Pre-Merger Growth and Profit Characteristics of Large Conglomerate Mergers in the United States: 1948--1968

Stanley E. Boyle
PRE-MERGER GROWTH AND PROFIT CHARACTERISTICS OF LARGE CONGLOMERATE MERGERS IN THE UNITED STATES: 1948-1968

STANLEY E. BOYLE*

In recent years, concern has been evidenced from many quarters regarding the trend and competitive significance of conglomerate mergers among the largest American manufacturing corporations. Many view this as a wholly desirable turn of events, while others, principally economists and government officials, view this as a crushing blow to the continued viability of our economic system. To those in this latter group, the spectre of giant American business looms larger and larger.

For about 40 years, beginning with the work of Berle and Means, The Modern Corporation and Private Property, continuing and growing concern has been voiced over the increased control over business sales, assets, and profits which is exercised by a limited number of firms. Kaplan, Weston, Stigler, Edwards, and the Federal Trade Commission (FTC) among others, were interested in this phenomenon during the period immediately following the close of World War II. Each of them, in a different way and for somewhat different reasons, pointed out that substantial increases in the level of concentration were a significant factor affecting the strength of competition in American industry.

Once again, renewed emphasis has been placed upon the rise of general concentration and upon the increased significance of conglomerate mergers.


The collection of the basic data used in this paper was begun while the author was Chief, Division of Industrial Analysis, Bureau of Economics, Federal Trade Commission. My thanks to Donald C. Darnton and Joseph P. McKenna for their comments on an earlier draft of this paper, and to Alice Mae Nicholsen for her untiring assistance in the preparation and analysis of much of the data contained in this paper over the past year. The views expressed are those of the author.

2 A. KAPLAN, BIG ENTERPRISE IN A COMPETITIVE SYSTEM (1954).
5 C. EDWARDS, MAINTAINING COMPETITION: REQUISITES OF A GOVERNMENTAL POLICY 91-155 (1949).
This movement has been most pronounced during the last five to six years. Papers submitted by a variety of economists during the 1964-1966 Economic Concentration Hearings of the Senate Antitrust Subcommittee,\textsuperscript{7} and recent studies by Narver,\textsuperscript{8} Martin,\textsuperscript{9} Reid,\textsuperscript{10} Kelly,\textsuperscript{11} Turner,\textsuperscript{12} and others have focused attention upon the merger problem in general; but more specifically, attention has been focused on the economic problems which attend a rapid rise in conglomerate merger activity. Despite the substantial efforts which have been devoted to such mergers in recent years, relatively little of a detailed nature is known regarding their actual competitive effect. Studies conducted thus far deal primarily with the number of such mergers which have occurred, the industries of the acquiring and acquired firms, and in the case of large mergers, the size of the acquiring and acquired firms. These data, while vital and necessary to undertake any general economic analysis of these events, do not by themselves provide a sufficient background for appraising their competitive significance. Some studies have devoted themselves primarily to hypothesizing about the competitive effect of such mergers. These provide a useful theoretical base for subsequent evaluations of large conglomerate mergers, but by themselves provide few insights into the real problems raised by them.

This study deals primarily with what I feel are some neglected aspects of the analysis of merger activity. It is my feeling that an adequate analysis of the post-merger competitive significance of such acquisitions should take into account some of the pre-merger financial and growth characteristics of the firms which are acquired. In other words, if we are to appraise the effect of such mergers upon competition, we must be able to appraise the probable viability of the acquired firms in the absence of merger.

Some economists and others have alleged that the attitudes of the antitrust agencies toward mergers might well be modified if they viewed merger as a logical alternative to bankruptcy. One exponent of this position, Donald Dewey, has expressed the opinion that a substantial proportion of firms being acquired fit into the category of "potentially" failing firms.\textsuperscript{13} Building upon this concept, Henry Manne argued that if in fact this was the case, then merger activity should be looked upon simply as a more efficient method of transferring corporate assets, and thus, insuring continuity of

\textsuperscript{7}Hearings on Economic Concentration Before the Subcomm. on Antitrust and Monopoly of the Senate Comm. on the Judiciary, 88th Cong., 2d Sess., 89th Cong., 1st Sess., pts. 1 & 2 (1964 & 1965).
\textsuperscript{8}J. Narver, Conglomerate Mergers and Market Competition (1967).
\textsuperscript{9}D. Martin, Mergers and the Clayton Act (1959).
\textsuperscript{10}S. Reid, Mergers, Managers and the Economy (1968).
\textsuperscript{11}E. Kelly, The Profitability of Growth Through Merger (1967).
\textsuperscript{12}Turner, Conglomerate Mergers and Section 7 of the Clayton Act, 78 Harv. L. Rev. 1313 (1965).
corporate activity. Both Dewey and Manne assume, either explicitly or implicitly, that an increase in monopoly power is not the basic purpose of most acquisitions. While not assuming that conglomerate mergers are responsible for increased monopoly in individual product markets, Walter Mead is concerned with the effect of conglomerate merger upon the "instantaneous increase in the earnings per share of any acquiring company due solely to the merger and totally independent of operating efficiency." Despite the increased concern over the impact of the recent wave of merger activity, only a limited number of useful empirical studies exist. The most important of these have been undertaken by the Federal Trade Commission, including its Economic Report on Corporate Mergers (FTC Report), which was completed in October, 1969. This rather sizable report represents, for the most part, a collection and updating of a study which had been made over the past five years, with the addition of some new material.

Because of the variety of new problems raised by conglomerate mergers, many have argued that new approaches and analytical techniques are necessary if we are to make serious progress in appraising the competitive impact of conglomerate merger. Nowhere has this dissatisfaction been more evident than in statements by some members of the FTC. In a recent speech, Commissioner Philip Elman highlighted his concern in this way:

To borrow a phrase from Mr. Justice Holmes, it seems to me that at this time we need "investigation of the obscure" more than further "education in the obvious."

What is obvious — and disquieting — is the impact of the current merger movement on the structure of the economy. The number and size of conglomerate mergers have substantially increased in recent years; the percentage of industrial assets owned by the largest 200 firms has increased significantly in the past two decades . . . and mergers have contributed substantially to this increase in aggregate concentration.

What is "obscure," however, and in need of further investigation, are the actual competitive consequences of these merger-induced structural changes.

In a separate statement attached to the recently completed FTC Report, Commissioner Mary Gardiner Jones echoed this theme, but in a somewhat different form. She pointed out that detailed analysis of actual industry conditions is preferable to general and sometimes vague theorizing. Moreover, such data are indispensable to any analysis of competitive mergers. In commenting on the recent FTC Report, she pointed out that the:

[S]taff's conclusions and recommendations could have been made before

16 BUREAU OF ECONOMICS, FTC, ECONOMIC REPORT ON CORPORATE Mergers (1969) [hereinafter cited as FTC REPORT].
this study was initiated. In making its conclusions and recommendations, staff is asking the Commission and the public to share its faith in the anticompetitiveness of conglomerate mergers, and to substitute that faith for hard data.\textsuperscript{18}

Thus, both Commissioners Elman and Jones suggest that innovative and detailed investigation of post-merger industry and company conditions is necessary. As a part of this approach, considerable attention should be devoted to the pre-merger viability of the acquired companies. Was the company a failing concern? Was it nearing bankruptcy? Was it in danger of stagnation and eventual demise? Or, on the other hand, were the acquired companies growing and viable corporations, as strong or stronger than others of their size and in their industry? In an effort to answer some of these questions, this paper examines the pre-merger viability of some 700 large acquired companies. Others may take these data and together with their own arrive at their own conclusions regarding the competitive significance of the disappearance of these large corporations.

The purpose of this paper is relatively limited. It is aimed solely at providing information, heretofore unavailable, regarding the pre-merger growth and financial conditions of a substantial sample of the total of all large manufacturing and mining corporation mergers which occurred between 1948 and 1968. It is not designed to provide answers to all, or even a substantial number, of the unanswered questions which exist regarding the competitive significance of conglomerate mergers.

Part I of this paper looks briefly at the recent trend of merger activity, comparing its significance with that of the other two major waves of merger activity which have occurred in the United States.

Part II contains a short comparison of some selected characteristics of the sample used here with those of all large mergers. Particular attention is devoted to their distribution by asset-size class of acquired company and by type of merger.

Part III examines the pre-merger profitability of the sample firms and compares the results obtained in this study with those obtained in two earlier FTC studies. Specific attention is devoted to the pre-merger viability of firms involved in conglomerate and other types of mergers. Also, it compares the profitability of the large acquired companies with all manufacturing corporations.

Part IV examines the growth characteristics of the sample firms over the five years prior to their acquisition. This analysis notes growth patterns in both the absolute level of profits and corporate assets. The analysis notes differences, where they exist, by the type of merger.

Part V summarizes the results and suggests some logical extensions of the analysis.

\textsuperscript{18} Jones, \textit{Separate Statement}, in FTC \textit{Report} XIII. Unfortunately Commissioner Jones' comment implies that the results of the \textit{Staff Report} were both trivial and predetermined. Any serious examination of the \textit{Report} shows that such conclusions are unwarranted and untrue.
I. THE TREND OF MERGER ACTIVITY

One of the most pronounced trends in American industry has been the substantial increase that has occurred in the rate of disappearance via merger of manufacturing and mining corporations in recent years.

The data contained in Table I show the rapid growth in merger activity, particularly in the growth of large conglomerate mergers, since 1948. The annual rate of firm disappearance has increased tenfold over this period, while the rate of large firm merger increased by a multiple of 30. The number of large conglomerate mergers has grown at an even faster rate.

Over the period 1948-1968 a total of 1,276 large corporations were acquired. Of these, 1,180, or approximately 92 percent, were acquired between 1955 and 1968. The rate of increase was particularly rapid during the last three years of this period. The number of such mergers increased from 99 mergers in 1966, to 167 in 1967, and to 201 in 1968. While the number of these large mergers doubled, in the past three years the value of assets acquired has more than tripled—from $4.2 billion in 1966 to $12.8 billion in 1968. Thus, there is little doubt that we are undergoing a tremendous increase in merger activity, particularly among large manufacturing and mining companies. The magnitude of this movement can be seen by comparing the increase in merger activity over the 1964-1968 period with that shown by Carl Eis in his recent study of merger activity in the five-year period, 1926-1930, and in Nelson's earlier study of the 1898-1902 period.

Nelson showed that in the peak five years of the first major merger

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TABLE I
MERGER PATTERNS IN MINING AND MANUFACTURING,
SELECTED YEARS: 1948-1968

<table>
<thead>
<tr>
<th>Year</th>
<th>All Mergers</th>
<th>All Large Mergers</th>
<th>Large Conglomerate Mergers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1948</td>
<td>223</td>
<td>6</td>
<td>2b</td>
</tr>
<tr>
<td>1953</td>
<td>295</td>
<td>23</td>
<td>12b</td>
</tr>
<tr>
<td>1958</td>
<td>589</td>
<td>37</td>
<td>24b</td>
</tr>
<tr>
<td>1963</td>
<td>861</td>
<td>71</td>
<td>47b</td>
</tr>
<tr>
<td>1968</td>
<td>2,442</td>
<td>201</td>
<td>161</td>
</tr>
</tbody>
</table>

*Large mergers are defined as those in which the acquired firm had assets of $10 million or more at the time of acquisition.

*Estimates for specific years arrived at by adjusting the number of large mergers for that year by the five-year average of large conglomerate mergers around date shown.


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19 FTC Report 42-49.
period, some $6.3 billion of capital assets were involved in mergers.\textsuperscript{22} Eis concluded that $7.3 billion is a reasonable estimate of the capital involved in acquisitions during the peak years of the second merger movement.\textsuperscript{23} These appear to be rather minor amounts when compared with the amounts involved in mergers of mining and manufacturing companies over the five-year period, 1964-1968. In the most recent period, the total amount of capital was about three times the combined capital assets of acquired companies in both of the earlier peak periods — $40.0 billion compared with $13.6 billion.\textsuperscript{24} Thus, the current merger movement is without parallel in the industrial history of the United States.

II. COMPARISON OF SELECTED CHARACTERISTICS

The analysis included in this paper is based upon a portion of the large acquisitions reported by the Federal Trade Commission during the past 20 years. Specifically, it examines the pre-merger profit and growth experience of 698 of the 1,276 large manufacturing companies which were acquired between 1948 and 1968 — about 55 percent of the total. Two factors explain the exclusion of the other 45 percent. First, the vast majority of the excluded firms (more than 375) represent the acquisition of privately-held companies, for which accurate financial data were not available. The remainder were excluded because of our inability to obtain complete five-year profit and growth data for them from standard statistical and financial manuals.

A question of some interest is the impact, if any, that the omissions may have on the validity of the results obtained. In other words, do the excluded companies have some characteristics which, when excluded, tend to bias the direction of the resulting data? To answer this question, I have compared the sample used with three characteristics of the total population of large mergers — by type of acquisition, by size of acquired firm, and by average size of acquisition.

The figures shown in Table II indicate the problems involved in obtaining data for relatively small corporations, particularly where an attempt is made to obtain data covering a full five year period preceding the acquisition. This latter problem explains the difference between the “Listed” and “Sample” totals. No firm was included in the sample unless data were available for it for all five years prior to its acquisition. Despite the differences in the number of firms included in each size class, a simple exercise in long division indicates that the average size of the listed and unlisted companies in each size group is roughly the same. The one major exception to this is in the $250 million and over size class. No unlisted companies of that size have been acquired.\textsuperscript{25} The smallest difference was in the $100-250 million

\textsuperscript{22}Id. at 37.
\textsuperscript{23}Eis, supra note 20, at 295.
\textsuperscript{24}FTC REPORT Appendix Table 1-2.
\textsuperscript{25}Unlisted companies, as used in this context, are those companies which are either privately-held or which are not listed with the Securities and Exchange Commission.
TABLE II
DISTRIBUTION OF LARGE ACQUIRED MINING AND MANUFACTURING CORPORATIONS,
BY SIZE OF ACQUIRED COMPANY: 1948-1968
(as percent of total large acquisitions)

<table>
<thead>
<tr>
<th>Asset Size of Acquired Company</th>
<th>Distributions of Acquisitions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All Large</td>
</tr>
<tr>
<td>$10-25 Million</td>
<td>57.3</td>
</tr>
<tr>
<td>25-50 Million</td>
<td>23.1</td>
</tr>
<tr>
<td>50-100 Million</td>
<td>11.8</td>
</tr>
<tr>
<td>100-250 Million</td>
<td>6.0</td>
</tr>
<tr>
<td>250 Million &amp; Over</td>
<td>1.8</td>
</tr>
</tbody>
</table>

NOTE: Figures subject to rounding.
SOURCE: FTC; Moody's Industrial Manuals, various issues; company annual reports.

size class — less than $1 million. The largest was in the $50-100 million size class — about $3 million.

From the point of view of this paper, the data contained in Table III are of somewhat more significance than those in Table II. The distribution of mergers by type of merger activity in the sample that is being used is almost identical with that in the total. The sample contains slightly more horizontal and conglomerate mergers, and a slightly smaller proportion of vertical mergers.

TABLE III
DISTRIBUTION OF LARGE ACQUIRED MINING AND MANUFACTURING CORPORATIONS,
BY TYPE OF ACQUISITION: 1948-1968
(as percent of total acquisitions)

<table>
<thead>
<tr>
<th>Type of Acquisitions</th>
<th>All Acquisitions</th>
<th>Sample Mergers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horizontal</td>
<td>16.2</td>
<td>16.8</td>
</tr>
<tr>
<td>Vertical</td>
<td>13.6</td>
<td>12.3</td>
</tr>
<tr>
<td>Conglomerate</td>
<td>70.2</td>
<td>70.9</td>
</tr>
</tbody>
</table>

SOURCE: FTC; Moody's Industrial Manuals, various issues; company annual reports.

In sum, it would appear that the sample of mergers used in this paper is representative of the total number of such mergers which occurred during this period, particularly in terms of average size and type of acquisition. The difference in the distribution of firms by asset-size class is basically a function of the fact that the bulk of the unlisted companies which were acquired were in the smallest asset-size class — $10-25 million. Unfortunately, it is not possible to compare the other relevant characteristics, i.e., profitability and growth.

III. PRE-MERGER PROFITABILITY

As a result of certain allegations made in the past regarding the financial viability of acquired companies, two other studies have included brief analyses of the profitability of large acquired companies. It was not the
basic intent of the studies to provide a test of the failing firm thesis suggested by Donald Dewey, i.e., that mergers "are merely a civilized alternative to bankruptcy, or the voluntary liquidation that transfers assets from failing to rising firms." For the most part this comment has passed relatively unnoticed and may have remained so were it not for an article by Henry Manne which appeared in 1965. While Manne did not argue forcefully in support of the Dewey position, he did make some effort to explain it. Also, he implied that it offered strong support for his arguments.

If the Dewey thesis is correct, then a detailed examination of large merger activity should show that a majority of all mergers should involve companies which are (1) declining, (2) at or near the borderline of failing, or (3) actually losing money. If this position cannot be supported on the basis of empirical evidence, it is obvious that it should be excluded as an important argument in the transfer of corporate wealth via merger.

The first such study was completed in 1964. It included rate of profit information for 165 large acquired companies in the year prior to their acquisition. These data show that only 10 percent of those firms were actually losing money in the year prior to acquisition. At the other extreme, more than 35 percent of the acquired companies earned 10 percent or more on stockholder's equity after taxes.

### Table IV

**Profitability of Large Acquired Corporations in Two Federal Trade Commission Studies**

<table>
<thead>
<tr>
<th>Rate of Return</th>
<th>Study A¹</th>
<th>Study B²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative</td>
<td>10.3</td>
<td>4.3</td>
</tr>
<tr>
<td>0 -4.9</td>
<td>16.9</td>
<td>13.0</td>
</tr>
<tr>
<td>5.0-9.9</td>
<td>37.6</td>
<td>31.0</td>
</tr>
<tr>
<td>10.0-14.9</td>
<td>22.4</td>
<td>22.4</td>
</tr>
<tr>
<td>15.0-19.9</td>
<td>8.5</td>
<td>14.0</td>
</tr>
<tr>
<td>20.0 and over</td>
<td>4.3</td>
<td>4.6</td>
</tr>
</tbody>
</table>

¹ Profits after taxes as a percent of stockholder's equity.
² Includes 165 companies with assets of $10 million or more.
³ Includes 401 companies with assets of $25 million or more.

SOURCE: 'Concentration Hearings Part 1' at 129 (statement of H. Mueller) (see supra note 7); FTC REPORT 57.

The data obtained from the most recent FTC study shows that the relatively profitable position shown for the large acquired companies in the earlier study was, if anything, understated. In the most recent FTC study,

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26 Dewey, supra note 13, at 257.
27 Manne, supra note 14, at 111 et seq.
28 Manne's paper is an entertaining and articulate addition to the literature which criticizes the present interpretation and application of our antimonopoly statutes. Its basic shortcoming is that it accepts the arguments of many critics, without attempting to determine whether or not the arguments have merit.
it is shown that only 4.3 percent of the large acquired companies had in-
curred losses in the year immediately prior to their acquisition. Also, a
substantially smaller proportion of them were experiencing relatively low
levels of profitability. The earlier study showed that 27.2 percent of the
acquired companies lost money or had a rate of profit of less than 5 percent
in the year prior to acquisition. By comparison, only 17.3 percent of the
firms included in the second study experienced losses or extremely low levels
of profitability. Symptomatic of the generally higher levels of profits seen in
the latter study are the figures showing the percentage of firms earning
profits of 10 percent or more — 51.1 percent in the second study compared
with 35.2 percent in the first.

Considering the staff and available resources of the FTC, the relatively
small sample (401 firms) which is analyzed in their recent study is somewhat
confusing. Given their access to individual company profit data, they should
have been able to report data for almost 90 percent of the whole sample.
Particularly troublesome is their failure to include those firms with assets
from $10-25 million in the analysis.

The data obtained in a parallel study conducted by the author for
almost 700 companies are shown in Table V. As would be expected, these

<table>
<thead>
<tr>
<th>Rate of Returna</th>
<th>Distribution of Large Mergersb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative</td>
<td>4.8</td>
</tr>
<tr>
<td>0-4.9</td>
<td>4.8</td>
</tr>
<tr>
<td>5.0-9.9</td>
<td>15.2</td>
</tr>
<tr>
<td>10.0-14.9</td>
<td>31.3</td>
</tr>
<tr>
<td>15.0-19.9</td>
<td>29.4</td>
</tr>
<tr>
<td>20.0 and over</td>
<td>11.5</td>
</tr>
</tbody>
</table>

a Profits after taxes as a percent of stockholder's equity.
b Includes 698 companies.
Source: FTC; Moody's Industrial Manuals, various issues; company annual reports.

data tend to substantiate, in general outline, the data included in the most
recent FTC study. The most notable difference is in the number of acquired
firms which earned profits of 20 percent or more in the year prior to acqui-
sition. My study shows 7.8 percent of the acquired companies had rates of
20 percent, compared with 4.3 percent and 4.6 percent respectively in the
two FTC studies. This is compensated for by modest changes elsewhere.

The most recent FTC study suggests that the average rate of profit
earned by all manufacturing corporations (except automobile manufac-
turers) over the past 15 years was approximately 10 percent. The data

FTC Report 57.
LARGE CONGLOMERATE MERGERS

contained in Table V indicate that the median profit rate for the sample group of companies included in this study was slightly less than that.

Our primary interest, however, is in the extent to which differences may exist in the level of profits of firms involved in conglomerate mergers as compared with other types of mergers. Many discussions of conglomerate mergers are couched in terms of advantages to be gained through diversification which may result in stabilized profits.\(^{30}\) Hopefully, at least from the acquiring company's position, this may mean the acquisition of companies that actually have, or show promise of having, healthy profit positions. On the other hand, it is sometimes inferred that past profitability may be less important in the case of horizontal mergers. In horizontal mergers, the acquiring company is seeking to improve its short-run market position by eliminating an actual competitor, with the hope of increasing its long-run profit position. In the absence of concrete data, either position is in the realm of pure supposition.

Are there noticeable differences in the rate of return earned by firms prior to their acquisition which can be related to the type of merger activity involved? An examination of the data contained in Table VI and Figure 1

### TABLE VI

PRE-MERGER PROFITS OF LARGE ACQUIRED FIRMS, BY TYPE OF ACQUISITION: 1948-1968

<table>
<thead>
<tr>
<th>Rate of Profits</th>
<th>Vertical</th>
<th>Horizontal</th>
<th>Conglomerate</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative</td>
<td>2.6</td>
<td>6.9</td>
<td>6.1</td>
<td>4.8</td>
</tr>
<tr>
<td>0 -4.9</td>
<td>16.3</td>
<td>23.0</td>
<td>11.9</td>
<td>15.2</td>
</tr>
<tr>
<td>5.0-9.9</td>
<td>36.1</td>
<td>29.1</td>
<td>30.9</td>
<td>31.3</td>
</tr>
<tr>
<td>10.0-14.9</td>
<td>33.8</td>
<td>20.5</td>
<td>30.8</td>
<td>29.4</td>
</tr>
<tr>
<td>15.0-19.9</td>
<td>5.6</td>
<td>11.9</td>
<td>12.3</td>
<td>11.5</td>
</tr>
<tr>
<td>20.0 and over</td>
<td>5.6</td>
<td>8.5</td>
<td>8.0</td>
<td>7.8</td>
</tr>
</tbody>
</table>

*Profits after taxes as a percent of stockholder's equity for 698 large acquired corporations.

Note: Figures subject to rounding.

Source: FTC; Moody's Industrial Manuals, various issues; company annual reports.

indicate that the answer to this question is clearly "yes." It should be pointed out that the results depend upon the method employed in adding the subcategories together. The most recent FTC study places market extension and horizontal mergers in the same general category. The object of such a classification is somewhat unclear and would seem to obscure rather than clarify the basic analysis.

The data shown in Figure 1 indicate that, quite clearly, conglomerate mergers involved firms which, as a group, earned higher profits. Of the large horizontal acquisitions, 59 percent involved corporations which had a rate

FIGURE 1
PROFITABILITY OF LARGE ACQUIRED CORPORATIONS IN YEAR PRIOR TO ACQUISITION,
BY TYPE OF MERGER: 1948-1968

Percent
of Firms

Profit Rate of Median Firm
Horizontal ....... 8.8%
Vertical ........ 9.2
Conglomerate ....10.2
ALL ............... 9.9

RATE OF RETURN

*a Profits after taxes as a percent of stockholder's equity.
Source: Table VI.

of return of less than 10 percent, while the corresponding figures for vertical and conglomerate mergers were 55.0 percent and 48.9 percent respectively. The impression gained from examining the distribution of firms by rate of profit and type of merger is supported by the data referring to rate of profit earned by the median firm in each merger type category. The median profit rate earned by firms involved in horizontal mergers was 8.8 percent. For vertical mergers the profit rate was 9.2 percent. In the case of conglomerate mergers, however, the corresponding figure was 10.2 percent. Therefore, the evidence seems clear: conglomerate acquisitions involved companies which had higher rates of return prior to their acquisitions than either of the two other major categories. As a consequence, it is impossible to agree with the FTC Report's conclusion that: "A disproportionate number of unprofitable mergers involved horizontal and market-extension type acquisitions. . . ." 31 It is certainly true in the case of horizontal mergers, but not for market-

31 FTC Report 57. A portion of the difference between the results obtained by the FTC and in this study may be attributed to the fact that the FTC omitted acquisitions of firms with assets from $10 to $25 million from this comparison. Their omission substantially alters the results obtained.
extension mergers. It seems that the FTC Report might have reached different conclusions had all the data at the Commission's disposal been utilized.

One final set of comparisons may assist in appraising the competitive effect of these large mergers, i.e., how the profits of the acquired companies compare with those of other corporations of the same size. This portion of the analysis employs a slightly shorter time period — 1951-1966. Prior to 1951 the number of large acquisitions is so small that it is meaningless to compare the rate of return data for acquired companies with those for all other corporations of that size. The data in Table VII indicate that no ap-

### Table VII

<table>
<thead>
<tr>
<th>Year</th>
<th>QFRa, Merger</th>
<th>QFRa, Merger</th>
<th>QFRa, b, Merger</th>
<th>QFRa, b, Merger</th>
</tr>
</thead>
<tbody>
<tr>
<td>1951</td>
<td>7.8</td>
<td>9.0</td>
<td>9.9</td>
<td>7.1</td>
</tr>
<tr>
<td>1952</td>
<td>6.3</td>
<td>7.5</td>
<td>6.3</td>
<td>4.6</td>
</tr>
<tr>
<td>1953</td>
<td>6.5</td>
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<td>1954</td>
<td>6.1</td>
<td>6.5</td>
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<td>8.7</td>
</tr>
<tr>
<td>1955</td>
<td>7.5</td>
<td>6.1</td>
<td>7.7</td>
<td>9.0</td>
</tr>
<tr>
<td>1956</td>
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<td>6.4</td>
<td>8.1</td>
<td>9.7</td>
</tr>
<tr>
<td>1957</td>
<td>6.5</td>
<td>5.9</td>
<td>6.9</td>
<td>8.0</td>
</tr>
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<td>1958</td>
<td>5.1</td>
<td>4.3</td>
<td>5.5</td>
<td>5.7</td>
</tr>
<tr>
<td>1959</td>
<td>6.7</td>
<td>5.0</td>
<td>7.1</td>
<td>6.2</td>
</tr>
<tr>
<td>1960</td>
<td>5.3</td>
<td>4.2</td>
<td>5.7</td>
<td>5.6</td>
</tr>
<tr>
<td>1961</td>
<td>4.9</td>
<td>3.9</td>
<td>5.4</td>
<td>5.3</td>
</tr>
<tr>
<td>1962</td>
<td>5.4</td>
<td>4.4</td>
<td>5.5</td>
<td>5.5</td>
</tr>
<tr>
<td>1963</td>
<td>5.3</td>
<td>4.4</td>
<td>5.8</td>
<td>5.5</td>
</tr>
<tr>
<td>1964</td>
<td>6.2</td>
<td>6.1</td>
<td>6.7</td>
<td>6.2</td>
</tr>
<tr>
<td>1965</td>
<td>7.2</td>
<td>6.5</td>
<td>7.1</td>
<td>6.4</td>
</tr>
<tr>
<td>1966</td>
<td>7.5</td>
<td>8.0</td>
<td>7.6</td>
<td>6.0</td>
</tr>
</tbody>
</table>

* Annual average of quarterly data
b Data for all manufacturing corporations with assets of $10 million or more.


parent or consistent patterns of divergence exist between the two series over the period in question. The average rate of return for "large acquired" companies was higher than that for "all" corporations over some periods, and lower in others. This is clearly the case for firms with assets of $100 million or less. However, the two series tend to diverge somewhat in those firms with assets of more than $100 million. This difference is reflected in the profit data for all corporations with assets of $10 million or more. Fragmentary data for 1967 and 1968 show that the difference between these two series has been almost eliminated.

The data presented in this section have provided us with certain insights into the profitability of large acquired companies compared with that
of all corporations. The data show that the rate of profit earned by large acquired companies in the year prior to acquisition was about equal to that for all large manufacturing corporations. The FTC Report indicates that the average rate of return on equity after taxes over the past 15 years was about 10 percent. The data contained in Table V show the average rate of profit for the firms included in this study was about the same. In the same context, the data in Table VII indicate that the rate of return earned by large acquired companies prior to acquisition was roughly the same as others of the same size.

The most important of these comparisons is that contained in Table VI. These data show that conglomerate mergers seem to involve companies with higher levels of profitability than those involved in other types of mergers. Thus the argument that some make (that conglomerate mergers probably involve a different set of corporate goals, i.e., diversification and the acquisition of strong profit centers) seems to be verified. The data do show that, on the average, conglomerate mergers involved more profitable companies.

IV. GROWTH CHARACTERISTICS

The data presented in the preceding section may not, by themselves, alter the position held by those who view mergers as an alternative to bankruptcy. Despite the fact that only 5 percent of the large-acquired finns lost money, the argument may still be made that the profits of the acquired companies, although positive, may well have been declining in the period immediately prior to their acquisition. Therefore, any reasonable analysis must look not only at the rate of profit but also at the trend in the level of profits of the acquired companies. In other words, the analysis should include attention to changes in the level of corporate profits.

At best, this involves a number of factors which are difficult to separate. Changes in the level of profitability alone may not provide an unambiguous indicator of the viability of a corporation. For example, a decline in the profitability of a company in the period immediately prior to acquisition may simply mirror changes which are occurring throughout a given industry. The problem is further complicated in this case, since the mergers under examination occurred over a rather long (20 years) time-span. Despite the possible magnitude of errors introduced by these and other problems, I have calculated and included data showing the rate of return earned by this group of large acquired companies over the three years prior to their acquisition. These data show the rate of return earned by the large acquired companies, by asset-size class. The rate of profit measure used in this analysis is corporate profit, after taxes, as a percent of total assets.

These data show that the firms in the two smallest asset-size classes experienced slight decreases in their average level of profits. On the other hand, the acquired firms with assets of $50 million or more showed, on the average,
TABLE VIII

RATE OF PROFIT EARNED BY LARGE ACQUIRED MANUFACTURING CORPORATIONS IN SELECTED YEARS PRIOR TO THEIR ACQUISITION: 1949-1968, BY ASSET-SIZE CLASS
(profits after taxes as a percent of assets)

<table>
<thead>
<tr>
<th>Asset-Size Class</th>
<th>Profit Rate Prior to Acquisition</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Third Year</td>
</tr>
<tr>
<td>(Millions)</td>
<td></td>
</tr>
<tr>
<td>$10-25</td>
<td>5.9</td>
</tr>
<tr>
<td>25-50</td>
<td>5.8</td>
</tr>
<tr>
<td>50-100</td>
<td>6.0</td>
</tr>
<tr>
<td>100-250</td>
<td>4.6</td>
</tr>
<tr>
<td>250 &amp; over</td>
<td>2.8</td>
</tr>
</tbody>
</table>

SOURCE: FTC; Moody's Industrial Manuals, various issues; company annual reports.

increases in their profit rates. Looking at the total number of firms involved in this analysis, it does not appear that they have suffered any observable decline in their rate of profitability over the three-year period immediately prior to their acquisition. In other words, imminent disaster does not appear to have been a problem for these companies.

Two additional data sets will complete this analysis of pre-merger growth trends of large manufacturing corporations. The first of these (Table IX and Figure 2) looks at the growth in the absolute level of profits of acquired companies over the five years prior to their acquisition, by type of merger. The second set (Table X and Figure 3) contain similar material, but for asset growth over the same period. These are also subdivided by type of merger. These figures are compared with the average rate of corporate asset growth of manufacturing corporations over the period 1950-1968.

The data in Table IX and Figure 2 show, for example, that about 34.9 percent of the large acquired firms experienced a reduction in the absolute level of their profits. Approximately the same share (34.6 percent) showed increases of 51 percent or more. Nine percent of the firms experienced no

TABLE IX

PRE-MERGER PROFIT GROWTH OF LARGE MANUFACTURING COMPANIES,
by Type of Merger: 1948-1968
(percent of merger of each type)

<table>
<thead>
<tr>
<th>Percent of Change</th>
<th>Horizontal</th>
<th>Vertical</th>
<th>Conglomerate</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loss</td>
<td>8.5</td>
<td>8.5</td>
<td>7.6</td>
<td>7.3</td>
</tr>
<tr>
<td>Decline</td>
<td>4.19</td>
<td>27.9</td>
<td>24.3</td>
<td>27.6</td>
</tr>
<tr>
<td>No Change</td>
<td>4.3</td>
<td>11.6</td>
<td>9.8</td>
<td>9.0</td>
</tr>
<tr>
<td>+1 to +50</td>
<td>24.8</td>
<td>25.6</td>
<td>20.2</td>
<td>21.5</td>
</tr>
<tr>
<td>+51 to +150</td>
<td>12.8</td>
<td>19.8</td>
<td>25.2</td>
<td>22.5</td>
</tr>
<tr>
<td>+151 &amp; more</td>
<td>7.7</td>
<td>11.6</td>
<td>12.9</td>
<td>12.1</td>
</tr>
</tbody>
</table>

a Firms included in this class showed losses either the last year or in both years.
b Profits of firms included in this class declined over the period but were positive.
SOURCE: FTC; Moody's Industrial Manuals, various issues; company annual reports.
This examination of changes in the absolute level of profits tends to highlight the differences which exist between the three different types of mergers under analysis. By far, the worst profit performance experience is that shown for firms involved in horizontal mergers. Slightly more than 50 percent of these firms experienced either losses or absolute declines in their dollar level of profits over the five year period preceding their acquisition. The median firm, in terms of loss or gain, experienced a reduction of 5 percent in the absolute level of its profits over the five years prior to its acquisition.

Firms involved in vertical mergers show a somewhat better experience with respect to the dollar level of their profits. Only 31.4 percent of these firms, compared with 50.4 percent of the horizontal acquisitions, showed declines over this period. On the other hand, almost 60 percent of these firms showed increases in amount of profit earned over the same period. The
difference between the pre-merger performances of the large vertical and horizontal mergers is typified by the profit level change experienced by the median company in each group. While the median firm involved in horizontal mergers exhibited a decline in its profit level of about 5 percent, the median firm involved in vertical mergers showed an increase of about 18 percent.

The conglomerate mergers involved companies with somewhat better profit experiences than either the horizontal or vertical ones. This shows up quite clearly in the change in absolute level of profit experienced by the median firm. These firms experienced an increase of about 25 percent in the level of their profits over the five years prior to acquisition. Converting these to annual average changes in profit level, the data show the annual increase of 5 percent for conglomerate mergers and 3.6 percent for vertical mergers compared with a loss of 1 percent in the case of the horizontal mergers.

Looking at the profit experience of all large acquired companies, it is clear that over 93 percent of them made profits throughout the five years prior to their acquisition. While the profits for some (34.5 percent) declined, or at best, remained constant, one-half or more of them showed an increase of 17 percent or more. This again does not seem to describe a group of dying or declining firms. Most important, however, from our point of view, is the markedly superior performance of the conglomerate acquisition.

What kind of an asset growth picture is shown for these companies? The data indicate that, on the average, the acquired firms under examination experienced healthy increases in corporate assets over the five years prior to their acquisition (see Table X). This is in marked contrast to the profit growth figures described above. For example, almost 35 percent of the acquired firms showed lowering of profits over the five years prior to acquisition, but only 10 percent showed a reduction in their dollar asset values. Here too, the differences in the patterns of change are minimal.

The major difference between the horizontal and conglomerate merger

<table>
<thead>
<tr>
<th>Percent of Change</th>
<th>Horizontal</th>
<th>Vertical</th>
<th>Conglomerate</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>Declinea</td>
<td>13.1</td>
<td>10.4</td>
<td>10.0</td>
<td>10.5</td>
</tr>
<tr>
<td>No change</td>
<td>3.4</td>
<td>7.0</td>
<td>5.7</td>
<td>5.4</td>
</tr>
<tr>
<td>+1 to +50</td>
<td>62.4</td>
<td>59.4</td>
<td>52.1</td>
<td>54.6</td>
</tr>
<tr>
<td>+51 to +150</td>
<td>19.7</td>
<td>19.8</td>
<td>28.3</td>
<td>25.8</td>
</tr>
<tr>
<td>+151 &amp; more</td>
<td>1.7</td>
<td>3.5</td>
<td>4.3</td>
<td>3.6</td>
</tr>
</tbody>
</table>

* Corporate assets of these companies declined over the five years prior to acquisition.

Note: Figures subject to rounding.

Source: FTC; Moody's Industrial Manuals, various issues; company annual reports.
groups is in the slightly larger number of firms in the latter class with profit increases of 51 percent or more—21.4 percent in the case of horizontal mergers compared with 32.6 percent for the conglomerates. The similarity between the groups is seen in the figures showing the change in level of assets of the median firm in each class. The median firm in the horizontal merger group showed an increase in assets of 29 percent over the five years prior to acquisition, compared with 28 percent for the vertical and 35 percent for the conglomerate.

FIGURE 3
FIVE YEAR PRE-MERGER ASSET GROWTH EXPERIENCE OF LARGE ACQUIRED CORPORATIONS, BY TYPE OF MERGER: 1948-1968

Percent of Firms

<table>
<thead>
<tr>
<th>Type of Merger</th>
<th>Change in Level of Assets of Median Firm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horizontal</td>
<td>+29%</td>
</tr>
<tr>
<td>Vertical</td>
<td>+28%</td>
</tr>
<tr>
<td>Conglomerate</td>
<td>+35%</td>
</tr>
<tr>
<td>All</td>
<td>+32%</td>
</tr>
</tbody>
</table>

TREND IN ASSETS

SOURCE: Table X.

How well do the median growth rates shown in Figure 3 compare with those for all manufacturing corporations? To answer this, average five-year growth rates were computed for all United States manufacturing corporations between 1950 and 1968. These showed that the assets of all manu-

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32 FTC-SEC, QUARTERLY FINANCIAL REPORTS and IRS, STATISTICS OF INCOME were utilized.
facturing corporations increased, on the average, 27.9 percent. This is almost identical with the growth rates computed for the firms in the horizontal and vertical groups, and only slightly less than those in the conglomerate group.

V. CONCLUSION

At the outset, the goals established for this paper were defined in rather limited terms. To borrow a phrase from Mr. Justice Holmes, it is intended as an "investigation of the obscure." The knowledge gained from this analysis will not provide a full or complete explanation of the economic consequences of conglomerate mergers. Such an achievement may be possible, but not with the present state of knowledge regarding the pre- and post-merger conditions of both the acquired and acquiring companies.

On the other hand, it may assist in analyzing the validity of a number of allegations that have been made with respect to (1) the probable viability of corporations in the absence of being acquired, and (2) the short- and long-term goals of various firms which engage in merger activity. This paper, and the information contained in it, may serve to provide some insights into these questions. More important, however, is the possibility that, as a result of the presentation of these data, some present misconceptions and partial truths may be effectively countered.

We have pointed out that some economists and others have argued that merger may well be a welcome alternative (from an efficiency point of view in the transfer of corporate assets) to bankruptcy, with its attendant disintegration of corporate assets and identity. If these arguments are taken seriously, the acquiring firms might well be awarded a medal of merit for their service to the economy. A careful examination of the facts, however, showed that less than 10 percent of the large corporations which have been acquired over the past 20 years have been at "death's door."

To be sure, some companies were losing money and others were earning rather low rates of return at the time of their acquisition. At the other extreme, however, almost 50 percent of them were earning a rate of return of 10 percent or more after taxes. These are not charity cases. Not only were these firms profitable in the year prior to acquisition, but the majority of them had experienced increases in their absolute dollar levels of profits and assets in the five years prior to their acquisition. As a group, they enjoyed a rate of return about equal to that being earned by all corporations over the period under examination. Moreover, they had experienced increases in their assets which were slightly greater than the average for all manufacturing corporations between 1950 and 1968.

Have the large mergers we have witnessed over the past 20 years represented a response to actual or impending bankruptcy? The facts show that, with major exceptions, the answer is clear. NO!

There remains one basic question, therefore. Do the firms which have been involved in large conglomerate mergers have characteristics which set

33 See note 17 supra.
them apart from firms which become a part of vertical and horizontal mergers? Again, the data presented here seem to provide a clear answer. YES! In addition to the fact that conglomerate mergers basically involve companies which operate in different markets (geographic or product), the firms acquired seem to show, on the average, significantly different financial and pre-merger growth characteristics.

First, firms involved in conglomerate mergers seem to have earned higher rates of return than did the others. As a group, conglomerate firms earned a rate of return on stockholder's equity after taxes of 10.2 percent, compared with 8.8 percent in the case of the horizontal mergers (a 16 percent differential).

Second, firms involved in conglomerate mergers showed an increase of about 25 percent in the absolute level of profits earned over the five years prior to their acquisition. Horizontal mergers, on the other hand, showed an average decline of about 5 percent over the same period.

Third, relatively small differences existed between the rates of asset growth of firms in these three merger groups. Horizontal mergers involved firms whose assets had increased by 29 percent over the five years prior to acquisition, while those of conglomerate mergers increased by 35 percent.

However, the contrast between the profit level changes and those for assets provide an interesting commentary on the basic differences between the horizontal and conglomerate mergers. Given the fact that their growth rates, in terms of corporate assets, were approximately the same, the profit level increases become quite significant. These data show the basic differences in the companies that are acquired, and a picture of the typical firm which is acquired as a result of a conglomerate merger begins to come clear. It is a firm (1) with a higher rate of profit than the average of other large acquired companies; (2) which has experienced a slightly higher rate of increase in its rate of asset growth than other acquired companies and all manufacturing companies over the five years prior to its acquisition; and (3) which has experienced substantially higher rates of increase in the level of its profits than other large acquired companies.

On the average, conglomerate mergers do represent the disappearance of strong and financially viable manufacturing corporations. They are corporations which, in the absence of merger activity, economic theory suggests would be the most logical future candidates to challenge the entrenched position of the still larger corporations. Unfortunately, they are being acquired by the larger companies today. The Clayton Act, as revised, speaks in terms of a lessening of potential competition. There can be no doubt that the elimination of almost 1,300 large manufacturing corporations, the bulk of them strong and financially viable corporations, constitutes a long step along that road.