profits would then be excessive; resources, including capital, would not be used as extensively in the industry as would be economical and income distribution would be distorted. What public policy should be adopted in this case?

A somewhat different problem arises when entry is presently difficult but could be made easier. It could be expected that with difficult entry,

^{25.} PRICING, supra note 22, at 240.

the industry, in the interest of profit, would not push production to the point required to make effective use of resources. But easier entry is technically possible and could be expected to correct this to a greater or lesser extent. What public policy should be adopted in this case?

I. Mergers and Concentration

Of even greater importance for future concentration is the set of problems concerning mergers. While the Sherman Act focused on preventing monopoly, the Clayton Act, as amended in 1950, outlaws mergers which tend toward monopoly or to substantially lessen competition. Thus, the amended Clayton Act deals with administrative competition, even though no monopoly is in prospect. Here, the problem of mergers which substantially lessen competition can best be discussed separately for each of the three merger types; horizontal, vertical, and conglomerate.

1. HORIZONTAL MERGERS

A horizontal merger which had the effect of eliminating a competitor would clearly be against public policy if there were only two competitors to start with. The real problem presented by horizontal mergers occurs when they will not result in a single seller. What constitutes a substantial reduction in competition? If one wheat farmer buys out another and operates both farms as one, there is, in some sense, a reduction in competition, but it is certainly not "substantial" as it affects the price of wheat. However, if there are only five producers in an industry, does a merger of two of them substantially reduce competition? If there are twenty, would a merger of two represent a substantial reduction in competition? Furthermore, when competition is administrative, under what conditions would mergers not involve a substantial reduction? These are the policy questions with respect to horizontal mergers.

2. VERTICAL MERGERS

Vertical mergers involving administrative competition raise quite a different kind of problem. Ease of entry becomes an important objective of public policy, and any merger which reduces potential entrants becomes a matter of public concern. A vertical merger in which a company acquires a company in the same stream of production, using its product or supplying its raw material, can reduce the company's danger from potential entry. It has already been indicated that entry into an integrated industry can be more difficult than entry into the same industry without integration. The integrating effect of a vertical merger on ease of entry is so important that it deserves to be spelled out in more detail.

The effect of vertical integration on ease of entry can readily be seen in the textile example. Assume an initial condition of administrative competition between four independent spinning companies doing all the cotton spinning, and assume all cotton weaving is done by four independent weaving companies. If yarn prices are kept too high, *i.e.*, if the profits of the yarn companies are substantially above a competitive return on capital, one of the four weaving companies, seeking lower yarn prices, can be expected to threaten to set up its own spinning mills. This threat could serve to keep yarn prices in fairly reasonable relation to costs, even though none of the weaving companies actually built spinning mills. Also, the threat would presumably be much more effective than the possibility of an outside company coming into the spinning business. The latter would also have to "break into the market" for yarns, while the weaving company would have no such problem.

Similarly, if the prices arrived at for cotton cloth by the interaction of the four weaving companies resulted in excessive rates of return on capital, it would presumably be much easier for one of the four spinning companies to build weaving plants than it would be for an outsider to do so.

Furthermore, it is reasonable to suppose that if there were four integrated companies, each starting with raw cotton and ending with finished cotton cloth, it would be much more difficult for an outsider to enter the industry than if there were four spinning companies, four weaving companies, and four finishing companies.

Thus, under administrative competition, vertical integration can substantially reduce the threat of entry and allow an increase in the margin between prices and costs. As a result, one can be reasonably sure that, if the price leader among the four independent spinning mills adopted the target pricing procedure, it would adopt a lower rate of return as its target in pricing than would the price leader among the four integrated companies.

Of course, there are other considerations involved in dealing with vertical mergers, such as the financial power of size and the withdrawal of potential markets from other producers. But the competitive pressure of potential entrants is so important for administrative competition that it presents a major problem of public policy where vertical mergers are concerned. In the presence of administrative competition, vertical mergers can reduce the likelihood that prices will be kept reasonably in line with costs. Thus, they operate to reduce competition. The main problem is to draw the line between cases of vertical integration which substantially lessen competition and those which do not.

3. CONGLOMERATE MERGERS

In 1927, duPont acquired a substantial block of U.S. Steel Corporation stock and became one of its largest stockholders. It already held nearly 23 percent of the stock of General Motors which gave it working control of the latter. The antitrust agencies were critical of this acquisition and in 1928 duPont informed the government that it had disposed of its steel stock. Subsequently, the courts forced it to dispose of its holdings in General Motors. If the three companies, leaders in chemicals, automobiles and steel, had come under common legal control the result would have been a conglomerate. The latter could be defined as a combination of companies whose primary activities make the combination neither a horizontal nor a vertical combination. This does not mean that there may not be some measure of horizontal or vertical relation between the combining companies but only that this relation is not the dominant relation. Whereas a cotton yarn mill and a weaving mill are obviously in a single line of production, a steel company, such as U.S. Steel, and an auto company only partially overlap. Much of the steel goes to other industries and much of the raw material or parts for autos come from other than steel companies. Practically all large conglomerates involve some degree of overlap, either with some competition between the separate companies or with some buying and selling between them. To this extent, the principles of horizontal or vertical merging apply. The major policy problems are as follows: whether the merging will substantially reduce competition between constituent units and whether it makes entry into the industries of the constituents substantially more difficult?

A conglomerate can and usually does involve other substantial problems affecting competition. If the conglomerate only acquired enterprises which were engaged in classically competitive industries, it is difficult to see what problems of public policy would arise. For example, if the United Farm Corporation acquired a wheat farm in the south, a corn-hog farm in Iowa, a tobacco farm in Virginia and a cattle farm in Texas, classical competition in the pricing of the various products could be expected to continue. But the usual conglomerate acquisition is operating not only under conditions of administrative competition but also under conditions of difficult entry. The conglomerate promoters will seldom see potential extra profit in acquiring a company operating in an industry in which entry is quite easy. Such companies do not fit into the conglomerate syndrome. Thus, the main problems arising from conglomerates concern a combination of administrative competition and difficult entry.

The wave of conglomerate mergers is relatively new, and neither the actual behavior of conglomerates nor theoretical analysis has brought substantial agreement as to their effects on competition.

Claims are regularly made that conglomerate management can raise the efficiency of the combined companies by bringing to bear financial resources and superior central management skills which the separate companies do not possess. However, it is also pointed out that the problems of management become more complex with the possibility of decreased efficiency. The experience of large conglomerates would appear to be mixed, with some of them having serious management difficulties. Unfortunately, the financial reports of most conglomerates do not allow a before-andafter comparison of operations. Revising accounting procedures, reshuffling underlying properties, and consolidating accounts make it impossible even to compare before-and-after profits and to distinguish between profits arising from changes in accounting, profits from inflation, and profits from improved management. Even if there were profits from improved management and the figures were available, there would still be the problem of distinguishing between profits from increased efficiency and profits from increased market power.

Until there is substantial evidence to the contrary, there is good reason to be skeptical of the claims of increased efficiency alleged to result from bringing under one central control, the operations of diverse separate companies which usually make up a big conglomerate. Many of the management skills which a central conglomerate management is supposed to supply could be obtained by the constituent companies from independent management consulting firms. Furthermore, the proposition that the new financing provided by the conglomerate is cheaper than that which the constituent companies could obtain has yet to be firmly established.

There is substantial agreement, though, that a conglomerate has opportunities to increase short-run profits through tax and accounting procedures not open to the separate companies. If a conglomerate acquires a company by exchanging bonds for outstanding stock, income taxes are saved on earnings paid out as interest, an action not open to an individual company. There may be opportunities for setting losses off against gains. Profits can be temporarily increased by altering depreciation policies, and in other ways profits may be increased for a time without any change in operating efficiency.

There also seems to be agreement that a two-billion dollar conglomerate has greater financial and market power than the separate companies which it has taken over. Though just how much greater power is involved and how it affects competition has not been definitely ascertained.

Part of the market power of a big conglomerate comes from its ability to finance losses in one activity from earnings in others. This ability can distort the workings of competition in at least two different ways. It allows the conglomerate to carry on nonprice rivalry through advertising, sales effort, model changes, services to buyers, and similar means so that sales go to the conglomerate because of its financial resources and not because of lower costs. This type of rivalry tends to increase industry costs and result in higher prices and less efficient use of resources. In a particular market, a conglomerate can carry on destructive price competition or take other measures to damage a rival with the knowledge that the rival is likely to be hurt more than the conglomerate. Although, in the short-run, this may benefit customers, in the longer run, a weakening of the rival may result in higher prices.

Even if neither of these actions were taken, the mere existence of the power to take them could be expected to reduce competition. The other enterprises in the particular industry would know that these actions *could* be taken and would be less willing to initiate competitive moves which they would otherwise employ to intensify competition. Likewise, potential entrants into the industry would be less willing to enter the industry when they know that one of the few companies in the industry was controlled by a conglomerate with its considerable market power. This could significantly increase the difficulty of entry.

A merger of a company in a concentrated industry into a big conglomerate could also affect competition quite apart from the conglomerate's market power. The conglomerate, without merging a company already operating in the industry, is itself a potential entrant into the industry. If it had to build its own new plants to enter, competition would be strengthened. The merger would eliminate this potential entrant.

Finally, if there were two conglomerates, each carrying on activity in a number of the same markets, competition is likely to be lessened. If Conglomerate A is competing with Conglomerate B in both the market for gadgets and for widgets, it might forbear to push competition in the market for gadgets because of the danger of retaliation in the widget market. The more markets served by conglomerates, the greater this competitive forbearance is likely to become.

The ways in which a conglomerate merger can reduce competition raise two major questions of policy. In appraising a conglomerate takeover of a company from the point of view of the public interest, how should the various ways in which competition is likely to be reduced be weighed in deciding whether there is likely to be a "substantial reduction of competition?" If there were a small amount of horizontal competition between the merged company and one or more of the conglomerates plus other activities and some cross-buying between it and them, so that the merger involved an element of vertical integration, and additionally, if each of the other ways that the merger would affect competition was small although the aggregate of these was large, would the merger involve a "substantial reduction" in competition? Or would the reduction have to be substantial in at least one of the ways discussed? And to what extent, if any, should the anti-trust laws be modified to deal with the problems raised by conglomerate mergers?

J. The Larger Problem of Competition

There still remains the question of the extent to which such administrative competition under the antitrust laws can be expected to keep prices in reasonable relation to cost. Present-day theory suggests that in industries lacking easy entry, profits are likely to average appreciably higher than a competitive rate. The statistical evidence also suggests that this is the case. Income tax statistics show a higher average rate of return on capital for large companies than for medium or small companies, and presumably this is true for the more concentrated industries than for the less. If this is the case, then the level of present-day competition must be falling short of maintaining prices in a reasonable relation to business costs. To this extent, resources are not being channeled into the most effective use, and income distribution is to this extent distorted. This presents a real problem. When concentrated enterprise operates under conditions of administrative competition, can it be expected that the market and competition alone can ensure business operation in such a way that within the limits of business costs and business activity resources are effectively used and incomes fairly distributed? This is what classical competition was supposed to bring about.

Since this article is concerned with corporate concentration, little attention has been given to labor organization and its effect on prices and the distribution of income. This could be the subject of a separate article. In this regard, only three things need to be said. First, when an industry makes more than a competitive rate of return on capital, this can be expected to make labor relations more difficult. Second, under conditions of administrative competition and difficult entry, labor pressure for higher wages is not likely to eliminate a discrepancy between prices and a competitive rate of return. Instead, increases in wage rates in excess of increased productivity are likely to increase costs which will be made the basis of price increase. Third, fairness of wages as between different industries and the direction of resources into different uses will each depend in part on the extent that labor organizations work to bring about such fairness.

None of these propositions alter the analysis of the effect of corporate concentration on competition, on the use of resources, and on income distribution but they do highlight the importance of labor concentration to the use of resources and the distribution of income.

IV. CORPORATE CONCENTRATION AND A WAY OF LIFE

In the preceding text, attention has been focused on the problems created by corporate concentration within the general framework of a business economy. Attention will now be focused on the society and the problems of the good life that concentration and the corporation have generated which lie outside the scope of a business economy but which relate to it. Only four of these problems will briefly be touched on here: the discrepancy between business costs and social costs; the distribution of income in a good society; living with the big corporations; and the political role of the big corporations.

A. Business Costs vs. Social Costs

It has long been recognized that there can be a serious discrepancy between business costs and social costs. The factory inspection laws have reduced the social cost of factory operation which was not included in business costs, and the compensation acts have made a social cost into a business cost. The current concern with pollution is leading to similar

action, either to eliminate a social cost or to convert it into a business cost. The intermittent or irregular employment of workers has in part been converted into a business cost through unemployment insurance but it is still carried to an important extent by individuals. Social costs not now included in business costs present a real problem in the use of resources. To the extent that these social costs can be eliminated, there is a solution, but to the extent that they are converted into business costs, resources can be expected to be directed by business into different uses in relation to social as well as business costs. In some cases, the discrepancy between social and business costs may be more effectively handled by charging it directly to the government, as in the case of education.

This discrepancy between social and business costs has always existed, but the success of big corporate enterprise in creating an affluent society has heightened the problem: it has made the measures to eliminate social costs or to convert them into business cost no longer a luxury but a necessity for the good life. The problem is to determine what these uncovered social costs are and to determine how they should be handled and who should pay for or suffer them.

B. The Distribution of Income

The concentrated economy presents three types of income distribution problems. The first problem arises from discrepancies between corporate earnings and the competitive rate of return on capital where competition is administrative and entry is difficult. This has already been discussed. It presents a real problem of how corporate earnings can be kept in reasonable relation to costs.

The second income problem evolves from other imperfections in the working of the system as the concentrated economy fails to make the adjustments which were to be expected in an economy of classical competition. In the classical economy of atomistic enterprise, involuntary unemployment was expected to be of such short duration that there was no great hardship on individuals, and those employed were expected to receive income in proportion to the value of their contribution. However, in a concentrated economy operating under conditions of administrative competition, there can be substantial discrepancies between reward and potential contribution, which are only partly alleviated by social security programs. In this area, the problem is complex. It is partly a matter of organization, partly one of fitting jobs to people, and partly one of fitting people to jobs. The unemployment of two million persons willing and capable of working is the equivalent of throwing away approximately ten billion dollars of income.

The third problem of income distribution concerns those individuals unable to make a substantial contribution and to obtain a substantial income under the concentrated-economy system of production. This includes not only "the lame, the halt and the blind" of traditional analysis but the psychological misfits that the system rejects or for which it does not make a place. It also includes those who are only capable of low productivity. Again, social security programs deal with this problem to some degree. Since the affluence arising from the concentrated economy makes the establishment of a minimum level of incomes not only feasible but almost mandatory, the central problem here is how and at what level this can most effectively be done.

C. Corporate Concentration and the Good Life

Economists used to treat labor as a commodity and analyze the role of a worker in the economy much as they would analyze the role of a sack of wheat or a bale of cotton as a raw material input in the production of output. Today, working for a big corporation has become a way of life for a large proportion of workers. Apart from sleeping and eating, nearly half of a worker's time is likely to be spent at the job or going to and from it. The affluent society, therefore, must reflect that affluence in the conditions surrounding the work. Labor unions have pushed for better working conditions and corporations have contributed to better conditions. But the rise in affluence has altered the magnitude of the problem. The good life is a problem during working hours as well as outside them.

D. Corporate Concentration and Government

Corporate concentration has also posed a major problem in the relationship of government to business. As long as production was carried on by relatively small business, political theory could be built on the assumption of an atomistic electorate. Pressures from constituents on elected representatives and public officials which, though individually biased, would in the aggregate serve to guide them toward the public interest. Concentration of much production into the hands of a relatively few giant corporations conflicts with the assumptions of traditional political theory and presents a set of problems which have been recognized but are far from being thought through or dealt with adequately. Such measures as those which prevent corporate contributions to political parties and which require registration of corporate lobbyists are moves in that direction. But the power of corporations on government far exceeds the bounds suggested by these measures. To some extent, it is offset by the pressures from labor organizations and other organized groups. But it still represents a major pressure. The problem is to determine the ramifications of this pressure and to develop the balances which will result in government in the public interest.

V. CONCLUSION

This article has sought to appraise the degree of corporate concentration and the major problems of public policy which this concentration has engendered. It has examined the changes brought about by concentration for the economy as a whole and the problems this has created in the economy-wide policies with respect to total employment, inflation, and the balance of external payments. It has examined the changes in the dominant form of competition and the major problems these have created with respect to the use of resources and the distribution of income. It has sketched other major problems arising from corporate concentration or associated with it, but lying outside the areas of overall economic policy and competition. Any effort of an individual to classify major and minor problems is necessarily subjective. Others attempting the same task would undoubtedly include other problems as major and exclude some the author has included, or would state them differently, or would find a different relation between the problems and corporate concentration. In any event, although it is important to clarify the major problems of public policy created by corporate concentration, an even more important task is to find solutions.







* R. Nelson, Merger Movements In American Industry, ch. III, Appendix B (1959).





* TEMPORARY NATIONAL ECONOMIC COMMITTEE, MONOGRAPH NO. 27 (1919-39); FEDERAL TRADE COMMISSION, (1940-61).

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CHART III MANUFACTURING AND MINING FIRMS ACQUIRED** 1948-1969

* Firms with assets of \$10 million or more.

** BUREAU OF ECONOMICS, FEDERAL TRADE COMMISSION, CURRENT TRENDS IN MERCER ACTIVITY, 6 (1970).





* Corporations, proprietorships and partnerships. *** BUREAU OF ECONOMICS, FEDERAL TRADE COMMISSION, ECONOMIC CONCENTRATION, pt. 1, p. 206.



** Annual rate based on first 6 months for the year 1968.