

## CHAPTER 13

# Cyclical Aspects of Incorporations and the Formation of New Business Enterprises

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THE first purpose of this paper is to summarize the principal evidence and findings on the cyclical behavior of new business incorporations. The most comprehensive treatment of the history and economics of new incorporations is that by G. Heberton Evans, Jr., whose study is based directly on the long chartering records of several states.<sup>1</sup> We shall recapitulate briefly the main results of Evans' exploration insofar as they concern the relation between incorporations and business cycles, and add whatever supplementary lessons can be derived from data on the number of charters granted by each of the forty-eight states since 1946 (compiled and published by Dun and Bradstreet, Inc.).

The second of our aims is to make some contribution to the understanding of why total incorporations behave as they do. For this, we shall need to consider the economic nature and significance of an incorporation. Charters are granted in, or reflect, a variety of business situations; the impact upon the economy of some incorporations is strong, that of others is negligible. The dearth of quantitative information on the distribution of incorporations by categories that differ greatly in their economic significance is probably the most serious single source of difficulty for students of the cyclical as well as other economic aspects of incorporations. By a comparative analysis of the recent figures on new incorporations and new business firms, an attempt will be made to form estimates of some of the above categories in order to evaluate their importance and mutual relations.

### *Incorporations and Business Cycles*

#### THE DATA

Several series on incorporations covering shorter periods and fewer states had been published before Evans presented his long and comprehensive compilation, but some of them have considerable shortcomings.<sup>2</sup>

NOTE: I am grateful to Betty C. Churchill of the Office of Business Economics, U.S. Department of Commerce, for aid in collecting and interpreting data on business turnover. Helpful comments were also received from Phillip Cagan and Anna Schwartz. Geoffrey H. Moore did much to improve this paper, and my debt to him is especially great. I wish to acknowledge also the statistical assistance of Nadeschda Bohsack and Leopold Koziembrodzki.

<sup>1</sup> *Business Incorporations in the United States, 1800-1943*, New York, NBER, 1948.

<sup>2</sup> Here, for brief reference, is a list of sources for these statistics, with some annotations:  
1. Roland P. Falkner, *Statistics of Private Corporations*, Publications of the American

CYCLICAL BEHAVIOR OF TYPES OF LEADING INDICATORS

Evans' primary data record both the number and the capital stock of corporations created under the special and general laws of sixteen states. Each of these state series extends over some period between 1800 and 1943, but they vary greatly in length, the shortest one covering six and the longest eighty-one years. All the basic long-period data are monthly, but the six early series on special charters and the four relatively short segments based on general charters are annual.<sup>3</sup>

To obtain a continuous and comprehensive series of incorporations in the United States, covering as long a period as possible and reflecting with maximum attainable fidelity the cyclical behavior of incorporations, Evans constructed a monthly index from his state series by means of simple aggregation. For each successive month of the period 1860-1941, a total of incorporations was taken for all the states covered at the time, except that some minor portions of the available material were not used because they would have had to be included or excluded near a peak or trough, thereby affecting the timing of the turns. The resulting figures were seasonally adjusted by the ratio-to-moving-average method, spliced by using the overlaps of sections including different groups of states, and converted

Statistical Association, II, n.s., No. 10 (June 1890), pp. 50-67. No index computed. Figures for calendar years or for fiscal years (which vary from state to state). Data on numbers cover period 1820-89 for thirteen states (Ark., Colo., Conn., Me., Mass., Minn., Miss., Mo., Neb., Ohio, S.C., Tex., and Wis.).

2. Two series published by the *New York Journal of Commerce and Commercial Bulletin*: authorized capital stock of companies chartered in Eastern states with \$1,000,000 or more of stock (presented for 1901-19, in monthly and quarterly form, in the *Review of Economic Statistics*, Preliminary Volume I, 1919, pp. 148-149, 172-173, 198); and a more comprehensive capital stock series covering companies chartered with \$100,000 or more of stock (presented for 1907-27 on a calendar year basis in the *Statistical Abstract of the United States*, 1928, U.S. Department of Commerce, Washington, D.C., p. 309).

The usefulness of these two series is impaired by the ambiguity as to which states they covered. The "Eastern states" are identified as these seven: Conn., Del., Mass., Me., N.J., N.Y., and Penn.; but sometimes Rhode Island is also included and at other times even "a few of the largest companies incorporated in other states" are included (see *Review of Economic Statistics*, Preliminary Volume I, 1919, pp. 148-149).

3. A series on the aggregate number of charters granted by four states—Del., Ill., Me., and N.Y.—compiled by the Corporation Trust Company and published monthly in the *Survey of Current Business* for the period 1925-46. For the data, see the following issues of the *Survey*: Oct. 1947, March 1946, March 1945, April 1944, and March 1943, as well as the *1942 Supplement*, p. 73.

<sup>3</sup> Following is a list of these series, identifying the states and the periods covered (*n* in parentheses signifies a series on the number and *c* a series on the capital stock of incorporations; all series are monthly, except those marked *A*, which are annual):

Ariz. (*n*), 1919-24; Colo. (*n,c*), 1890-1908; Conn. (*n*), 1837-70, 1880-1932; Del. (*n*), 1899-1914 (*A*), and (*n,c*), 1916-43; Fla. (*n,c*), 1901-22; Ill. (*n,c*), 1896-1918, and (*n*), 1925-43; La. (*n*), 1937-43; Me. (*n*), 1820-91 (*A*), 1870-1943; Md. (*n*), 1800-52 (*A*), and (*n,c*), 1870-1939; Mass. (*n,c*), 1851-1921; N.J. (*n*), 1800-75 (*A*), and (*n,c*), 1846-1918; N.Y. (*n*), 1800-45, 1901-23 (*A*), and (*n*) 1924-43; Ohio (*n*), 1803-51 (*A*), and (*n*), 1855-1936, and (*c*), 1871-1919; Penn. (*n*), 1800-60, 1875-86 (*A*), and (*n,c*), 1887-1921; Tex. (*n,c*), 1872-1920; and Va. (*n,c*), 1903-18.

to an index based on the monthly average of the original data for 1925.<sup>4</sup>

The current Dun and Bradstreet data on new business incorporations are available monthly for the forty-eight states beginning in 1946.<sup>5</sup> They represent the total number of stock corporations issued charters under the general laws of the various states, include corporate transfers of all kinds, and are subclassified only by states.

#### TIMING AT BUSINESS CYCLE TURNS, 1860–1938

Data on the number of new incorporations have often been referred to as an index of business conditions in either the economy as a whole or certain specific industries or geographic areas. In the United States, most of the comments supporting the use of these figures as a good business barometer have come from officials of the state incorporating agencies. These were largely suggestions that a rise in the number of charters granted usually precedes, and hence can be taken to indicate, a business revival. Statements to the effect that a downturn in incorporations is associated with a business recession were far less numerous (see Evans, *Business Incorporations*, p. 75). In Great Britain, however, a lead of incorporations at the peak in the trade cycle has been asserted by no lesser an authority than Alfred Marshall;<sup>6</sup> and the new joint-stock registrations were suggested as a leading indicator of both recessions and revivals by D. H. MacGregor on the basis of annual data for 1865–1910.<sup>7</sup>

<sup>4</sup> For a detailed description of this index, see Evans, *Business Incorporations*, Chapter 9. A second index, based on the same collection of monthly state series but computed as a simple median of relatives, is also presented (*ibid.*). It is characterized by Evans as a "general purpose index," which is useful for checking the results obtained from the aggregate index (such checks point to a substantial agreement between both constructs). However, for cyclical analysis at least, the aggregate index is believed to be the superior one of the two.

<sup>5</sup> Figures for forty-seven states (excluding Louisiana) are available for the last half of 1945. The data appear monthly in *Dun's Statistical Review*; the totals for all states are reprinted regularly in the *Survey of Current Business*.

<sup>6</sup> *Industry and Trade*, London, 1919, p. 334.

<sup>7</sup> *Enterprise, Purpose and Profit*, Oxford, 1934. According to an analysis of monthly data from the early files of the National Bureau's Business Cycle unit, the number of joint-stock companies registered in England has led at each but one of the six revivals between 1858 and 1895. The average of these timing comparisons is a lead of 8.2 months, the average deviation from it is 9.1 months. The timing of the registrations at the six recessions between 1860 and 1900 lacked regularity. Among these comparisons, there were three lags and three leads, and the former outweighed the latter in the average. These findings are based on monthly figures computed by the National Bureau from cumulative totals published in Great Britain, *Parliamentary Papers*, 1864, Vol. LVIII, and successive years, "Returns Relating to Joint-Stock Companies, etc." (the series ends in 1900 because the lists of new companies for the later years are arranged alphabetically, not chronologically as they were before, so that it would have been extremely laborious to compile monthly totals for the more recent period). The reference scale used in the underlying analysis consists of the dates of business cycle turns in Great Britain as identified by the National Bureau (see Burns and Mitchell, *Measuring Business Cycles*, p. 79).

CYCLICAL BEHAVIOR OF TYPES OF LEADING INDICATORS

A systematic treatment of the relation between incorporations and business cycles, in contrast to the more impressionistic approach, could not be undertaken until a substantial amount of data on the number of companies issued new charters had been assembled. Evans' monthly series on incorporations of individual states provide rich materials on which to base a cyclical analysis. Their movements clearly show a strong tendency for upturns in incorporations to precede the troughs in general business. On the other hand, the behavior of these series at peaks was much less consistent. In some states, incorporations lagged almost as often as they led at business cycle recessions, at least in the earlier decades.

An inspection of the state series on incorporations in the major industrial categories led Evans to infer that the tendency of incorporations to reach troughs before business in general was stronger in states with "liberal" chartering laws and policies (such as New Jersey) than in states with a more restrictive approach to granting charters (such as Ohio and Pennsylvania). Another finding here is that incorporations of public utilities have been more sensitive as indicators of general business activity than the incorporations of manufacturing concerns, and we are reminded of the particular importance in public utilities of capital and of the low pre-revival interest rates. Notwithstanding such differences, however, the characteristic of incorporations to turn upward earlier than business in general seems to have been common to states with different statutes and to various industrial divisions.<sup>8</sup>

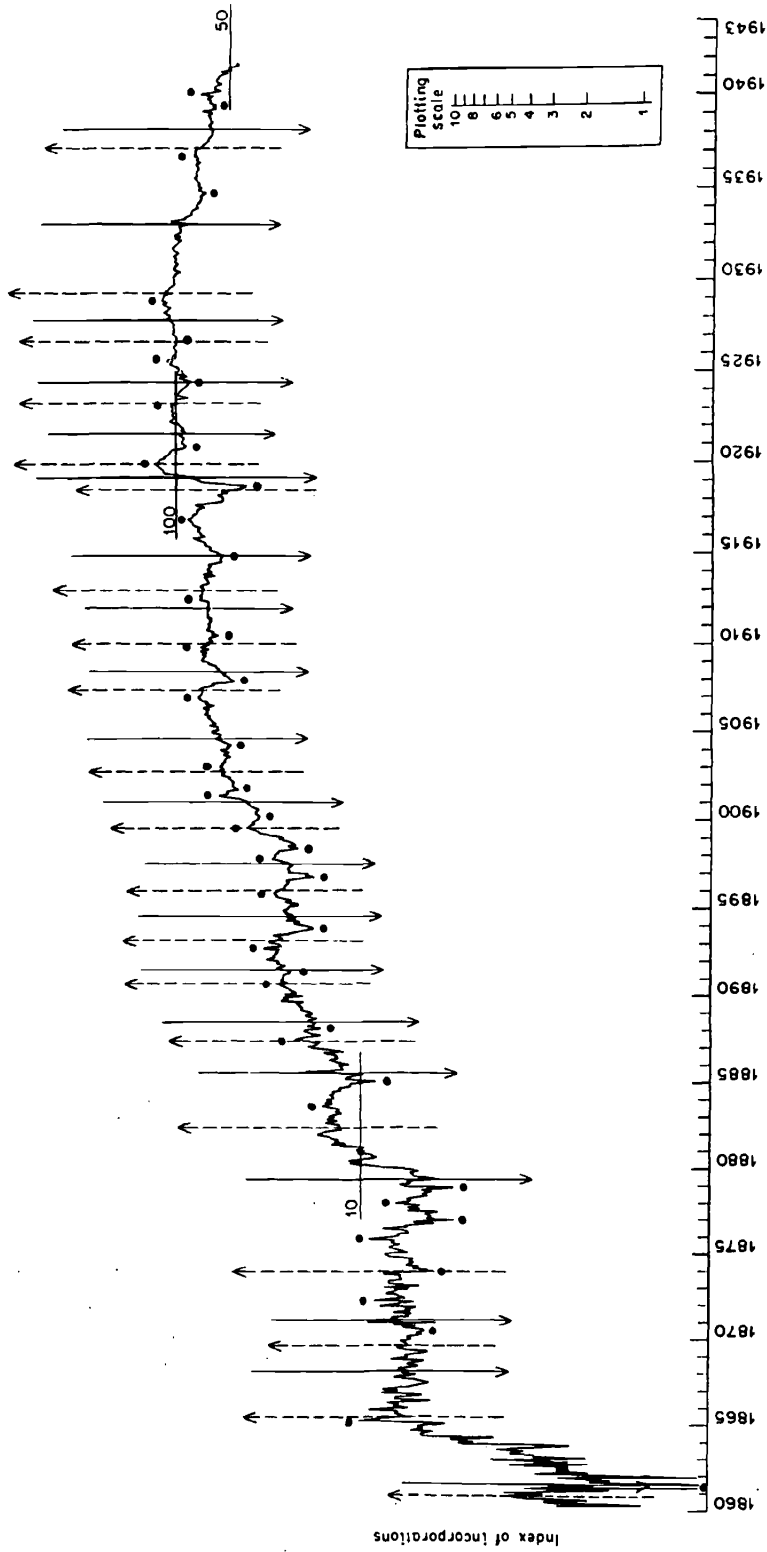
The cyclical timing of total incorporations can be described more precisely than that of the individual state series. Twenty-two complete "specific cycles" (counted from trough to trough) can be distinguished in this index between 1861 and 1939, two more than the number of business cycles in the same period according to the National Bureau's chronology (Chart 13.1). As shown in Table 13.1, turns in the index were matched with all but four of the forty peaks and troughs in the business cycles covered. When the resulting comparisons are distributed by type of timing (see the accompanying tabulation), the relative scarcity of lags and coincidences among them stands out clearly, as does the preponderance of leads.

	<i>All</i>		<i>Exact</i>		<i>Rough</i>
	<i>Comparisons</i>	<i>Leads</i>	<i>Coincidences</i>	<i>Lags</i>	<i>Coincidences</i>
At business cycle peaks	17	12	1	4	8
At business cycle troughs	19	15	1	3	4

The latter represent 71 and 79 per cent of the observations at peaks and troughs, respectively. "Rough" coincidences (defined to include the

<sup>8</sup> See Evans, *Business Incorporations*, p. 79 and Charts 22, 23, and 24.

**CHART 13.1**  
**Monthly Aggregate Index of Business Incorporations, 1860-1943**  
 (1925 = 100)



Solid vertical arrows indicate business cycle troughs; broken vertical arrows, business cycle peaks.  
 Data are seasonally adjusted.

Dots identify peaks and troughs of specific cycles.  
 SOURCE: Evans, *Business Incorporations in the United States, 1800-1943*, pp. 80-82.

CYCLICAL BEHAVIOR OF TYPES OF LEADING INDICATORS

TABLE 13.1

Timing of Total Incorporations at Business Cycle Turns, 1860-1938

<i>Lead (-) or Lag (+) at Business Cycle Peak</i>		<i>Lead (-) or Lag (+) at Business Cycle Trough</i>	
Reference Date	No. of Months	Reference Date	No. of Months
Oct. 1860	<sup>a</sup>	June 1861	+1
Apr. 1865	-2	Dec. 1867	<sup>b</sup>
June 1869	<sup>a</sup>	Dec. 1870	-8
Oct. 1873	<sup>a</sup>	Mar. 1879	-6
Mar. 1882	+15	May 1885	-6
Mar. 1887	+1	Apr. 1888	-4
July 1890	0	May 1891	-2
Jan. 1893	-5	June 1894	-8
Dec. 1895	-2	June 1897	-9
June 1899	+1	Dec. 1900	-10
Sept. 1902	+5	Aug. 1904	-4
May 1907	-4	June 1908	-6
Jan. 1910	-2	Jan. 1912	-18
Jan. 1913	-6	Dec. 1914	0
Aug. 1918	-19	Apr. 1919	-5
Jan. 1920	-1	July 1921	-6
May 1923	-1	July 1924	-1
Oct. 1926	-12	Nov. 1927	-11
June 1929	-5	Mar. 1933	+21
May 1937	-5	June 1938	+15

	Total Period Covered, 1861-1938 (17 peaks, 19 troughs)	First Subperiod, 1861-88 (3 peaks, 5 troughs)	Second Subperiod, 1888-1912 (7 peaks, 7 troughs)	Third Subperiod, 1912-38 (7 peaks, 7 troughs)
AVERAGE LEAD (-) OR LAG (+), IN MONTHS				
At business cycle peaks	-2.5	+4.7	-1.0	-7.0
At business cycle troughs	-3.5	-4.6	-8.1	+1.9
AVERAGE DEVIATION FROM THE AVERAGE LEAD OR LAG, IN MONTHS				
At business cycle peaks	4.6	6.9	2.6	4.9
At business cycle troughs	5.7	2.5	3.6	9.2

SOURCE: Evans, *Business Incorporations*, Table 41. Compare also App. B, series 7.3, which uses a revised business cycle chronology.

<sup>a</sup> No peak in the monthly aggregate index of incorporations was found to correspond with this business cycle peak.

<sup>b</sup> No trough in the monthly aggregate index of incorporations was found to correspond with this business cycle trough.

“exact” coincidences and leads and lags of one, two, and three months) account for eight, or somewhat less than half, of the peak comparisons, and four, or somewhat more than one-fifth, of the trough comparisons. They are, then, at either type of turn less frequent than the leads. On the average, peaks and troughs in total incorporations preceded the peaks and troughs in general business by 2.5 and 3.5 months, respectively. If we judge from the evidence for the entire period of nearly eight decades covered in Table 13.1, total incorporations have certainly tended to lead business recessions as well as revivals.<sup>9</sup>

When the history of incorporations from 1860 to 1938 is divided into three approximately equal subperiods, it is found that lapses from the pattern of early timing described above were very unequally distributed among these component intervals. Thus in 1860–88 peaks of incorporations showed little regularity in their timing relative to business recessions, lagging behind two and leading only one of them, but skipping three.<sup>10</sup> In 1888–1912, incorporations led at four, synchronized with one, and lagged at two business peaks; these comparisons, most of which qualify as rough coincidences, average a lead of merely one month. Only in the last subperiod, 1912–38, did the downturns in total incorporations lead cyclical recessions consistently, by seven months on the average. This evidence suggests a shift in the timing of the peak in charterings toward earlier stages of the business cycle. No comparable shift seems to have occurred in the timing at troughs, where incorporations were leading in 1861–88, and even more clearly in 1888–1912. But it ought to be noted that they lagged by conspicuously long intervals at the two troughs terminating the severe contractions of the thirties (whereas they led at the four preceding revivals of the subperiod 1912–38).<sup>11</sup>

Evans’ summary interpretation of the cyclical timing of total incorporations bears repeating:<sup>12</sup>

Since incorporations belong to the preparatory stage of enterprise, troughs in incorporations on the average lead troughs in business.

<sup>9</sup> The tendency to lead would appear to be stronger at revivals than at recessions, and Evans suggests a plausible explanation for such a difference (see quotation below). But it must be noted that the difference between the mean lead of incorporations at peaks and the mean lead of incorporations at troughs of business cycles is statistically not significant at the 0.05 level and could thus be due to chance.

<sup>10</sup> See the summary at the bottom of Table 13.1 for measures of the average timing of incorporations in this and the other subperiods.

<sup>11</sup> In terms of the average “reference cycle patterns” of the National Bureau, in which business cycles are divided into nine stages (see Burns and Mitchell, *Measuring Business Cycles*, p. 29), the peak of incorporations shifted from the first third of the business contraction (stage VI) in 1861–88 to the stage centered on the business cycle peak (V) in 1888–1912 and again to the middle third of the business expansion (III) in 1912–38. The trough of incorporations shifted only from the last third of the business contraction (VIII) in the subperiods 1861–88 and 1888–1912 to the middle third of the business contraction (VII) in 1912–38.

<sup>12</sup> *Business Incorporations*, p. 88.

## CYCLICAL BEHAVIOR OF TYPES OF LEADING INDICATORS

Peaks in incorporations also lead peaks in business, but by a smaller average interval and less regularly, perhaps because, even in the face of slackening business conditions, many promoting groups whose organizational work is at an advanced stage will complete the legal procedures and incorporate their enterprises. Their only additional costs would probably be state incorporation fees. Once they had charters, the organizers would be ready to float securities and begin operations if the downturn in business proved temporary. One might almost have been led to predict that peaks in incorporations would follow peaks in business. Promoters, however, seem to sense the approach of a recession, or at least grow wary, and curtail incorporating activities while prosperity still has a high degree of momentum. Their bearishness doubtless contributes toward bringing on a recession. On the other hand, their preparations for a revival precede an upturn and most certainly contribute to the spirit of optimism that characterizes expansions.

### RECENT DEVELOPMENTS

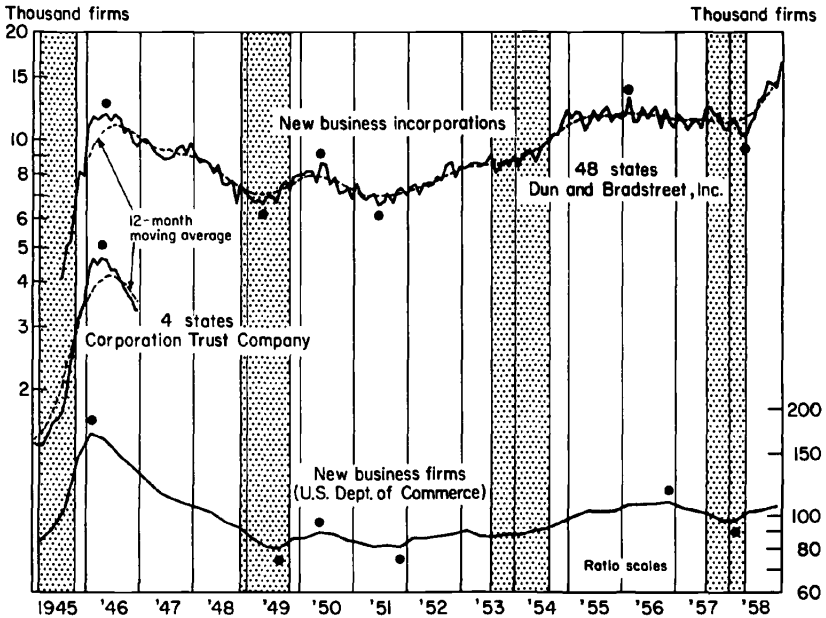
The outbreak of World War II accelerated the downward drift of new incorporations, which had been briefly interrupted by a mild and wavering increase in the fall and winter of 1939-40. The reasons for the wartime downswing in the number of charterings are fairly obvious. The reduction or elimination of the militarily nonessential segments of the economy (which were, characteristically, small business industries such as retailing, construction, or services), the drafting of men into the armed forces, the controls of material supplies and prices—all these and related factors combined to reduce drastically the business population and retard the business turnover. The wartime slump is evident in the Corporation Trust Company figures on the number of charters granted by four states, which is the series that bridges the 1943-45 gap between Evans' data and the current Dun and Bradstreet figures. This series reached a deep trough late in 1942 and, while rising haltingly, remained low through the rest of the war period.

It was only after the end of hostilities in Europe that the C.T.C. series ceased wavering, but then it moved up with unprecedented rapidity. By the end of 1945, it was already far above any level it had attained since its beginning in 1925. Soon thereafter, however, it flattened out and turned down (in April 1946). These movements are closely reproduced on a higher level by the comprehensive Dun and Bradstreet series which reached its peak in May (see Chart 13.2). Thus the mild business contraction of February-October 1945, which was due to difficulties in an early phase of reconversion from war to peace, was precisely the period in which incorporating activities expanded most vigorously. The gradual

PART TWO

CHART 13.2

Number of New Firms and New Business Incorporations, 1945–58



Shaded areas represent business contractions; unshaded areas, expansions.  
 Data are seasonally adjusted.  
 Dots identify peaks and troughs of specific cycles.

decline in the number of charterings after May 1946 continued throughout the rest of the business expansion and beyond the November 1948 business cycle peak. In short, the behavior of new business incorporations in 1945–48 reflected specific postwar readjustments, not the cyclical phases through which most sectors of the economy were moving during the same period.

The type of timing that had been prevalent in the previous history of incorporations seemed restored in 1949, when the Dun and Bradstreet series turned up in April, six months before the business cycle trough in October. The first year of the Korean War witnessed a moderate contraction of the number of charterings, which began in May 1950 and ended in June 1951. This agrees with the behavior of incorporations during each of the world wars, though not with their history during the Civil War, which was an early period of rapid growth for the country's corporate population. It should be noted, however, that the analogy made here with the major wars of the past is rather weak. The Korean War did not require direct government controls comparable in scope and

effect to the priority regulations and restrictions on capital issues imposed during the first world war or to the various far-reaching controls introduced during the second. The outbreak of fighting and the subsequent uncertainties probably contributed to the decline in incorporating activity (as well as in total new business formation) in the second half of 1950.<sup>13</sup> The contraction in the volume of new orders in the first three quarters of 1951 may have had some further discouraging effects.<sup>14</sup> In short, although the business turnover variables under consideration may have moved in the same direction in the early phases of both the Korean conflict and the American involvement in World War II, the reasons why they did so were quite different for the two periods. Also, the influence upon these variables of the Korean developments was much weaker than the impact of the events of 1941-43. The number of incorporations declined 37 per cent in 1941-43, and only 10 per cent in 1950-51.<sup>15</sup>

The expansion of incorporations that began in 1951 continued throughout the business contraction July 1953-August 1954, though with some retardation and a brief decline in 1953 (Chart 13.2). After the pace of this expansion quickened in 1954, a second retardation set in, which can be seen clearly in the approximately horizontal trend of incorporations during 1955. The peak marking the end of this long rise came in February 1956, thus leading the cyclical downturn in general business by the unusually long interval of seventeen months. However, the series really underwent a very gradual transition from a mild increase to a mild decrease, and the peak date chosen merely represents the highest point located approximately in the center of this turning zone. The subsequent decline accelerated only in the latter half of 1957 and ended abruptly in April 1958, the month selected as the trough in aggregate economic activity. From this relatively late start there followed immediately a sharp expansion in new business incorporations—sharper than would

<sup>13</sup> Cf. *Survey of Current Business*, February 1951, p. 31.

<sup>14</sup> A close causal relation between the cyclical reversals in new orders and those in new incorporations is postulated by Charles F. Roos in "Survey of Economic Forecasting Techniques," *Econometrica*, October 1955, p. 376. This entails the expectation that new orders would typically lead the number of charters granted at both peaks and troughs. Historical averages of the timing comparisons for the two business indicators are not inconsistent with this expectation, but reverse sequences (in which incorporations move earlier) will be found in specific turning zones, e.g. in the Korean period now under discussion.

<sup>15</sup> This assumes sufficient comparability, for such amplitude measurements, between the Corporation Trust Company series used for the World War II years and the comprehensive Dun and Bradstreet series used for the Korean period, but little error is likely to result from this assumption. Consistent evidence on the differential impact of the two wars on new business formation is provided by the Commerce Department estimates, which show that the total number of corporate and noncorporate business births contracted by nearly one half in 1941-43, but only by about 6 per cent in 1950-51 (based on revised estimates taken from the *Survey of Current Business*, January 1954, p. 13, and May 1959, p. 18).

PART TWO

have been expected from past cyclical experience. (This is one of the matters that will be taken up later for special explanation.)

In concluding this review of the recent behavior of new incorporations, it is well to caution against using the series as a basis for more or stronger inferences than it can bear. The association between broad movements in number of charterings and in business cycles was certainly far from close in the period after World War II. Suffice it to recall that, for the entire fourteen-year period under consideration, only four of the six specific cycle turns in incorporations could be matched with business cycle turns (and there were eight of the latter between 1945 and 1958).<sup>16</sup>

Yet, in a properly balanced judgment, it would be wrong to conclude that new business incorporations have no value as an indicator of cyclical revivals and recessions. For this short record largely reflects certain special conditions prevailing in the recent postwar period. The business population had to recoup its great wartime losses and adapt itself in structure and volume to the new peacetime needs. Business contractions in 1945 and 1953-54 were among the very mildest on record, and that in 1948-49 (whose trough did have a counterpart in an earlier upturn of incorporations) was just a shade stronger and followed by a vigorous expansion. The more severe business contraction of 1957-58 was preceded and accompanied by a downward movement in incorporations that became markedly steeper as the recession became general. Had the cycles in business been more pronounced and the influence of war and reconversion developments weaker, the reaction of incorporations might have accorded better with the solidly established historical pattern of chartering as a sensitive cyclical indicator.

*Incorporations and Business Births and Transfers*

ECONOMIC SIGNIFICANCE OF AN INCORPORATION

An increase in the number of charters newly granted for business purposes always involves one or more of the following developments: (1) establishment of new business corporations; (2) enlargement of old

<sup>16</sup> For convenient reference, both the business cycle and the specific cycle dates are brought together in the accompanying tabulation, in which asterisks identify the matched turns:

<i>Business Cycle</i>		<i>Incorporation Cycle</i>		<i>Lead (-) or Lag (+)</i> <i>(in Months) of</i> <i>Incorporations at</i> <i>Business Cycle</i>	
<i>Peak</i>	<i>Trough</i>	<i>Peak</i>	<i>Trough</i>	<i>Peak</i>	<i>Trough</i>
Feb. 1945	Oct. 1945	May 1946*	April 1949*	-30	-6
Nov. 1948*	Oct. 1949*	May 1950	June 1951		
July 1953	Aug. 1954	Feb. 1956*	April 1958*	-17	0
July 1957*	April 1958*				

ones; (3) reorganization of existing companies not accompanied by an extension of their facilities; and (4) adoption of the corporate form by previously unincorporated firms, with or without a concomitant expansion. Available data do not permit a breakdown of numbers by the above categories. They merely register the algebraic totals of such numbers in each month covered. Obviously a change in these figures over any given period may conceal divergent trends in new corporate creations, expansions, reorganizations, and conversions, whether these movements add up to a net increase or to a net decline in the incorporations aggregate.

Now a new corporate venture reflecting long-range plans of promoters and opening up an additional outlet for capital is clearly very different in its economic significance from a short-lived "legal person" created, perhaps, to facilitate a single financial transaction. The stimulative effects on business will always be more lasting and, as a rule, much stronger for incorporations of the former than for those of the latter kind. Furthermore, corporate starts involving investment of capital in productive facilities would be expected to respond positively to fluctuations in general business conditions, whereas incorporations reflecting merely isolated operations or manipulations may perhaps so respond but need not do so very regularly or strongly. Their cyclical sensitivity could well be low and its manifestations warped by various random or episodic influences.

The other economic situations that occasion business incorporations are hardly less diversified. Some of the new charters granted by a state during a certain period are probably taken out by companies that have progressively outgrown their initial constitution as small units; others reflect mergers by consolidation or acquisition; still others, transfers from another state or from the noncorporate sector. One thing, again, is sure about these categories: they vary considerably in importance for the course of business.<sup>17</sup> Little is known about their respective modes of cyclical behavior, but it stands to reason that specific factors, not necessarily closely or directly associated with business cycles, should be active determinants of the course of reorganizations, mergers, transfers, and conversions. Thus state rivalry for the business of granting charters must be seen as the major force making for interstate transfers of corporations. Legislative measures changing the relative position of corporate vs. noncorporate firms nationally would be expected to influence the number of conversions. The history of mergers, in which longer waves

<sup>17</sup> However, it would usually be hard to rank them according to this criterion. Interstate transfers of corporations are probably the least important class from the viewpoint of national business developments. Transfers from the noncorporate sector, on the other hand, may carry considerable import in that they tend to spread the opportunities to invest among more people. Incorporations associated with reorganizations and expansions of companies may prove very informative as indicators of developing demands for capital, but may just as easily have only documentary value, as reference to past business achievements.

## PART TWO

dominate fluctuations whose duration is of the order of business cycles, suggests that specific legal, political, and technological developments were important determinants of mergers, along with certain other more cyclical factors, such as the state of the capital market.<sup>18</sup>

An examination of the first tax assessment returns of companies granted Maryland charters produced some information about how many of them operated for at least one year after their incorporation and how many of the others were new business ventures and reconstituted old enterprises, respectively.<sup>19</sup> About 36 per cent of those chartered in 1934 and 1935 forfeited their charters for nonpayment of state taxes billed in the year following that of their incorporation. The economic significance of such "abortive" companies was probably very small.<sup>20</sup> Of the nonabortive incorporations in 1934-35, about 51 per cent reported no previous business history thereby claiming to be new enterprises. A little more than one-fourth reported previous existence as business firms, corporate or noncorporate, and a little less than one-fourth failed to give information about their status before incorporation, although many of them undoubtedly did have business predecessors. Having thus found that more than half of the Maryland incorporations that functioned throughout the first year were new ventures, Evans concludes that "variations in total incorporations would seem to reflect fairly well 'expansion of enterprise' in its narrow sense—the opening of entirely new outlets for capital." It will be shown below that this statement agrees with the results of a comparison between the Dun and Bradstreet incorporation totals and the Commerce figures on the number of new corporations, despite the difference in level of these two series, the Commerce data being defined narrowly to exclude corporate transfers and short-lived or minor creations of all kinds.

Presumably this "new venture" component of total incorporations is largely responsible for the relatively high regularity with which incorporations have historically conformed to business cycles and led at revivals in aggregate economic activity. Or, to put it in different terms, the incorporations that are of primary interest to the student of economic fluctuations are those that represent an early stage in the business planning of investment shortly to be undertaken. In this connection, it is well to examine other indicators of early stages in the investment process for the presence or absence of similar features of behavior.

Accordingly, Table 13.2 compares the record of cyclical timing for

<sup>18</sup> See *Merger Movements in American Industry, 1895-1956*, by Ralph L. Nelson, Princeton for NBER, 1959.

<sup>19</sup> Evans, *Business Incorporations*, Chapter 2.

<sup>20</sup> As would be expected, their share in incorporation totals increases in at least the more severe business contractions, e.g. it rose from 36 to 43 per cent between 1927 and 1932.

## CYCLICAL BEHAVIOR OF TYPES OF LEADING INDICATORS

TABLE 13.2

New Corporate Security Issues and New Business Incorporations:  
Timing Comparisons, 1919-57

Business Cycle Peak	Lead (-) or Lag (+) of		Business Cycle Trough	Lead (-) or Lag (+) of	
	New Corporate Issues <sup>a</sup> (months)	New Incorporations (months)		New Corporate Issues <sup>a</sup> (months)	New Incorporations (months)
Jan. 1920	-5	-1	Apr. 1919	0	-5
May 1923	n.m.	-1	July 1921	-1	-6
Oct. 1926	n.m.	-12	July 1924	n.m.	-1
June 1929	+2	-5	Nov. 1927	n.m.	-11
May 1937	-3	-5	Mar. 1933	-1	+21
Feb. 1945	n.m.	n.m.	June 1938	+15	+15
Nov. 1948	-9	-30 <sup>b</sup>	Oct. 1945	n.m.	n.m.
July 1953	-12	n.m.	Oct. 1949	-1	-6
July 1957	n.a.	-17	Aug. 1954	-4	n.m.
Average	-5.4	-6.8	Average	+1.3	+1.0
Av. deviation	4.1	5.1	Av. deviation	4.5	9.7

## SUMMARY OF THE TIMING OF NEW CORPORATE ISSUES

Timing Relative to	Number of Turns		No. of Turns at Which New Corporate Issues			Av. Lead (-) or Lag (+) (months)	Average Deviation (months)
	Covered	Matched	Led	Coincided	Lagged		
I. Business Cycles	18	11	8	1	2	-1.7	4.4
II. New Incorporations	17	15	6	1	8	+1.1	7.1

<sup>a</sup> Based on data compiled by the *Commercial and Financial Chronicle*. Included in the series are both *domestic* issues (securities sold by all companies incorporated in the U.S., regardless of where the funds may be spent, excluding any refunding operations) and *foreign* issues (securities of foreign companies sold in the U.S.). However, the inclusion of foreign issues has a negligible effect on the timing of total corporate issues.

<sup>b</sup> Excluded from the average and the average deviation.

n.m. = not matched

new corporate security issues to the timing of incorporations for a comparable period (beginning in 1919). The average timing measures for the two series prove to be quite similar, but the corresponding observations at successive business turns differ rather widely. Direct comparisons of the two variables show only a broad parallel between their cyclical movements, but no more could be expected in view of the differences between the processes represented. Small firms, which constitute a great majority of new incorporations, depend for their financing primarily upon the personal resources of their initiators, the funds that the latter can secure from their friends and relatives, and the extension of credit by suppliers and banks. Only the larger new firms can raise money on the

## PART TWO

security markets, and even they frequently do not choose to secure capital through sale of shares or bonds. The cyclical movements are much smaller in new incorporations than in new corporate issues, but also clearer since the latter series is far more erratic. On the average, the cyclical turning points in the two series are roughly coincident, without any systematic tendency for either series to lead the other or lag. The timing comparisons underlying this statement and summarized in Table 13.2 (bottom line) indicate a high cycle-by-cycle variability of this relation.

New business ventures, whether or not in corporate form, usually give rise to investment in plant and equipment. Thus it is of interest to compare the cycles in new incorporations and in business births at large with the corresponding movements in ordering by business of fixed capital assets. New orders or contracts for investment goods are more interesting in this context than actual expenditures on plant and equipment, which are usually recorded at the time of delivery or installation, that is, at a much later stage of the investment process. Materials available for such comparisons are limited, however. For the period since 1948, estimates of aggregate investment commitments can be compiled from data on new orders for producer durables and on contracts for plant construction. We have computed such figures by adding the current dollar values of (a) new orders received by manufacturers of machinery, fabricated metal products, and nonautomatic transportation equipment, and (b) industrial and commercial building contracts.<sup>21</sup> The resulting composite order-contract series, taken quarterly in seasonally adjusted form, has regularly led business expenditures on plant and equipment (Table 13.3, col. 3). But the cyclical timing of new incorporations was for the most part earlier than that of the commitments to invest in fixed capital assets. Incorporations led investment orders four times in the postwar period; on two occasions the timing of the two series was coincident (col. 1). Total business births, however, lagged behind the capital goods orders at three turns (col. 2).

Being very crude, comparisons of this sort must be interpreted cautiously. Thus one must bear in mind that capital investment by new firms is but a small portion of the total. It is certainly the old, established companies that account for the major part of plant and equipment outlays, and their investment may have different characteristics from that of the new companies. What the close relationship between the establishment of new firms and the ordering of new plant and equipment means is that the same considerations—i.e. profit-making opportunities—that

<sup>21</sup> The Department of Commerce (Office of Business Economics) series on new orders was used for component (a), and the F. W. Dodge Corporations series on industrial and commercial construction contracts was used for component (b). For a revised version of this series, see Chapter 14, section VI.

CYCLICAL BEHAVIOR OF TYPES OF LEADING INDICATORS

TABLE 13.3  
Timing of Incorporations and Business Births Relative  
to Investment in Plant and Equipment,  
1946-58

Quarterly Date of Turn in Investment Orders <sup>a</sup>		<i>Lead (-) or Lag (+) at Turn in Investment Orders (quarters)</i>		
		New Incorporations (1)	New Business Firms (2)	Business Plant & Equipment & Equipment Expenditures <sup>b</sup> (3)
1. Peak	II 1948	-8	-9	+2
2. Trough	II 1949	-1	+1	+2
3. Peak	I 1951	-3	-3	
4. Trough	III 1951	0	+1	
5. Peak	I 1953			+2
6. Trough	I 1954			+4
7. Peak	III 1956	-2	+1	+4
8. Trough	I 1958	0	0	+2

<sup>a</sup> Based on new order series of U.S. Department of Commerce, Office of Business Economics, and on industrial and commercial construction contract series of F. W. Dodge Corporation. See text and footnote 21.

<sup>b</sup> Based on estimates of Federal Trade Commission and Securities and Exchange Commission.

give rise to cyclical swings in the one also lead to swings in the other, and at roughly the same time.

NEW INCORPORATIONS AND BUSINESS BIRTHS:

A COMPARISON OF RECENT DATA

The preceding discussion makes it plain that the "number of new business incorporations" is not at all an unequivocal figure, but rather a highly heterogeneous aggregate. We have mentioned the valuable insights into the variations in the "newness" and survival quality of incorporations that have been gained by a painstaking study of primary documents such as charters and tax returns. But there is a definite need for more information that would help clarify the economic meaning of the currently available statistics on total incorporations.

The business turnover data of the Department of Commerce make it possible to derive some information of this sort by inferential measures, which are relatively easy to obtain and provide an independent check on the results based on direct compilations.<sup>22</sup> For our purposes, the crucial feature of these data is, of course, their breakdown by legal form

<sup>22</sup> The need for a comparison of the business turnover and new incorporations data has been recognized in *An Appraisal of Data and Research on Businessmen's Expectations about Outlook and Operating Variables, Report of Consultant Committee on General Business Expectations*, Federal Reserve Board, September 1955, p. 124. In noting this need, the Committee observed that the meaning of the incorporation aggregates is "somewhat less clear" than that of the figures on new business firms.

## PART TWO

of organization. Such classification is at present available annually for the period 1945-54, although in using it one must take account of the fact that the estimates by legal form have not yet been covered in the general revision of the business population data which the compiling agency is currently preparing. The Commerce estimates of the number of new firms, including individual enterprises, partnerships, and corporations, were recently revised and presented graphically as a quarterly series in seasonally adjusted form.<sup>23</sup> The aggregate business population and turnover data will from now on be prepared quarterly with a time lag of about one month rather than semiannually with a lag of six months. These are major improvements over the previous business population statistics.<sup>24</sup> At the time of this writing (summer 1959), however, the new estimates were not yet published in all the numerical detail of the old figures, and it was explained that the method used to obtain the over-all measures promptly does not yield industry and other breakdowns.

The Dun and Bradstreet incorporations series, therefore, still has some important technical advantages over the Commerce data for analyzing the business situation in the short run. It is monthly and readily available with a public release lag of no more than three or four weeks. Moreover, analysis of the incorporation data is facilitated by their long historical record.

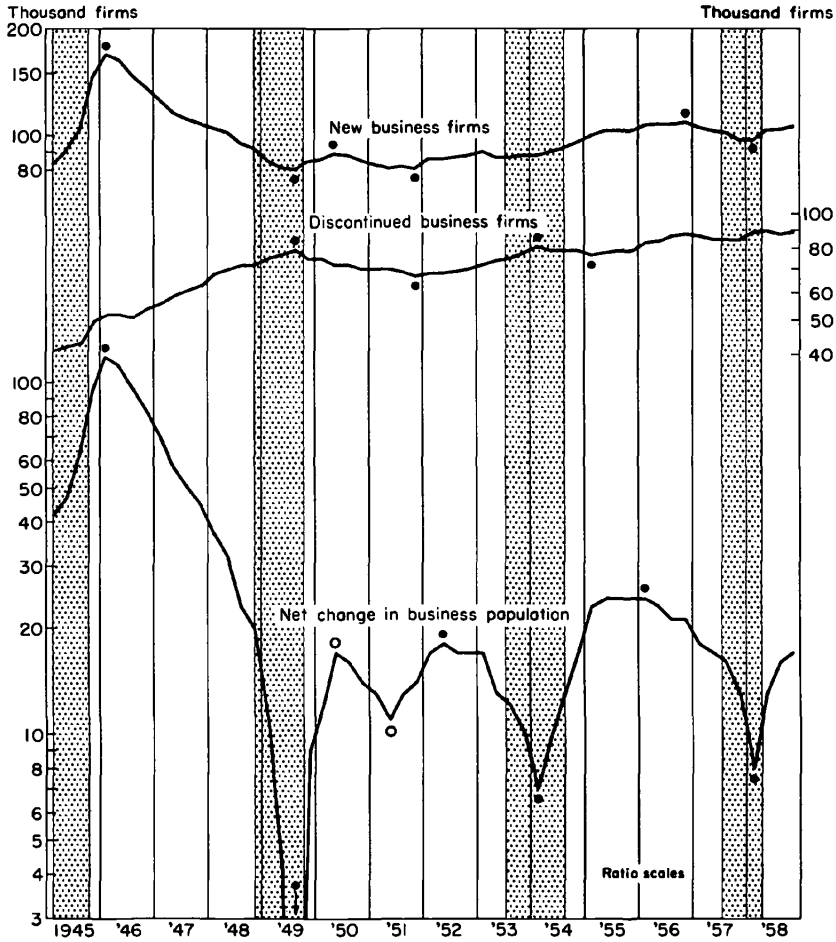
As shown in Chart 13.2, the series of incorporations and of new business firms exhibit broadly similar cyclical behavior throughout the period after World War II. There are, however, some noteworthy differences. First, while both series show long contractions in 1946-49 and long expansions in 1951-56, the amplitudes of their movements in each of these periods vary significantly. The decline following the postwar spurt was larger percentagewise in the total number of new business formations than it was in the number of new incorporations (it was also somewhat longer in the former than in the latter series). On the other hand, the 1951-56 rise was definitely larger in the incorporation figures. As a result,<sup>25</sup>

<sup>23</sup> See Betty C. Churchill, "Rise in the Business Population," *Survey of Current Business*, May 1959, p. 15. The revision covered the period since 1951; data for 1950 and all available earlier years were unchanged. For the early data and a detailed description of sources and methods used in preparing business population estimates, see Betty C. Churchill, "Recent Business Population Movements," *Survey of Current Business*, January 1954 (with "Technical Notes" on p. 24). Here it will suffice to note briefly the main sources: Internal Revenue Service data (for benchmark levels) and Bureau of Old-Age and Survivors' Insurance data (for adjustment of the industry classification and estimation of the quarterly movements within years).

<sup>24</sup> Before the May 1959 revision, the series were available quarterly only through 1952 and semiannually thereafter. Reconversion to quarterly form and prompt availability were recommended by the Committee on General Business Expectations (see reference in note 22).

<sup>25</sup> Note that the intervening specific cycles of 1949-51, short and mild as they were, did not affect appreciably the relative course of the two series being compared (cf. Chart 13.2).

CHART 13.3  
 Number of New and Discontinued Businesses and Net  
 Change in Business Population, 1945-58



Shaded areas represent business contractions; unshaded areas, expansions.

Data are seasonally adjusted.

Dots identify peaks and troughs of specific cycles.

Circles identify retardations.

SOURCE: U.S. Department of Commerce, Office of Business Economics.

## PART TWO

the highest quarterly rates of total new business entries in 1956 were still considerably below the 1946 postwar peak rates, whereas in 1955–56 the number of new incorporations reattained its previous record level of 1946. More recently, in the recovery of 1958, total business births experienced only a slow increase compared to the sharp upswing in incorporations. In sum, the recent decade witnessed a more explicit upward trend in the number of business incorporations than in that of total new business formations.

Second, there are some mildly suggestive timing differences. Incorporations led at each of the postwar troughs in business births, by four, five, and two months in 1949, 1951, and 1958, respectively. Comparisons between the recent peak dates yield a mixed record: incorporations lagged behind new firms by three months in 1946 and led them by nine months in 1956, while the two turned down together in 1950. This evidence is too slender to serve as an empirical basis for a generalization that business incorporations tend to lead business births in general, but it is consistent with the notion that an upturn in the number of new charterings provides an earlier signal of a business revival.

However, as noted before, the record of new incorporations as an indicator of business cycle turns has not really been good in recent years, and the same can be said about total new business formations. Both series “skipped” the 1953–54 contraction in economic activity, although the reaction to this recession of business births at large seems to have been appreciably stronger than the reaction of incorporations. Both series also passed through an “extra” cyclical decline in 1950–51. Superior to either of these in indicator performance is another business turnover variable, the net change in business population. The latter is the excess, in each successive quarter, of the number of newly established over the number of discontinued businesses. It is evident from Chart 13.3 that this is a widely fluctuating series of high cyclical sensitivity. Peaks of the net changes in business population led the general business downturns of 1948, 1953, and 1957 by long intervals, while the troughs led the general business upturns of 1949, 1954, and 1958 by short intervals.<sup>26</sup> It is not surprising that this series should be more sensitive cyclically than business births proper, since business discontinuances show a degree of the inverted conformity to business cycles that one would expect them to have.<sup>27</sup>

<sup>26</sup> The leads at peaks were 33, 14, and 17 months, those at troughs 2, 6, and 2 months, respectively. The series reached a record postwar high early in 1946 and shows no peak to match the 1948 recession. It also experienced a secondary decline during the Korean period 1950–51.

<sup>27</sup> In Chart 13.3 the inverted element in business discontinuances is heavily overlaid by the upward trend in the series, yet it comes out clearly on a few occasions. Note that discontinuances reached a peak shortly before the general business revival in 1949 and again another peak early in 1954, midway in the recession. This pattern of behavior resembles that of business failures, although the latter probably account only for a small

But our principal concern here is with gross business formation rather than net additions to the business population, so the foregoing must remain a brief digression. We turn again to comparisons of incorporations and new firms, but now take into consideration the legal form of the latter. From now on, the type of data available will compel us to work with annual figures only. Unavoidably, this must reduce the usefulness of these comparisons for cyclical analysis.

The annual OBE estimates of the number of new *corporate* firms for the period 1945-54 are presented in Chart 13.4 (bottom curve). To appraise the relation of this series to total new firms, on the one hand, and to total new incorporations, on the other, it is first necessary to apprehend the orders of magnitude involved. In the first decade after the war, the average proportion of corporations in the annual totals of all new business concerns was only 9.7 per cent (this percentage increased from 6.9 in 1945 to 11.2 in 1954). Clearly, changes in the over-all number of business births are heavily influenced by the movements in the rate of formation of new noncorporate enterprises.<sup>28</sup>

Here, then, is the first source of possible divergencies between the time-paths of the total number of new firms and of new business incorporations. As observed before, however, many events other than corporate births are counted in the incorporation figures. The percentage ratios of the annual totals of new corporations (OBE) to the corresponding aggregates of incorporations (Dun and Bradstreet) varied in the years 1945-54 from 35.0 to 42.8. The remaining incorporations, roughly 60 per cent of the total, are attributable to: (a) the shift of existing unincorporated firms to corporate form; (b) the reorganization of existing corporations, transfer to another state, etc.; (c) the setting up of so-called "paper" corporations that have no established place of business regularly devoted to their activities or no paid employees (some of them serve single transactions and are discontinued after a short time interval); (d) the failure to complete the promotion of a projected corporation and to exercise the charter that has been issued; and (e) incorporations in agricultural and professional sectors.

The OBE estimates of the number of incorporated and unincorporated

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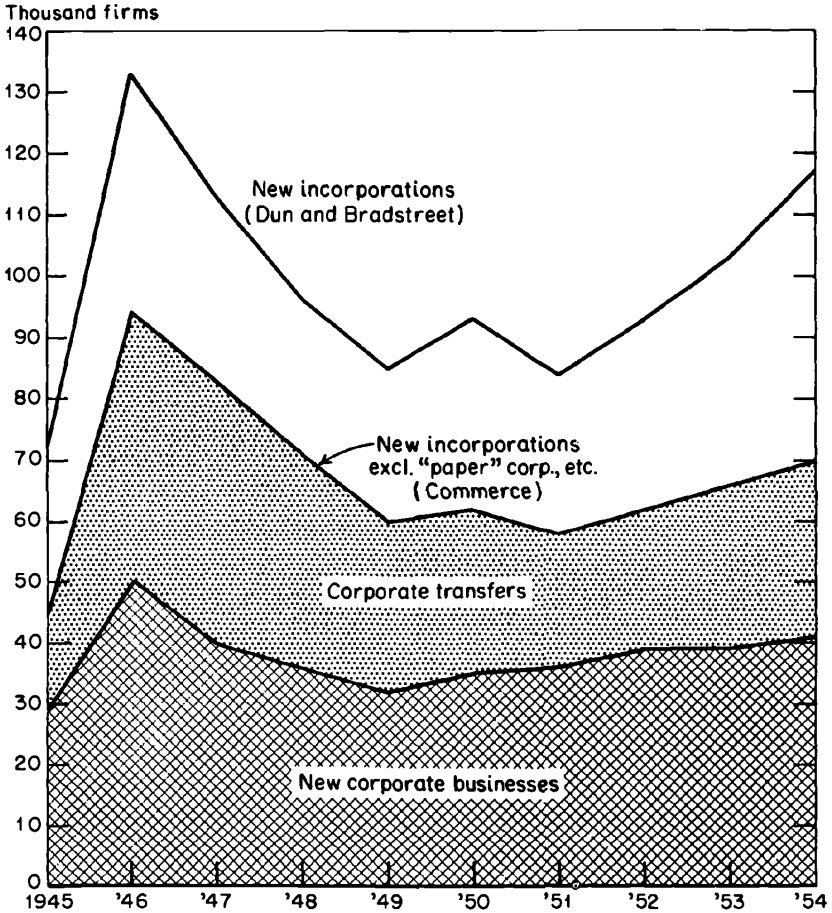
proportion of the discontinuances in all but exceptionally poor times (according to an estimate for 1946—admittedly, not a very typical year in view of the early postwar reconversion—less than one half of discontinuances originated in the need to "prevent or minimize a loss"; and probably even fewer represented actual failures).

<sup>28</sup> The figures on new corporations are taken from Betty C. Churchill, "Business Population by Legal Form of Organization," *Survey of Current Business*, April 1955, pp. 14-20. The revision of these estimates that is under way is unlikely to affect the general conclusions reached in the text. The revision, occasioned as it is by the appearance of additional information reflecting the recent extensions in social security coverage, should affect primarily the estimates of firms in the noncorporate rather than the corporate sector.

PART TWO

CHART 13.4

Incorporations and New and Transferred Corporate Businesses, 1945-54



SOURCE: Dun and Bradstreet, Inc.; U.S. Department of Commerce, Office of Business Economics (*Survey of Current Business*, April 1955). Commerce figures for 1954 are based on incomplete data.

business firms “newly acquired by transfer of ownership” enable us to analyze some of these factors. Annual figures are provided on the number of firms transferred into or reorganized within the corporate sector, which is precisely a measure of the joint effect of (a) and (b). This series, labeled for brevity “Corporate Transfers,” is represented in Chart 13.4, where it is added to the previously mentioned series of new incorporations. As a result of this combination, annual estimates of the number of new business incorporations are obtained, which include only concerns that

## CYCLICAL BEHAVIOR OF TYPES OF LEADING INDICATORS

are considered "firms in operation" under the business population definitions of the Department of Commerce. Chart 13.4 (cf. the two upper curves) shows that the series thus constructed moves from year to year in the same direction as the Dun and Bradstreet totals of new incorporations.<sup>29</sup>

The excess of the latter over the former series represents the aggregate of the three factors not yet eliminated: (c) the new "paper" corporations, (d) the abortive incorporations, and (e) the incorporations in agriculture and professions. These totals turn out to be of substantial size; for the years 1945-54 they averaged 47 per cent of the combined new and transferred corporate firms. That they are so large is due principally to the "paper" corporations which are very numerous in one industrial division: finance, insurance, and real estate.<sup>30</sup> The components (d) and (e) are of minor weight.

The residual series of "paper" corporations, etc., moved from year to year in the same direction as the incorporation (and also the total business births) figures, except in 1948-49, when it registered no change while the other series declined (Chart 13.5). But its relative changes after 1949 were larger than those in either set of incorporation figures. Accordingly, the Dun and Bradstreet series is virtually an accentuated replica of the series constructed from the OBE estimates.

Chart 13.5 also shows the series of "business firms newly acquired by transfer," which consists of the annual totals of all firms that underwent a change in either ownership or legal form of organization. In each of the years covered in the chart, 1945-54, these business transfers were somewhat larger in number than the business births proper, but this was reversed in the years 1955-58 (for this latter period, see Chart 13.8). However, the two series moved in the same direction in all but three of the thirteen annual intervals recorded (in 1949-50, 1953-54, and 1957-58), and most of the time they run close together, particularly since 1951. "Corporate transfers" (the series used in Chart 13.4) have remained a quite stable proportion in total business transfers from year to year since 1946, averaging about 6.5 per cent.

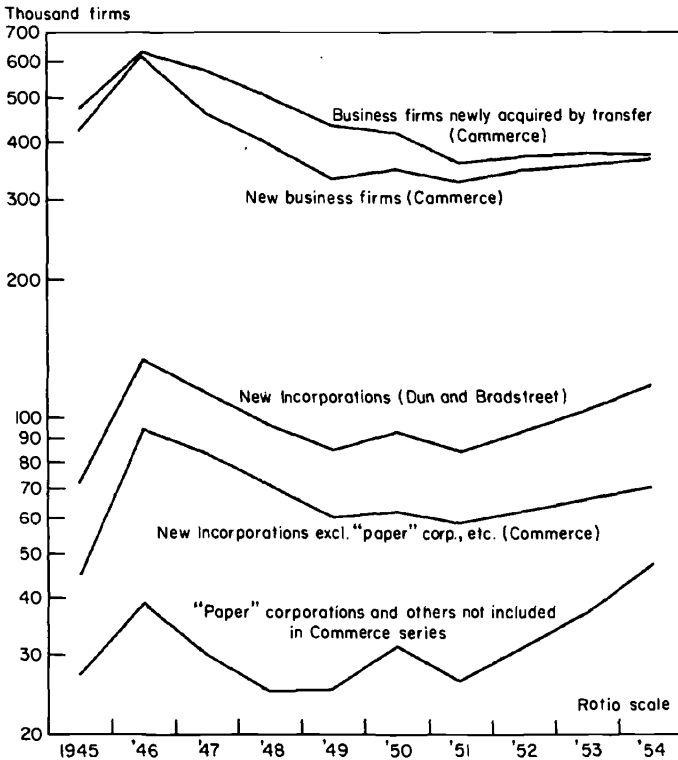
<sup>29</sup> Concerning the behavior of the composite series of new incorporations (Commerce), some further reading of Chart 13.4 and the underlying data suggests the following. Between 1949 and 1950, new incorporations grew in number because the increase in newly established corporations was larger than the decrease in "corporate transfers." Conversely, there was a decline in the composite series in 1950-51 because the reduction in transferred corporations was larger than the gain in new ones. In the other years corporate transfers and corporate births moved in the same direction (except in 1952-53 when the latter remained at the same level).

<sup>30</sup> In this connection, it should be noted that, according to the definition adopted in the business population statistics of the Commerce Department, concerns are not regarded as "firms in operation" unless they have either at least one paid employee or an established place of business. The "paper" corporations, those that do not satisfy these criteria, are therefore excluded.

PART TWO

CHART 13.5

Business Births and Transfers, Incorporations, and "Paper" Corporations, 1945-54



SOURCE: U.S. Department of Commerce, Office of Business Economics; Dun and Bradstreet, Inc.

FACTORS BEARING ON RECENT BUSINESS POPULATION AND INCORPORATION MOVEMENTS

1. Industrial composition. The relative attractiveness for business purposes of the corporate compared to the noncorporate type of organization may change as a result of broad developments affecting many industries, such as new tax legislation. But it is also possible that changes in distribution by legal form of new and/or transferred business firms merely reflect changes in the industrial composition of economic activity. Sectors where the corporate form is dominant may grow or decline relative to other sectors. The distributions by industry of new firms of all types of organization and of the comprehensive new incorporation totals cannot, regrettably, be compared directly because the Dun and Bradstreet data are not subdivided by industry. But it can be shown convincingly,

CYCLICAL BEHAVIOR OF TYPES OF LEADING INDICATORS

though in a somewhat roundabout way, that they differ in an apparently characteristic manner. Percentage distributions by major industry divisions of both new and transferred corporate businesses can be computed for the years 1951-54. This means, of course, that the same can be done for the composite figures of new incorporations, "Commerce concept." The accompanying tabulation of the 1954 percentage distribution shows the greater importance of the trade, construction, and service divisions in the new business firm data and the greater importance of manufacturing and the "other industries" division (public utilities, finance, and mining) in the corporate data. Trade accounts for a higher percentage in the combined new and transferred corporations than in the new corporations only, which reflects the fact that transfers of all kinds are particularly frequent in retail trade. Since the bulk of the "paper" corporations is in the finance, insurance, and real estate division, there is little doubt that the percentage distribution by industry of the Dun and Bradstreet data (which is not available) would differ from its counterpart shown in our tabulation (col. 1) mainly in that it would give a larger weight to the "all other" category.<sup>31</sup>

	<i>New Incorporations (New and Transferred Corporations)</i>		<i>New Transferred Business Firms</i>		<i>Trans- ferred Business Firms</i>
	(1)	(2)	(3)	(4)	(5)
Trade	38.4	34.0	44.6	46.1	70.6
Construction	11.3	12.8	9.2	16.8	3.6
Service industries	12.4	12.3	12.6	16.6	14.4
Manufacturing	16.4	16.1	16.7	6.9	4.1
All other (public utilities, finance, etc., mining)	21.6	24.8	17.0	13.6	7.4
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	100.0	100.0	100.0	100.0	100.0

<sup>31</sup> The concentration of "paper" corporations in finance, insurance, real estate is well illustrated by the large weight of that division in the distribution of corporations reporting for income taxation (28.2 per cent in 1950 as against the 12.6 per cent of finance, etc., in the number of new corporations in the third quarter of 1950). As observed by Evans (*Business Incorporations*, p. 59), the industrial composition of existing corporations is quite similar to that of new incorporations. Hence the difference between the two percentages presumably reflects the large number of corporations in this division that report for income tax purposes but are classified as "paper" corporations by the Dept. of Commerce.

PART TWO

However, the percentage shares of the major industry divisions in the totals of both the new and the transferred business firms are remarkably stable, at least if the statistics for the 1945–58 period are in this respect representative.<sup>32</sup> Assuming that the industrial composition of new and transferred corporations was also stable, there is little here that would make for dissimilarities in the time paths of new incorporations and of total business births and transfers. In terms of business births, public utilities and particularly finance, insurance, and real estate (both divisions with relatively large corporate sectors) gained in the last decade somewhat faster than the other major industries (Chart 13.6). This is suggestive, for it will be recalled that the period also witnessed a greater advance in the number of new corporations than in the number of total (and therefore *a fortiori* of noncorporate) business births. Then, too, public utilities and finance, etc., were the only two industry divisions to register an increase in terms of new business between 1950 and 1951 (Chart 13.6). This may be significant in connection with the fact that corporate births increased somewhat in the same interval even though total business births decreased, as did business and corporate transfers and total incorporations (Charts 13.4 and 13.5).

In conclusion, there is very little indication that the process of new business formation is cyclically more sensitive in certain industries than in the others. True, the limitations of our materials—a few short annual and broadly aggregative series—preclude a categorical generalization of the above statement. We can merely note that in 1953–54 business births declined in only one division, manufacturing.<sup>33</sup> On the other hand, all major industry divisions except trade participated in the early downturn of business births at the next recession. As shown in Chart 13.6, the number of new trading concerns increased slightly in 1956–57 and decreased

<sup>32</sup> Thus consider the following summary:

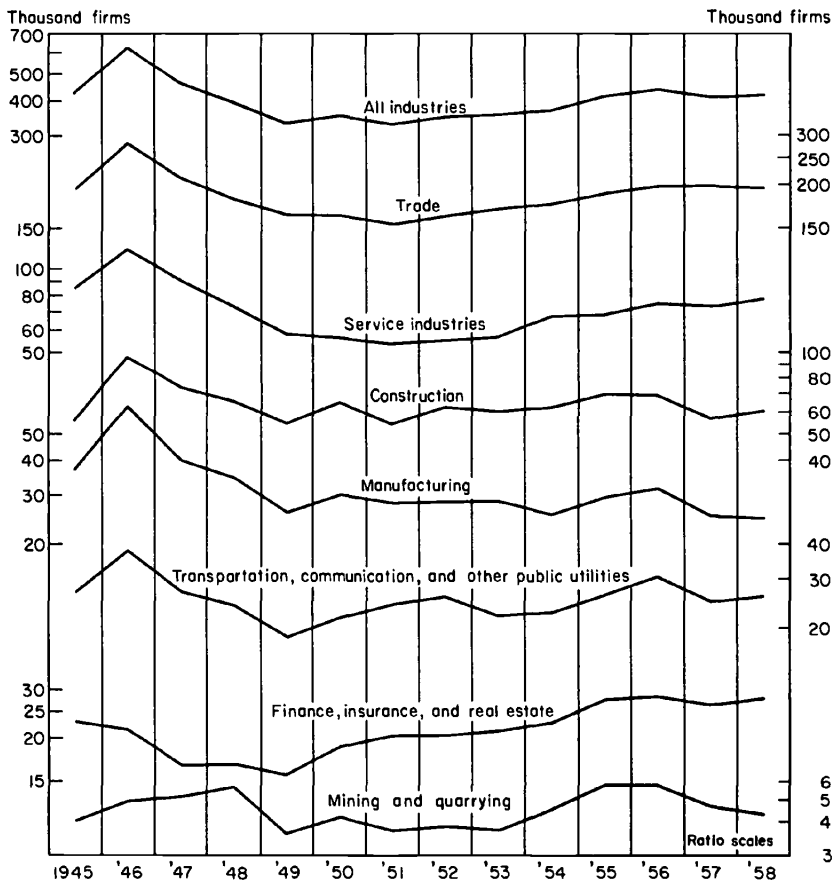
	Trade	Construction	Services	Manufacturing	All Other
<i>Business births</i>					
Avg. % share, 1945–58 ( $\bar{X}$ )	45.5	16.1	17.5	7.9	13.0
Standard deviation ( $s$ )	1.2	1.4	1.4	1.1	1.5
% of observations within range of $\pm 1s$ from $\bar{X}$	71.4	71.4	64.3	78.6	64.3
<i>Business transfers</i>					
Avg. % share, 1945–58 ( $\bar{X}$ )	69.7	3.3	15.4	4.7	7.0
Standard deviation ( $s$ )	0.9	0.4	1.0	0.6	0.5
% of observations within range of $\pm 1s$ from $\bar{X}$	78.6	92.9	78.6	64.3	78.6

<sup>33</sup> Earlier, in 1952–53, there was a decrease in the number of new firms in the group transportation, communication, and other public utilities, which might also be related to the 1953 business recession.

CYCLICAL BEHAVIOR OF TYPES OF LEADING INDICATORS

CHART 13.6

Number of New Business Firms, by Major Industrial Divisions, 1945-58



SOURCE: U.S. Department of Commerce, Office of Business Economics (*Survey of Current Business*, January 1954, p. 13, and May 1959, p. 18).

only in the following year, while the number of new firms in all other industries declined between 1956 and 1957.<sup>94</sup>

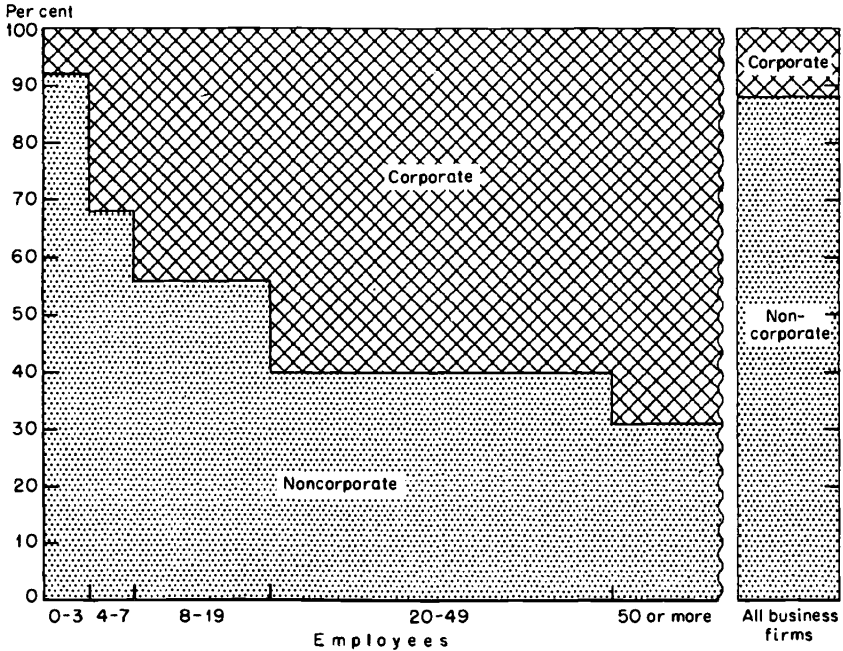
2. Size characteristics. The larger new firms are in terms of employment, the higher will be the percentage of new business firms accounted for by new incorporations (Chart 13.7). This may be observed in each of the industry divisions for which information cross-classified by type of

<sup>94</sup> In the service industries and in trade, the declines were slight compared to those in the other major industry groupings.

PART TWO

CHART 13.7

Percentage Distribution of New Business Firms by Legal Form of Organization and Size of Firm, 1954



SOURCE: U.S. Department of Commerce, Office of Business Economics (*Survey of Current Business*, April 1955).

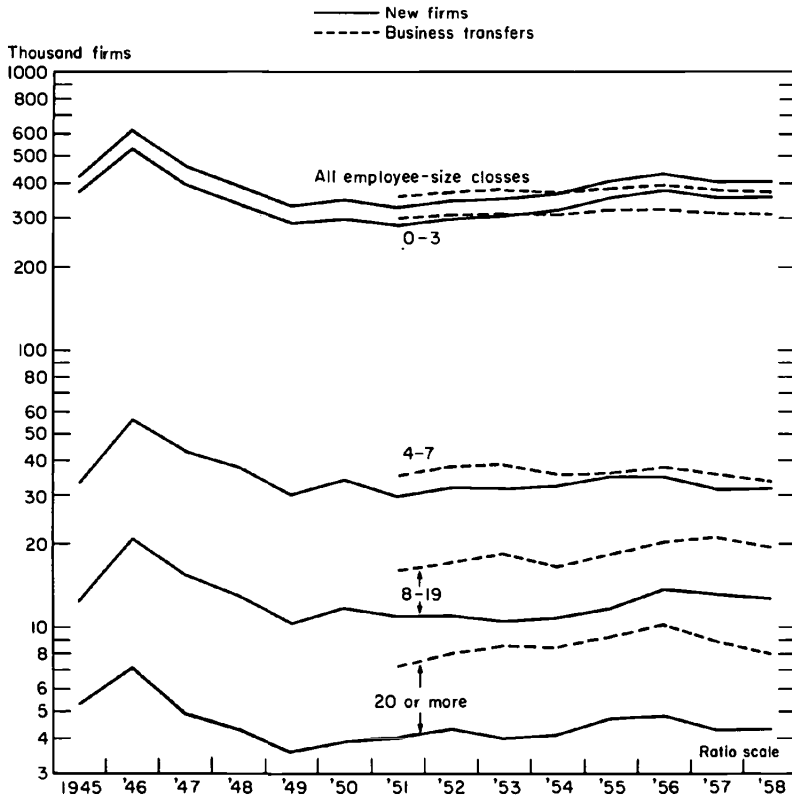
organization and size is available: construction, manufacturing, and trade, as well as for all industries combined. Similarly, the larger the size of a transferred business in terms of employment, the more likely it is that the firm is a corporate one, and here the corporate proportion increases even more steeply between the size classes (this information is classified in the same way as that for new firms and available for the same year, 1954). Thus an increase (decline) in the importance of the larger concerns among the new or transferred firms can be expected to accompany an increase (decline) in the weight of the corporate sector in the given series.

However, the dominant feature of the annual movements in business births of different size is that they tend to parallel each other, and the same can be said, on the evidence of shorter series, about the movements of business transfers of different size (Chart 13.8). In the present context, the stability of the size distributions presents a clear-cut analogy to the stability of the industry distributions: if both apply to the corporate

CYCLICAL BEHAVIOR OF TYPES OF LEADING INDICATORS

CHART 13.8

Number of New Businesses (1945-58) and of Transferred Businesses (1951-58), by Size of Firm in Terms of Employment



SOURCE: U.S. Department of Commerce, Office of Business Economics (*Survey of Current Business*).

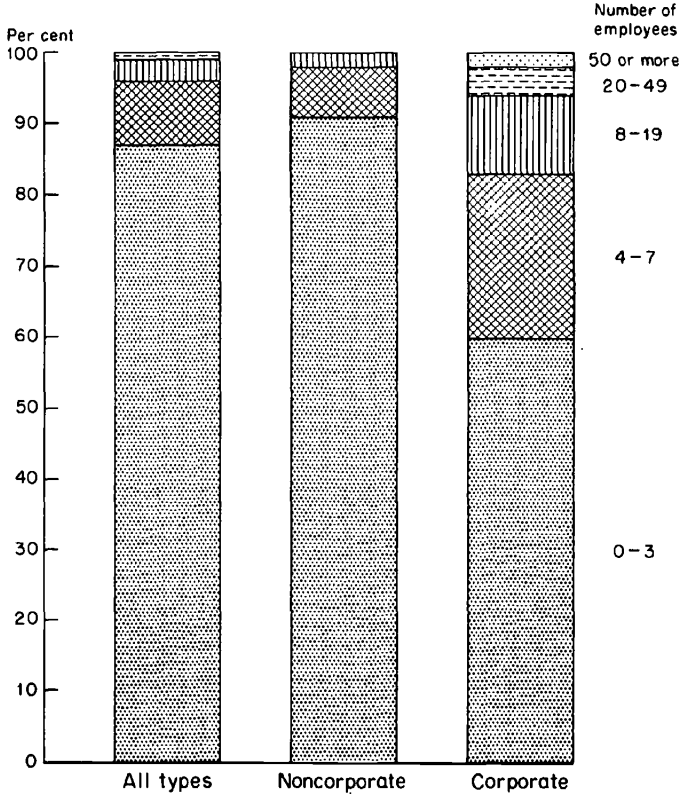
sector too, then both make for similarity in the behavior of new business firms and new corporations.

The few instances in which significant variation can be observed between movements of business births or transfers of different size are consistent with our previous observations. Thus in 1950-51 there was an increase in the largest and a decrease in all smaller business births (Chart 13.8). As shown before, in the same period there was also an increase in the corporate and a decrease in all other business births. While it is found that the year-to-year changes in the largest business formations are closely associated with the corresponding movements in

PART TWO

CHART 13.9

Percentage Distributions of New Business Firms Within Types of Organization, by Size of Firm in Terms of Employment, 1954



The employee-size class 50 or more accounts for less than 0.5 per cent of the number of all new business firms. The employee-size classes 50 or more and 20-49 each account for less than 0.5 per cent of the number of all noncorporate business firms.

SOURCE: U.S. Department of Commerce, Office of Business Economics (*Survey of Current Business*, April 1955).

numbers of either the corporate or the noncorporate new firms, their correlation with the former is somewhat better than their correlation with the latter. It must be pointed out here that, whereas most of the large new firms are corporate (Chart 13.7), the proportion of the newly established concerns accounted for by the relatively large-size units is quite modest even in the corporate sectors (and exceedingly small in the noncorporate sector, cf. Chart 13.9).

The evidence of the industry and size-of-firm series confirms that

of the aggregate business births series in at least one important respect. All these data support the conclusion that the 1953–54 recession had much less impact on new business formation than the other two business recessions of the recent postwar period or even the 1951 “deflationary phase” of the Korean expansion.<sup>35</sup> Thus new firms in all size groups reached low troughs in 1949 and peaks in 1956; all but those in the largest size group also show decreases in 1950–51. But new firms in the small-size group, which constitute the large majority of all business births, continued to increase in number throughout a five-year interval centered on the recession period in 1953–54; the only declines during this period—and they were very slight—occurred in the numbers of larger new firms in 1952–53 (Chart 13.8).

These facts seem to reflect in some measure the general character of the economic developments in the corresponding periods. The declines in 1951, which followed the early Korean boom in forward buying, were concentrated in consumer goods markets, while defense production and all related industries continued to expand. Such weakening of consumer demand and the subsequent deterioration of conditions for trade might be expected to affect adversely new business formation in certain areas in which new and small business is particularly important, notably retailing and construction (reflecting a decline in residential building). To a lesser extent, manufacturing was also affected, presumably in the consumer goods sector. In the business recession of 1953–54 there was also an early decline in consumer expenditures for various commodities (not services), but it was very mild and short; at the beginning of 1954 consumer demand, on the whole, was again on the rise. The center of the remaining weakness was in the manufacturing sector of the economy and it was only there that new business formation fell off in that year. As for the 1948–49 developments, this contraction came at a time when business natality was still declining from its unusually high postwar readjustment peak of 1946; the general recession undoubtedly amplified the decline. The business contraction of 1948–49 was somewhat more severe than that of 1953–54 but less severe than that of 1957–58,<sup>36</sup> and the impact of these recent recessions upon new firm formation seems to accord broadly with the above ranking.

3. Tax legislation. Certain developments in taxation can affect the relative position of firms of different legal organization but similar size, in all divisions of industry. Hence they may also change the comparative

<sup>35</sup> For dating and description of this phase, see Bert G. Hickman, *The Korean War and United States Economic Activity, 1950–1952*, Occasional Paper 49, New York, NBER, 1955, pp. 21–27.

<sup>36</sup> Geoffrey H. Moore, *Measuring Recessions*, Occasional Paper 61, reprinted here, Chapter 5, particularly pp. 146–156.

attractiveness of the different forms of organization in the eyes of those who contemplate formation of a new, or transfer of an existing, business. Presumably the termination, effective January 1, 1946, of the wartime excess profits tax, which applied only to corporations, had an effect of this kind. The 1945-46 rise in the number of new corporations was relatively larger and the subsequent decline smaller than the respective movements in noncorporate births (Chart 13.2). Between 1945 and 1947 the percentage of corporate firms increased both among business births (from 6.9 to 8.7) and among business transfers (from 3.4 to 7.5). But the corporate share in the new firm totals continued to increase in the following years (reaching a peak of 11.3 per cent in 1952), even though legislation enacted in the course of 1950 increased the corporate income tax rates and reintroduced a corporate excess profits tax.<sup>37</sup> This might be taken to indicate that taxation developments had little influence here. However, the share of corporations among business transfers did decrease after 1947 and again after 1950 (to a low of 6.1 per cent in 1951), and this observed difference between the movements of corporate births and of corporate transfers is suggestive. The wartime excess profits tax did not apply to the first \$25,000 of taxable corporate income and the same minimum excess profits credit was provided to all corporations in 1950: but, as noted before, *new* businesses even in the corporate sector are mostly *small* firms, a fact attested by Chart 13.9. On the other hand, *transfers* into and within the corporate sector are not so concentrated in the small firm-size classes, which should have made them more sensitive to the type of tax legislation referred to above.<sup>38</sup>

The best example of how strong the impact of tax developments can be upon movement and structure of business births and transfers is provided by the 1958 legislation designed to help small business. Title I of the Technical Amendments Act of 1958 permitted corporations with ten or fewer shareholders to elect not to be taxed as a corporation. The shareholders must then pay the individual income tax on their pro rata shares of the corporation's earnings whether or not the earnings are distributed. The resulting tax advantage for small corporations favored

<sup>37</sup> Although the Excess Profits Tax Act of 1950 was not passed until the final week of the Eighty-first Congress in December, no doubt its enactment was anticipated by businessmen much earlier. The congressional committees were directed to report out an excess profits tax bill in the Revenue Act of 1950 (finally approved in September of that year, after a first tax revision bill was passed by House in June). This act itself increased the corporation income tax rates. Corporate profits after tax declined between 1950 and 1951 in various firm-size classes.

<sup>38</sup> The percentages of corporate transfers (all industries) accounted for by the employee-size classes 0-3, 4-7, 8-19, and 20 or over are 35, 27, 22, and 16, respectively (the corresponding percentages for noncorporate transfers are 87, 9, 3, and 1). Compare that with the distribution by the same classes and for the same year (1954) of corporate births: 60, 24, 11, and 6 per cent (Chart 13.9).

## CYCLICAL BEHAVIOR OF TYPES OF LEADING INDICATORS

the choice of corporate form in new business formation and apparently encouraged many small proprietorships and partnerships to incorporate. Chart 13.2 shows that new business incorporations increased sharply after their trough in April 1958 through the rest of the year, while the number of total (corporate and noncorporate) business births underwent only a relatively moderate recovery. According to a comment by Dun and Bradstreet in their release on new business incorporations for May 1959, "the consensus of opinion is that much of the sharp increase in incorporations that began last fall was due to the approval on September 2, 1958 of the Technical Amendments Act . . ." However, we lack information even for a rough estimate of how much of the rise was the result of this factor and how much was due to the recovery from the recession. The rise, after seasonal variations are taken into account (Chart 13.2), began in May 1958 and was rapid right from the start.

Those who study Chart 13.2 carefully will observe that the rise of incorporations in the previous recovery year, 1954, was also quite strong. But then there, too, taxation developments may have been to some degree instrumental. A memorandum, for which we are indebted to Dun and Bradstreet, reports that large and respected tax consultant firms advised their clients to defer incorporation until the 1954 tax law had been enacted and studied. After it was found that the new law did not impose any special disadvantages on a shift to corporate form, clients were advised to incorporate and a rise in incorporations followed even though the law in itself did not encourage such moves.

### *Conclusions*

A long historical record is available to show that the number of new business incorporations has been a relatively sensitive leading indicator of business cycle turns. Although the cyclical conformity of incorporations in the period after World War II was not high, we have neither reason to believe nor evidence to suggest that this represents a systematic departure from the pattern of the past. On the other hand, we do find support in the data for the contention that the recent behavior of incorporations reflects largely special circumstances of the period: first, the reconversion of the economy from wartime to peacetime; second, the prevalence of boom or prosperity conditions with but short and mild interruptions; and, third, the passage of tax legislation affecting incentives to incorporate.

Moreover, comparison of recent data shows that the series of incorporations has just as many cyclical indicator qualities as that of total business births. In fact, the former series led the latter more often than not, especially at troughs; otherwise, the two followed remarkably similar cyclical paths. This is encouraging, for a large proportion of incorporations

represent, not really new business enterprises, but successions to similar firms that existed in the past, and events of this sort need not necessarily be associated with cyclical movements of the economy.<sup>39</sup> Yet there is no evidence that the inclusion of this component has much disturbing effect on the broad pattern of cyclical behavior of total incorporations.

Among the factors examined in our comparative analysis of incorporations and business births and transfers, taxation developments appear to be of substantial importance. While neither this factor itself nor its disturbing potentiality is an entirely new phenomenon of the recent economic scene, tax considerations in the present context (as in so many others) appear to play a greater role now than in the prewar past. In the future, tax changes in this area might become more important still, and this could seriously influence the course of the number of new incorporations.

In analyzing all these matters, the usefulness of the various classifications and cross classifications of business births and transfers, such as were presented recently in special OBE surveys, is apparent. It is hoped that more information of this type will be published in the forthcoming articles of the business population series. If such distributions by legal form of organization, industry, and size were available regularly on a monthly basis, several interesting questions might be answered, at least after the time series, which could then be constructed, had grown sufficiently long. For instance, among the new firms, do the large ones differ in degree of cyclical sensitivity from the small ones? It is reasonably well established that cyclical fluctuations in business affect the number of large incorporations most and that of small incorporations least.<sup>40</sup> Also National Bureau studies of business failure data indicate that cyclical

<sup>39</sup> In many such cases, no more than a change in ownership, perhaps just an admission of a minor financial interest, may be involved, without any change in management, business policies, products, or prices. For a classification of new firms by type and degree of "newness," see Alfred R. Oxenfeldt, *New Firms and Free Enterprise*, Washington, 1943, pp. 23-32.

<sup>40</sup> Evans, *Business Incorporations*, Chapter 6. A small incorporation was defined as one with an authorized capital stock of less than \$100,000. Companies with \$100,000-1,000,000 authorized capital were classified as "medium-sized," and those with \$1,000,000 or more as "large." These definitions are admittedly arbitrary for any given point of time, and the use of rigid class limits over longer periods has the undesirable effect of narrowing down the amplitude of fluctuations in the number of small incorporations (for companies that will handle comparable volumes of business in the long run may organize with larger capital stock in good than in bad times, and be therefore treated as large incorporations in prosperity but as small ones in depression). Nevertheless, even when this shortcoming is allowed for, the evidence still seems adequate to show that typically the relative amplitude of cyclical movements is wider for large than for small incorporations. For example, among the Delaware incorporations of the period 1916-30 large companies were about as numerous as small ones, but the former moved in wider cyclical swings than the latter. This suggests that the industrial composition of incorporations is important for their cyclical behavior: large incorporations account for a higher proportion of the total in manufacturing and public utilities than in trade.

movements for large bankruptcies are both earlier and wider than for small bankruptcies, and business deaths by failure have several characteristics of a negative correlate of business births. (See Chapter 12 of this volume.) Thus it is pertinent to ask whether a similar differentiation of cyclical reactions is observable in the Commerce new business figures when these are broken down into two or three broad size groups, by industry; but to answer this question, longer monthly series are needed. Moreover, it would be useful to have these statistics organized so as to permit judgment on the importance of new firms in providing additional employment in each of the major industries.

Also, it would be helpful to get more information from the incorporation records assembled by Dun and Bradstreet. The possibility of a classification of these data by major industry division, such as Evans provided, is certainly worth investigating. Among other things, it would help to distinguish new births, on the one hand, and transfers and reorganizations, on the other, since the latter are heavily concentrated in the finance, insurance, and real estate field. Of course, if transfers and reorganizations could be distinguished directly in the incorporations data, that would be still better. Such a dichotomy would help in answering the following questions: Are the transfers and reorganizations in the corporate sector significantly sensitive to cyclical fluctuations in business? If so, why? If not, to what extent does this impair the quality of new business incorporations as a cyclical indicator? Here again Department of Commerce data would obviously be informative, too, if made available promptly on a monthly basis for business transfers classified by form of organization after the transfer.