Volume Title: Institutional Investors and Corporate Stock—A Background Study

Volume Author/Editor: Raymond W. Goldsmith, ed.

Volume Publisher: NBER

Volume ISBN: 0-870-14237-2

Volume URL: http://www.nber.org/books/gold73-1

Publication Date: 1973

Chapter Title: The Historical Background: Financial Institutions as Investors in Corporate Stock Before 1952

Chapter Author: Raymond W. Goldsmith

Chapter URL: http://www.nber.org/chapters/c3536

Chapter pages in book: (p. 34 - 90)

2

The Historical Background: Financial Institutions as Investors in Corporate Stock Before 1952

RAYMOND W. GOLDSMITH

1. SOURCES AND LIMITATIONS OF DATA

The statistical material for the analysis of the holdings of corporate stock by financial institutions before 1952 within a framework of national accounts is naturally much thinner and less reliable than that available for the postwar period on which the report concentrates and with which Chapters 3 to 5 deal. No flow of funds statements exist for the period before the mid-1930's, and for the first decade for which they are available they are not fully comparable to the present system. No national or sectoral balance sheets have been prepared for any date during the nineteenth century, and for the first half of the current century they are available only for a few benchmark years. Similarly the elements from which flow of funds statements and the financial part of the national and sectoral balance sheets are now built up—essentially the balance sheets of groups of financial and nonfinancial sectors published by or reported to government agencies—are less copious, less reliable, and less detailed as we go back in time, particularly to the period before World War I. The statistical evidence used in this chapter therefore is more piecemeal than that utilized for the postwar period. The main source, in addition to the national balance sheets for the benchmark years 1900, 1912, 1922, 1929, 1939, and 1945,[1] are the balance sheets of the main groups of financial institutions.[2] Since no material of this type is available for some important

[1] R. W. Goldsmith, R. E. Lipsey, and M. Mendelson, *Studies in the National Balance Sheet of the United States*, Princeton, Princeton University Press for National Bureau of Economic Research, 2 vols., 1963.

[2] For figures back to 1900 see R. W. Goldsmith, *Financial Intermediaries in the American Economy since 1900*, Princeton, Princeton University Press for NBER, 1958.

groups for the period before 1900 it was necessary to develop estimates based on a small number of companies for property insurance companies and to use figures derived from reports of supervisory agencies in the most important states for mutual savings banks for 1870, 1880, and 1890. Even rougher estimates had to be used for some other figures needed for benchmark dates before 1900.

The nonstatistical historical statements made throughout this chapter are not specifically documented, as they are taken from standard sources and do not claim to represent the results of original research.

The arrangement of this chapter follows the approach outlined in Chapter 1, and uses magnitudes and ratios explained and to some extent justified there.

2. THE SUPPLY OF CORPORATE STOCK, 1850–1952

a. The Growth of Nonfinancial Corporations

Until the railway age, i.e., the beginning of the second third of the nineteenth century, corporations played only a negligible role in the nonfinancial sectors of the American economy, with the exception of canal transportation. In 1850 the share of nonfinancial corporations in national wealth, which is probably as good an indicator of their importance in the economy as can be obtained, is estimated to have been in the neighborhood of only about 7 percent (Table 2-1). Primarily as a result of the rapid expansion of the railroad system, both the absolute value of tangible assets of nonfinancial corporations and their share in national wealth increased sharply. By 1880 nonfinancial corporations owned and operated slightly more than one-fourth of the total tangible assets in the United States. No definite trend can be detected in this ratio during the following eighty years. Thus, the tangible assets of nonfinancial corporations seem to have expanded at approximately the same pace as total national wealth from 1880 to the 1950's, disregarding relatively short and narrow fluctuations.

During this period there occurred, of course, considerable shifts in the industrial distribution of capital expenditures and of tangible assets, but they were not of a nature to lead to substantial changes in the relation of external financing and of stock issues to capital formation for the corporate structure. During the second half of the nineteenth century the share of railroads and public utilities in total tangible assets of nonfinancial corporations apparently remained close to one-half, and the share declined but slowly, to about two-fifths between the 1920's and the late 1940's.

TABLE 2-1

Share of Nonfinancial Corporations in National Wealth and Assets, 1850–1952

	National Assets			Tangible Assets			Financial Assets		
	Total ($billion) (1)	Nonfinancial Corporations ($billion) (2)	Share (percent) (3)	Total ($billion) (4)	Nonfinancial Corporations ($billion) (5)	Share (percent) (6)	Total ($billion) (7)	Nonfinancial Corporations ($billion) (8)	Share (percent) (9)
1850	9.8	[.7]	[7]	7.2	[.5]	[7]	2.6	[.2]	[8]
1880	66.3	—	—	40.0	[11.0]	[28]	26.3	—	—
1900	156.8	35.0	22	89.8	21.1	23	67.0	13.9	21
1912	306.2	66.4	22	167.2	41.0	25	139.0	25.3	18
1922	644.8	152.3	24	326.1	92.1	28	318.7	60.2	19
1929	973.4	228.1	23	427.1	121.4	28	546.3	106.7	20
1939	863.3	153.5	18	396.5	101.7	26	466.9	51.8	11
1945	1,532.9	251.0	16	578.5	142.9	25	954.5	108.1	11
1952	2,570.5	508.2	20	1,199.3	338.4	28	1,371.2	169.7	12

NOTE: In this and other tables, components may not add exactly to totals because of rounding.

SOURCES:

1900–52: R. W. Goldsmith, R. E. Lipsey, and M. Mendelson, *Studies in the National Balance Sheet of the United States*, Princeton, Princeton University Press for National Bureau of Economic Research, 1963, Vol. II, p. 42 ff.

Col. 4. 1850, 1880: R. W. Goldsmith in *Income and Wealth*, Series II, New York, NBER, 1938, pp. 306, 310, 317.

Col. 7. 1850, 1880: E. S. Shaw and J. G. Gurley, "The Growth of Debt and Money in the United States, 1800–1950: A Suggested Interpretation," *Review of Economics and Statistics*, 1957, p. 256. Figures in brackets are very rough estimates.

Within the regulated industries the steam railroads' share, however, declined sharply, from about seven-eighths in 1870, and a probably equally high percentage in the preceding twenty years—to about 70 percent at the turn of the century, and to not much over 50 percent in 1929 and 1945.[3] Most of the remaining tangible assets of nonfinancial corporations, i.e., from nearly one-half in the mid-nineteenth century to

[3] M. J. Ulmer, *Capital in Transportation, Communications and Public Utilities: Its Formation and Financing*, Princeton, Princeton University Press for NBER, 1960, p. 235 ff.

about three-fifths from the 1920's on, were in the hands of manufacturing and mining corporations.

The stability of the share of nonfinancial corporations in national wealth is the result of several offsetting tendencies. The increasing share of corporations in the total business sector tended to increase the proportion, but the expansion of the tangible assets of government and of consumer durables, well in excess of the growth of total national wealth, worked in the opposite direction.

The supply of corporate stock and the value of stock outstanding, however, are not dependent only on the growth of tangible assets (i.e., structures, equipment, inventories, and land) owned by nonfinancial corporations. At least three other factors influence the absolute volume of the supply of stock of nonfinancial corporations and its relation to aggregate magnitudes such as national wealth or national product.

1. The extent to which additions to the tangible assets of nonfinancial corporations excluding valuation changes, i.e., their capital expenditures, are financed by the issuance of corporate securities in the widest sense (stocks, bonds, mortgages, bank loans, trade credit, and other borrowings) rather than defrayed out of retained earnings, whether earned depreciation allowances or net corporate saving;

2. The share of common and preferred stock in the total external financing of nonfinancial corporations;

3. The discrepancies in the price movements of tangible assets held by nonfinancial corporations and of corporate stock, discrepancies which lead to changes in the ratio of the replacement value of tangible assets of nonfinancial corporations to the market value of their outstanding issues.

b. Total Issues of Nonfinancial Corporations

In the United States, as in all other countries that now possess a developed financial structure, the only important financial instruments in existence were, until well into the nineteenth century, money (in the form of coins and bank notes), short-term trade credit, long-term farm and urban mortgages, and government securities; the only important financial institutions were banks of issue and commercial banks. A few other financial instruments and institutions existed, but they are of interest more as harbingers of things to come than because of their contemporary importance in the economic process.

By 1840, which may be regarded as close to the starting point of the modern financial development of the United States, all financial assets were equal to less than one-half of national wealth and to nearly one and

TABLE 2-2

The Supply of Stock of Nonfinancial Corporations, 1840–1952

(*figures in columns 1–8 are in billions of dollars; figures in columns 9–12 are percentages of GNP*)

	Issues Outstanding[a]				Net Issues[b]				Issues Outstanding		Net Issues	
	Total (1)	Stocks (2)	Bonds (3)	Other Debt (4)	Total (5)	Stocks (6)	Bonds (7)	Other Debt (8)	Total (9)	Stocks (10)	Total (11)	Stocks (12)
1840	0.3	0.1	0.1	0.1					18	6		
1860	1.5	0.7	0.5	0.3	1.1	0.5	0.4	0.2	39	18	2.0	0.9
1880	9.0	4.0	3.0	2.0	7.2	3.0	2.5	1.8	86	38	5.0	2.0
1900	26.2	11.2	7.1	7.9	15.0	5.0	4.1	5.9	132	56	5.6	1.9
1912	65.2	32.0	18.1	15.1	23.0	4.8	11.0	7.2	182	89	7.0	1.5
1922	129.5	65.1	24.5	39.9	37.6	6.4	6.4	24.8	175	88	6.0	1.0
1929	261.0	164.7	36.3	60.0	42.5	10.6	11.8	20.1	253	160	6.4	1.6
1939	155.2	89.2	31.4	34.6	−26.4	3.8	−4.9	−25.4	171	100	−3.4	0.5
1945	218.4	130.2	23.6	64.6	24.0	1.8	−7.8	30.0	103	61	2.0	0.2
1952	361.8	193.1	44.1	124.6	90.7	10.2	20.5	60.0	105	56	4.7	0.5

Notes to Table 2-2

SOURCES:

Cols. 2–4.	1840, 1860:	Based on data on *Hunt's Merchants Magazine*, 1863, p. 354 (for columns 2 and 3).
	1880:	Rough estimate.
	1900–52:	*Studies in the National Balance Sheet*, Vol. II, pp. 42 ff.; after deduction of value of stock of financial institutions (Table 5).
Col. 6.	1860–1900:	Rough estimates.
	1900–45:	R. W. Goldsmith, *A Study of Saving*, Vol. III, Princeton, Princeton University Press, 1956, p. 496 ff.
	1946–52:	Board of Governors of the Federal Reserve System, *Flow of Funds Accounts 1945–1967*, 1968, p. 35.
Cols. 7, 8.	1840–1952:	First differences of outstandings.

[a] Market value for stock; face value for debt.
[b] Period ending with year indicated.

one-half times GNP, while the share of financial institutions in total financial assets outstanding was in the neighborhood of one-fifth (Table 2-2). At that time nonfinancial corporate issues probably accounted for less than one-fifth of all financial instruments outstanding. These low ratios—low compared with similar measures for later dates—reflect the then predominant identity between savers and investors, particularly in the private sector of the economy; and the consequent relatively small importance of external financing outside of the governmental sphere. The low ratios for private external financing indicate the predominance of interfamily and neighborhood transactions over financing by institutions or through the open capital market.

The great changes in the position of corporate securities in the American economy came in two spurts. The first occurred in the 1840's and 1850's when the railroads for the first time generated a large supply of corporate bonds and stocks because of their reliance on external financing through security issues, which in turn was connected with their substantial requirements for long-term funds. The second spurt took place in the period from 1880 to World War I. Incorporation now became predominant in the rapidly expanding manufacturing and mining and the new electric power and communication sectors, again sharply increasing the supply of corporate bonds and stock. As a result, the value of all nonfinancial corporate issues (stocks, bonds, and other debt) increased from an almost insignificant amount in 1840 (apparently of the order of $200 million to $300 million) to over $8 billion in 1880, over $25 billion in 1900, and about $65 billion in 1912. Nonfinancial corporate issues outstanding thus accounted for approximately two-thirds of all financial instruments issued by nonfinancial sectors in 1912. They had become, since the third quarter of the nineteenth century, the largest single group of nonfinancial issues, ahead of the government, financial institutions, and households.

Corporate stock issues (both of nonfinancial and of financial corporations and including intercorporate holdings), which are of particular interest here, increased equally rapidly, from less than $1 billion in 1860 to approximately $4 billion in 1880, $14 billion in 1900, and $38 billion in 1912. Stocks listed on the New York Stock Exchange meanwhile increased from less than $1.5 billion in 1880[4] to nearly $5 billion in 1900, and $13.5 billion in 1912.[5] These figures indicate a share of listed to total stock of fully one-third without substantial changes over the period.[6]

The sharp upward trend in the supply of nonfinancial corporate issues continued until 1929. Total value doubled between 1912 and 1922 and again doubled in the seven years 1923 to 1929. About two-fifths of the increase in the first period (as in 1901–12), but two-thirds in the second period, represented stock price increases rather than net issues. During the 1930's the value of corporate issues outstanding actually decreased sharply by nearly 50 percent. In the case of stock, the result reflects chiefly the fall in prices, but for debt issues, it represents mainly net retirements, which amounted to about one-third of the outstandings of 1929. The increase in the value of corporate securities outstanding resumed in the 1940's and accelerated in the 1950's as the result of sharp increases in stock prices in the face of a very low volume of net issues and of very heavy net new issues of debt.

These movements are more usefully followed in terms of national product than in absolute numbers. It is then found that the ratio of the value of issues of all types by nonfinancial corporations to national product increased very rapidly between 1840 and 1880, more than doubling every twenty years, and exceeded 85 percent of GNP in 1880. The upward trend continued, though at a slower pace, for the next forty years, bringing the ratio to 180 percent of GNP in 1912, equally divided between equity and debt issues. (By comparison, the share of stocks had moved from one-third to two-fifths between 1840 and 1900.) A sharp increase followed in the late 1920's and an even sharper decline

[4] Read off from chart in A. Cowles 3rd and Associates, *Common Stock Indexes 1871–1937*, p. 54.

[5] Goldsmith, *Financial Intermediaries*, Appendix Table F-4 (mimeographed).

[6] At the end of 1929 the value of stock listed on the New York Stock Exchange, $65 billion (R. Meeker, *The Work of the Stock Exchange*, New York, Ronald Press, 1930, p. 546), was equal to 35 percent of all corporate stock, including intercorporate holdings, and 45 percent excluding intercorporate holdings.

in the 1930's and during World War II, both, until the end of the 1930's, reflecting mainly stock price movements. As a result, nonfinancial corporations' securities in 1945 were equal to only one year's GNP, a level they had crossed as far back as 1890. For stocks alone the ratio was slightly above 60 percent, the level of the early 1900's, while the bond ratio, at less than 40 percent, was back to the 1880 level. (The relations were still approximately the same in 1952.) Thus far had the process of nonfinancial corporate debt shrinkage gone as the result of both the debt reductions of the 1930's and the economic expansion and repressed inflation of World War II.

More relevant to an evaluation of the importance of the supply of corporate issues is the ratio over a period of net issues to national product because it takes account of the growing size of the American economy and is not affected directly by stock price movements. This ratio rose sharply during the second half of the nineteenth century—from only 2 percent in 1841–60 to an average of 7 percent during the first three decades of this century, of which slightly less than 1½ percent represented stock of nonfinancial corporations. The latter level has never been equaled since.

These are the facts. What is the explanation? The explanation must be sought, along the lines of the formula of section 3b of Chapter 1, in three factors: (1) the movement of the national capital formation ratio; (2) the share of nonfinancial corporations in national capital expenditures; and (3) the share of external in total financing by corporations, the last two factors being linked by (4) the ratio of total (external and internal) financing to capital expenditures.

Very little is known reliably about these relations for the nineteenth century, and the estimates available for later periods are far from satisfactory until the 1930's or even the 1940's. There is little doubt, however, that between 1840 and 1900 both the national capital formation ratio, and particularly the share of corporations in it, rose substantially. These two movements explain part, and possibly a large part, of the rise in the observed ratio of the issues of nonfinancial corporation to national product, from a level of about 2 percent in the middle of the nineteenth century to over 6 percent at its end. Apparently neither of these two ratios had a substantial upward trend during the current century, or even since the 1880's, nor has the ratio of nonfinancial corporate issues to gross national product (valuation changes excluded). Indeed, the ratio has been lower since 1930 than in the preceding thirty or even seventy years. We must, therefore, turn for further explanation to the ratio of external financing, and of equity financing in particular, to capital expenditures of nonfinancial corporations.

It is not possible without some degree of arbitrariness to match capital expenditures with specific forms of issuance of debt and equity securities or even with total external financing in the statistics of sources and uses of funds, particularly if the accounts are as highly aggregated as to cover all nonfinancial corporations. Therefore, the measure of the importance of external financing and of stock financing in particular must be the share of total external financing and its components in total sources of funds.

TABLE 2-3

Sources of Funds of Nonfinancial Corporations, 1901–52

Sources	1901 to 1912 (1)	1913 to 1922 (2)	1923 to 1929 (3)	1930 to 1939 (4)	1940 to 1945 (5)	1946 to 1952 (6)	1901 to 1952 (7)
I. Total sources of funds (billions of dollars)							
1. Period total	40.0	76.1	86.1	28.3	75.4	201.8	507.7
2. Annual average	3.3	7.6	12.3	2.8	12.6	28.8	9.8
II. Individual sources (percent)	100	100	100	100	100	100	100
1. Internal sources	55	60	55	114	80	58	64
a. Retained profits	22	27	17	−71	32	31	22
b. Capital consumption allowances	34	34	37	184	49	27	42
2. External sources	45	40	45	−14	20	42	36
a. Borrowing[a]	10	20	12	−32	20	27	18
b. Bonds and notes	21	9	14	−1	−5	10	9
c. Stock	14	11	19	19	5	5	10
III. Gross capital expenditures (billions of dollars)	26.1	49.4	51.1	31.2	40.9	149.1	347.8
Percent of I	65	65	59	110	54	74	69

SOURCES:
1901–45: R. W. Goldsmith, *Financial Intermediaries in the American Economy Since 1900*, Princeton, Princeton University Press for NBER, 1958, p. 222.
1946–52: *Flow of Funds Accounts 1945–1967*, p. 35.

[a] Excluding 2b.

The essential figures for the period from 1900 to 1952 are shown in Table 2-3. It is there seen that gross capital formation for the period as a whole absorbed fully two-thirds of total funds of all nonfinancial corporations taken together, the ratio deviating substantially from this level only during the 1930's. The remaining funds were utilized to acquire financial assets, primarily cash, trade receivables, and securities held for liquidity, yield, or control.

Of the total funds raised by nonfinancial corporations during this half-century, fully three-fifths came from internal sources, primarily earned depreciation allowances and secondarily retained earnings. It is the remaining third—a total of more than $180 billion from 1901 through 1952—representing external financing, that may be regarded as the matrix of the volume of issues of stock by nonfinancial corporations. The ratio of external to total financing was close to two-fifths in the three periods distinguished between 1901 and 1929 although, of course, there were substantial short-term fluctuations. The ratio, which had been very low between 1930 and 1945, returned to the earlier level after World War II.

There are, unfortunately, no comprehensive data available on the financing of nonfinancial corporations before 1900. For the then most important single industry, the railroads,[7] the share of external financing apparently was considerably higher, at least from 1880 on, than it was after the turn of the century for all nonfinancial corporations. Thus, from 1880 to 1907 the retained earnings of railroads accounted for only 5 percent of their total sources of funds, and no contribution was made by capital consumption allowances.[8]

Data are lacking to calculate the ratios separately for the main industries even for most of this century. The ratios for large corporations in manufacturing and mining[9] seem to have been close to the overall ratio for all nonfinancial corporations. Among the other industries it is fairly certain that the external financing ratios were higher than the average for public utility and real estate corporations and lower than the average for corporations in trade and service. For the end of the period, the years

[7] Both in 1870 and in 1890 railroads accounted for approximately one-fifth of the dividends paid by all nonfinancial corporations, which may give a reasonable idea of their relative importance, although it is very likely that the railroad's share of external financing was considerably higher than this ratio. (See A. J. Schwartz, "Gross Dividend and Interest Payments by Corporations at Selected Dates in the 19th Century," in *Trends in the American Economy in the Nineteenth Century*, Studies in Income and Wealth, Vol. 24, Princeton, Princeton University Press for NBER, 1960, pp. 417–18.)

[8] See Ulmer, *op. cit.*, p. 502.

[9] See S. Kuznets, *Capital in the American Economy: Its Formation and Financing*, Princeton, Princeton University Press for NBER, 1961, p. 251.

1945–52, when some relevant data are available, the external financing ratio was about 55 percent for large corporations in the public utility and railroad industries compared with 30 percent for large manufacturing corporations.[10]

c. The Share of Stock Issues in External Financing of Nonfinancial Corporations

The crucial fact here is how far total external financing needs, which were determined by expansion of activities and possibilities of internal financing—and, of course, were also influenced by the ease or difficulty of external financing—were met by the sale of corporate stock rather than by short- or long-term borrowing. In this case there is a definite break between the experience of the first four decades of this century, during which the sale of corporate stock contributed on the average one-sixth of total external financing (Table 2-3), with a range from one-ninth to almost one-fifth for the four periods, and that of the 1940–52 period, when the contribution was as low as 5 percent. No overall figures are available for the nineteenth century, but it is likely that the share of corporate stock in external financing by nonfinancial corporations during the second half of the century was at least as high as the 1900–40 level and may have been considerably higher. In the case of the railroads, stock outstanding constituted about 55 percent of total external financing in 1855, 50 percent in 1880, and 40 percent in 1900.[11]

While comprehensive information on the total volume of external financing and the issuance of stock by the different industries is lacking, it is possible to obtain a rough idea of the distribution of the stock outstanding among the main industries at several benchmark dates between 1835 and 1952. These ratios, of course, are not identical with the distribution of funds raised through the sale of stocks because they are influenced by differentials in stock price movements among industries. Furthermore, for the last decades of the nineteenth century the distribution of dividends paid by different industries must be used rather than the market value of their stock outstanding, and the two distributions again are not identical because the price-dividend ratio differs for the stock of different industries. The main trends appearing in Tables 2-4 and 2-5 should nevertheless roughly reflect the distribution of stock financing among the main industries, even though the three sources used for different parts of the period are far from being fully comparable.

[10] See Goldsmith, *Financial Intermediaries*, p. 229 ff.

[11] See Bureau of the Census, *Historial Statistics of the United States, Colonial Times to 1957*, 1960, pp. 428, 433.

TABLE 2-4

Industrial Distribution of Corporate Stock Outstanding 1835–1949

(*percent*)

Industry	1835 (1)	1859[a] (2)	1871 (3)	1890 (4)	1900 (5)	1912 (6)	1922 (7)	1929 (8)	1939 (9)	1949 (10)
1. Railroads	2	15	19	20	39	26	10	6	4	3
2. Other transportation	7	8	5	3	7[b]	7[b]	5[b]	11[b]	12[b]	10[b]
3. Gas and electricity	0	5	4	8						
4. Banks and insurance	64	39	26	21	20	15	16	11	9	8
5. Manufacturing and mining	18	24	38	39	34	52	69	72	75	79
6. Other	9	9	8	9						
7. Total	100	100	100	100	100	100	100	100	100	100

SOURCES:

Cols. 1–4. Based on distribution of dividends as estimated by A. J. Schwartz, "Gross Dividend and Interest Payments by Corporations at Selected Dates in the 19th Century," in *Trends in the American Economy in the Nineteenth Century*, Studies in Income and Wealth, Vol. 24, Princeton, Princeton University Press for NBER, 1960.

Cols. 5–10. Based on estimated market value in *Financial Intermediaries*, Appendix F.

[a] 1860 alternate, and for some groups substantially different, estimates of the value of corporate stock (rather than dividends), may be derived from *Hunt's Merchants Magazine*, 1863, p. 23. According to these estimates, railroads accounted for 45 percent of the total, public utilities for 13 percent, and banks and insurance companies for 44 percent, no entries being shown for corporations in manufacturing, mining, trade, and service.

[b] All public utilities except railroads.

TABLE 2-5

The Supply of Stock of Financial Institutions, 1840–1952

(*$billion*)

	Total (1)	Federal Reserve Banks[a] (2)	Commercial Banks[b] (3)	Property Insurance Companies[b] (4)	Federal Home Loan Banks[a] (5)	Investment Companies[c]: Open End (6)	Investment Companies[c]: Other (7)	Total Percent of Stock of Nonfinancial Corporations[b] (8)
1840	$0.33	—	$0.29	$0.04	—	—	—	330%
1860	0.49	—	0.42	0.07	—	—	—	70
1880	1.00	—	0.90	0.10	—	—	—	25
1900	2.70	—	2.40	0.30	—	—	—	24
1912	6.00	—	5.00		—	—	—	19
1922	11.00	$.33	9.20		—	—	—	17
1929	22.00	.45	15.80	3.10	—	$0.13	$2.52	13
1939	10.90	.35	6.10	2.80	$.17	0.53	0.95	12
1945	16.47	.59	9.30	3.80	.20	1.30	1.28	13
1949	17.69	.83	8.20	4.20	.23	3.10	1.13	13
1952	26.36	.97	13.00	6.00	.32	3.90	2.17	14

SOURCES:

Col. 1. Sum of columns 2 to 7 supplemented by rough estimates for groups for which no figures were available for some dates.

Col. 2. *Federal Reserve Bulletin.*

Col. 3. 1840–60: *Hunt's Merchants Magazine*, 1863, p. 23 (also for column 4).
1880: Rough estimates.
1900–49: *Financial Intermediaries*, Appendix Table F-29.

Col. 4. 1900, 1929, 1949: *Ibid.*, Appendix Tables F-5 to F-7.
1939, 1945, 1949: Rough estimates, based mainly on movements in Standard and Poor's index of fire insurance stocks. (The 1952 estimate in columns 3 and 4 is substantially above an alternative, and probably more reliable, figure in an annual series used in Chapter III for the period 1952–1968, the derivation of which is described in Appendix VI. This alternative estimate has not been used here in order not to destroy the continuity and comparability of the estimates for the earlier period.)

Col. 5. 1939–52: United States Savings and Loan League, *Savings and Loan Fact Book*, various issues.

Notes to Table 2-5 (concluded)

Col. 6. 1929, 1939:	*Study of Saving*, Vol. I, p. 559.
1945–52:	*Flow of Funds Accounts 1945–1968*, 1970, p. 64.
Col. 7. 1929–52:	Net worth of all investment companies (*Financial Intermediaries*, p. 396) less column 6.

[a] Book value.
[b] Market value.
[c] Assets or net worth of companies.

The main structural change in the distribution of corporate stock among industries, and hence in the volume of stock of nonfinancial corporations available for acquisition by financial institutions, is the declining share of banks and property insurance companies in the total of all corporate stock issued and outstanding (see the discussion in the following section). This movement reflects not a decline or even a stagnation in the volume of stock of financial corporations issued or outstanding, but rather, an increase in the use of the corporate form in almost all other sectors of business and the more rapid rate of growth of the equity of some important nonfinancial sectors, particularly manufacturing and public utilities.

Among nonfinancial corporations an outstanding movement is the rapid rise in the share of railroads from about 1840 to the end of the century.[12] The share of all public utilities other than railroads did not show a long-term trend, although it varied between a low of 5 percent (1922) and a high of around 12.5 percent (1859, 1939). Within this category, however, distribution among industries changed radically. The figures were dominated in the nineteenth century first by the shares of canal companies and then by those of gas companies. Since World War I, on the other hand, most of the share has been accounted for by electric power and telephone companies. The result is that the "other" category, which in the twentieth century is represented mostly by shares of manufacturing (including oil) companies, accounted for about four-fifths of the total in 1949 compared with three-tenths to three-fifths before World War I.

[12] The increase in the share of railroads between 1890 and 1900 shown in Table 2-4 is overstated because the estimate for the first date is based on the railroads' share in total dividends paid while that for the second date is derived from estimates of the market value of the shares of different industries. The price-dividend ratio probably was higher for railroads than for all other nonfinancial industries taken together.

d. The Supply of Stock of Financial Corporations

Financial institutions may, of course, also invest in the shares of other financial institutions, of their own or of a different type. Indeed, in the latter case, the advantage of control may be an important added incentive for holding. These securities have widened the supply of corporate stock available to financial institutions, though not to a decisive extent since World War I. During the nineteenth century, however, the situation was different. Thus in 1840 the value of the stock of banks and insurance companies was estimated at three times that on nonfinancial corporations, and the ratio seems to have been in the neighborhood of two-thirds in 1860.[13] By the turn of the century the ratio had declined to below 30 percent, and in 1912 it had fallen to about 20 percent. After a further slow decline during the following quarter century, the ratio stabilized at around one-eighth of the value of the stock of nonfinancial corporations; the increasing ratio for open-end investment company stock approximately offset the continuing decline in the ratio for bank and insurance company stock. The relevant figures are shown in Table 2-5.

This secular decline in the proportion of the total supply of corporate stock that consists of shares of financial institutions is due primarily to the downward trend in the ratio of net worth to liabilities in virtually all types of financial institutions other than investment companies. In commercial banks, for example, net worth was equal to fully 50 percent of liabilities in 1860, less than 20 percent in 1900, less than 15 percent in 1929, and only 7 percent in 1952.

e. Foreign Stocks

Shares in financial or nonfinancial foreign companies have played a negligible role in the portfolios of financial institutions as a whole, and in that of each type except investment companies. Even for these companies the proportion probably never exceeded one-tenth of the total stock portfolio and consisted mostly of stocks in Canadian companies. In 1952 the ratio was down to less than 4 percent for open-end companies, almost exclusively in Canadian stocks. This has been due both to statutory limitations against foreign investment except in Canada and to the then prevailing unpopularity of foreign securities. Foreign stocks may, therefore, be excluded when considering the supply of corporate stock on which financial institutions could draw. In 1952 they probably constituted only about 1 percent of the stock portfolio of all financial institutions excluding

[13] *Hunt's Merchants Magazine*, 1863, p. 313 ff.

personal trust funds, and less than one-half of 1 percent including them.

3. THE SOURCES OF FUNDS OF FINANCIAL INSTITUTIONS

Before looking at the movements of the main determinants and their contribution to the value of the new-issue ratio of financial institutions (the ϕ ratio of Chapter 1, which is approximated by the change in the assets of financial institutions divided by the period's total gross national product), it is well to recall the path which that ratio has taken from 1840 to 1952, particularly its fairly regular upward trend, which has carried it from not much more than 1 percent of GNP, in the period 1841 to 1860, to 2.3 percent in the following two decades, 4.2 percent from 1881 to 1900, and to 5.2 percent in the period 1901–12. Since then the ratio has been at a considerably higher level, except during the 1930's, when it fell back to 4.3 percent. For the periods 1913–22 and 1923–29 the ratio averaged close to 8 percent. The peak was reached during World War II, with nearly 20 percent. This was followed by a sharp decline to 7 percent in 1946–52 (Table 2-6).

a. The Issuance of Money

The first main component of ϕ (the ratio, m, of the change in money in circulation—i.e., currency and check deposits—to the period's gross national product) increased from less than 0.5 percent of GNP in the 1840's and 1850's to 0.7 percent in the following two decades. This advance continued, the average for 1881–1900 rising to 1.2 percent and further advancing to a peak level of 2 percent for 1913–22. These forty years are the period of the most rapid development of the commercial banking system and of check payments, influenced near the end by the inflation of World War I. There followed a sharp decline to one-half of 1 percent in the period 1923–29, i.e., below the level of 1861–80, probably representing in part absorption of excess liquidity created during World War I. The value of m again rose sharply during the 1930's to an average of 1.2 percent, reflecting the only partly successful efforts of the government at reflation and the public's hoarding that accompanied the very low level of interest rates during the mid- and late 1930's. World War II led to an extraordinary increase in m—to an average of more than $6\frac{1}{2}$ percent for 1940–45, a result in part of the repressed inflation of that period which was backed by price and wage controls. As after World War I, m declined sharply to 1.3 percent for the period 1946–52, reflecting the accumulation of excess liquid assets in preceding years.

TABLE 2-6

Determinants of Growth of Assets of All Financial Institutions in the United States, 1861–1952

(*percent of gross national product*)

	Net Issues of:					
	Money[a] (1)	Commercial Bank Time Deposits (2)	Thrift and Insurance Organizations[b] (3)	Total (4)	Change in Assets of All Financial Institutions[c] (5)	Ratio: Col. 4 to Col. 5 (6)
1861–1880	0.7	0.1	0.9	1.7	2.3	.74
1881–1900	1.4	0.4	1.3	3.1	4.2	.74
1901–1912	1.4	1.1	1.7	4.2	5.2	.81
1913–1922	1.9	1.4	1.7	11.0	7.5	.67
1923–1929	0.5	1.0	3.2	4.7	8.0	.59
1930–1939	1.3	−0.5	2.5	3.2	4.3	.74
1940–1945	6.7	1.5	5.1	13.3	19.4	.69
1946–1952	1.3	0.5	4.7	6.5	7.0	.93

[a] Bank notes held by public plus adjusted demand deposits (from 1880, M. Friedman and A. J. Schwartz, *A Monetary History of the United States, 1867–1960*, Princeton, Princeton University Press for NBER, 1963, p. 704 ff.); rough estimates for 1860.
[b] Increase in total assets of mutual savings banks, postal savings system, saving and loan associations, credit unions, and all insurance and pension organizations (*Financial Intermediaries*, pp. 73–74, and rough estimates for 1861–1900).
[c] *Ibid.* Excludes personal trust departments and investment holding companies.

The share of the issuance of money in total issues of financial institutions, i.e., the ratio m/ϕ, followed the same general pattern, but with fewer fluctuations during the nineteenth century. For all the four periods between 1860 and 1922 m constituted approximately three-tenths of ϕ and thus was one of the two most important single components of the ratio. During this period, which extends from the beginning of the railroad age through World War I, the provision of the medium of exchange was still one of the most important, if not the most important, single function of the country's financial system, as it still is in many less developed countries. The share of m in ϕ was considerably lower from 1923 to 1929. The repressed inflation of World War II raised the share of m in ϕ to an all-time peak of fully one-third. The share then declined sharply to about one-fifth in 1946–52.

b. Household Thrift Claims

The most important single component of the ϕ ratio in all periods except during World War II were thrift deposits (including time and saving deposits with commercial banks) and insurance and pension claims of households. Starting with a ratio in the neighborhood of 1 percent of national product in 1860–80, h (the ratio of the increase in thrift deposits and insurance claims to gross national product) rose steadily to fully 4 percent during 1923–29. After a temporary setback to 2 percent during the 1930's, h held close to a level of about 6 percent from 1940 to 1952. The share of h in ϕ rose from about two-fifths from 1860 to 1900 to about one-half in the first thirty years of the twentieth century. Reflecting the extraordinarily high share of m during World War II, the share of h in ϕ during that period was low—about one-third. Possibly the most significant development, however, is the sharp increase in the h/ϕ ratio to three-fourths in 1946–52, in part problably in reaction to the abnormally low ratio during the preceding five years, significant because it foreshadows the continued high level of the ratio that prevailed for the following fifteen years.

The statistics now available are not sufficient to allocate the observed values to the h ratio exactly among the four components distinguished in Chapter 1, section 3b. Enough is known, however, for an appraisal of the order of magnitudes involved.

Since two of these components—the ratio of personal disposable income to gross national product (p) and the personal saving ratio (s)—did not show a pronounced trend over the last 100 to 120 years, or at least not since the turn of the century (p has declined slowly from 0.85 to 0.70 and s has remained close to one-eighth except during the two world wars and the 1930's), the crucial factor in the contribution which h made to ϕ were the movements of the share of the accumulation of financial assets in personal saving (c) and the share of thrift deposits and insurance claims in personal financial saving (t).

Of these two factors, changes in t have been the more important and regular element: The ratio has risen from about one-fourth of personal financial saving in the first two decades of this century to two-fifths in 1923–29, and to fully two-thirds since the 1930's, with the exception of World War II. It may therefore be said that most of the increase of ϕ from a level of about 1 percent in the last forty years of the nineteenth century to about 5 percent in the 1946–52 period is due to the increase in saving through household thrift claims, a relation that will be found also to apply to the following fifteen years.

c. Other Sources

The movements of the ratio (x) of the issue of nonmonetary liabilities other than household thrift deposits and insurance claims by financial institutions to GNP (calculated as the difference between columns 4 and 5 in Table 2-6), as well as its contribution to ϕ, were erratic, partly because of the heterogeneous nature of this item. This component of ϕ was relatively most important in the periods 1923–29 and 1940–45. It amounted to 2.5 percent of GNP in both periods, but to less than one-third and one-eighth respectively of ϕ. The relatively high level of x during the 1920's reflected in part the rapid growth of the then new investment and finance companies. Their shares might well be combined with household thrift claims, since most of the former were bought by individual investors.

The issuance of equity securities by financial institutions, which is included in x except for the shares of insurance companies, has been a minor component of ϕ since 1900. (Comprehensive figures are not available for the earlier periods.) On the average, issues of equity securities by financial institutions have amounted to only three-quarters of 1 percent of GNP, reaching the maximum of $1\frac{1}{4}$ percent in 1923–29 when fairly large amounts of investment company stock were sold to the public. The share of equity securities in ϕ has been declining. During the second half of the nineteenth century it probably was about one-fourth. In 1901–12 and 1922–39 it amounted to about one-sixth, falling to about one-tenth in 1946–52.

From the fragmentary knowledge which we have about the extent of layering within financial institutions it does not appear that the layering ratio has shown substantial or continuous trends during the past century. In any case, the level of the ratio, approximately one-tenth, is too small for modest changes in it to influence the level of ϕ.

4. THE STOCK PORTFOLIO OF FINANCIAL INSTITUTIONS

a. Commercial Banks

Although commercial banks are the largest single group of financial institutions if measured by size of assets, they have hardly ever been important holders of corporate stock.[14] This fact is mostly due to regulation. National banks are virtually precluded from owning corporate stock

[14] Excluding, of course, their trust departments, for which see section 4h.

except that of the Federal Reserve banks. While the regulations are not as strict in many states, they still severely limit the freedom of state-chartered banks to invest in corporate stock even if they desire to. The holdings of the stock of Federal Reserve banks are, of course, in a category of their own, since they are compulsory for member banks, and in character are closer to a perpetual bond than to a corporate equity because of their guaranteed but limited dividend and the restricted right of member banks in the equity of the Federal Reserve banks.

In the century before 1939, holdings of common stock excluding those of Federal Reserve banks constituted between 1 and 1½ percent of the total assets of commercial banks, reaching the highest absolute and relative level in 1929 (Table 2-7). Unfortunately the make-up of these stock portfolios is not known before the Great Depression, an indication of their

TABLE 2-7

Holdings of Corporate Stock by Commercial Banks, 1860–1952

	Stockholdings ($million)			Stock Other Than FRB Stock	
	All Stock (1)	Federal Reserve Banks[a] (2)	Other (3)	Percent of Total Bank Assets (4)	Percent of All Stock Outstanding (5)
1860	10	—	10	(1.20)	1.30
1880	30	—	30	(1.10)	0.60
1900	103	—	103	1.03	0.74
1912	284	—	284	1.30	0.75
1922	508	107	401	0.84	0.53
1929	1,180	171	1,009	1.52	0.54
1939	609	136	473	0.71	0.47
1945	397	177	220	0.14	0.15
1952	403	253	150	0.08	0.07

SOURCES:
Col. 2. *Federal Reserve Bulletin.*
Col. 3. 1860, 1880: Rough estimates.
1900–1939: *Financial Intermediaries*, pp. 339, 353.
1945–52: *Studies in the National Balance Sheet*, Vol. II, p. 162.

[a] Par value. Book value in balance sheets of Federal Reserve banks (millions of dollars): 1922: 326; 1924: 448; 1939: 349; 1945: 587; 1952: 972.

insignificance. A substantial proportion probably consisted of stock of real estate, safe deposit, and similar operating affiliates, although some holdings of stocks of other banks were undoubtedly acquired for possible control. In 1934, when the book value of the holdings of stock other than that of Federal Reserve banks had been reduced to one-half of its 1929 level, approximately one-fifth of the total consisted of stocks of banks and bank affiliates, and one-seventh, of stock in real estate corporations. The remaining two-thirds were not further broken down. In 1941, the only other date for which this information is available, the proportion of stocks of banks and bank affiliates had increased to over two-fifths because of a sharp reduction in other holdings of corporate stock by commercial banks, but their absolute value was only about one-third higher than in 1934.[15] The stockholdings of commercial banks were even less important in comparison with the total volume of stock outstanding, accounting for only one-half of 1 percent of the total in 1929 and for only slightly higher fractions before World War I.

During World War II the book value of the holdings of corporate stock other than that of Federal Reserve banks was cut in half, and no details are known about this development. Since the total value of commercial bank assets increased sharply, the share of corporate stock (excluding Federal Reserve bank stock) in total assets fell precipitously from slightly more than 1 percent in 1939 to only one-seventh of 1 percent in 1945, and to less than one-tenth of 1 percent during the 1950's. Similarly, the importance of stockholdings of commercial banks, other than those of Federal Reserve banks, in total corporate stock outstanding has now been reduced to insignificance, falling to about 0.15 percent in 1945—compared with over 0.50 percent in 1929—and further declining to not much over 0.05 percent beginning with the late 1950's.

b. Mutual Savings Banks

During the late nineteenth century mutual savings banks held between 3 and 5 percent of their assets in corporate stocks, consisting mainly of a diversified portfolio of bank stocks (Table 2-8). At that time the bank stocks they held represented between 3 and 4 percent of all outstanding bank stocks in the United States, but a considerably higher proportion of the stock of banks in the states in which mutual savings banks operated, mainly the New England states, New York, and Pennsylvania. The motive for these holdings probably was the relatively high yield combined with fair security.

[15] Federal Deposit Insurance Corporation information.

TABLE 2-8

Stockholdings of Mutual Savings Banks, 1880–1952

	All Stock ($million)	Bank Stock ($million)	All Stock (percent of bank assets)	Bank Stock (percent of bank assets)	All Stock (percent of stock outstanding)	Bank Stock (percent of stock outstanding)	All Stock: Net Purchases[a] ($million)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1880	40	37	4.52	4.22	.98		
1900A	83	40	3.57	1.69	.60	1.67	
1900B	43		1.77		.31	1.79[b]	
1912	41		1.02		.11	0.82[b]	−2
1922	48		0.73		.06	0.52[b]	7
1929	77		0.78		.04	0.49[b]	29
1939	136		1.15		.14	2.23[b]	59
1945	166	116	0.98	0.68	.11	1.25	30
1952	334	280	1.33	1.11	.15	2.15	100

SOURCES:

Cols. 1, 2. 1880–1900A: Estimated on basis of figures for six main states (New York, Massachusetts, Connecticut, Maine, New Jersey, and Rhode Island) taken from reports of their bank supervisory authorities.

1900B–39: *Financial Intermediaries*, pp. 356–57.

1945, 1952: National Association of Mutual Savings Banks, *National Fact Book of Mutual Savings Banking*, May 1969, p. 23 (book value less valuation reserve).

Col. 7. 1901–45: *A Study of Saving*, Vol. I, pp. 545–46.

1945, 1952: *Flow of Funds Accounts 1945–1967.*

[a] Period ending at date indicated.

[b] Assuming virtually all stock to be bank stock.

From the turn of the century to 1922, however, the value of stocks held by mutual savings banks hardly changed, although their assets almost tripled. There is no obvious explanation for this change in their investment policy, except possibly the upward trend in interest rates which made the yield of bank stocks relatively less attractive. As a result, the share of bank stocks in the total assets of mutual savings banks fell to about three-fourths of 1 percent, while their holdings were reduced to about one-half of 1 percent of all bank stock outstanding in the United States.

Policy apparently was again reversed after 1929, and the portfolio of bank stocks was increased considerably during the 1930's, but only slowly during World War II. As a result, the share of bank stocks in total assets of mutual savings banks in 1945 stood at approximately 1 percent, compared with 0.8 percent in 1929, although their share in all bank stocks outstanding had risen substantially, from one-half of 1 percent to about 1¼ percent.

After 1945 mutual savings banks began to increase their stock portfolio, now for the first time acquiring considerable amounts of stocks of corporations other than banks. In 1952 this process was still in its initial stages, but the total value of all stocks was already twice as high as in 1945; the share of stocks in total assets was up from 1.0 to 1.3 percent; and the share of bank stocks held by mutual savings banks in all bank stock outstanding had increased from 1.3 to 2.2 percent.

c. Life Insurance Companies

The influence of statutory requirements on stockholdings is particularly evident in the case of life insurance companies, especially during the current century. Originally the limitations of investment in stocks by life insurance companies were not very strict, but because of the fixed value of the liabilities the companies held only moderate amounts, accounting for only approximately 2 percent of assets in the period 1860–80 (Table 2-9). Of these holdings fully one-fourth consisted of railroad stocks; among the others bank stocks appear to have played an important role, although exact figures are not available.

From about 1880 to 1905 stockholdings of life insurance companies increased substantially. Railroad and, later, public utility stocks presumably were acquired primarily for yield, but bank stocks were purchased by the large eastern life insurance companies also because of the influence and other advantages which they could give. The abuses in this direction, which were disclosed by the Armstrong-Hughes investigation of 1905, led to legislation that sharply limited the stockholdings permitted to companies operating in New York State and were a decisive factor in the investment policies of all American companies. For almost two decades after, the absolute volume of stocks held stagnated, and their share declined sharply in the face of a rapid advance in the total assets of life insurance companies. Whereas life insurance companies at the peak of 1906 had held more than 6 per cent of their total assets in stocks, the proportion had declined to only 1 percent by 1922. The proportion of all corporate stock outstanding held by life insurance companies always was

TABLE 2-9

Stockholdings and Transactions of Life Insurance Companies, 1860–1952

	Holdings									Net Purchases[a]		
	Total	Preferred	Common	Total	Preferred	Common	Total	Preferred	Common	Total	Preferred	Common
	($ million)			(percent of total assets)			(percent of stock outstanding)			($ million)		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1860	1	—	—	2.30	—	—	(0.05)	—	—	—	—	—
1880	6	—	—	1.50	—	—	(0.10)	—	—	—	—	—
1900	62	8	54	3.56	0.46	3.10	0.45	0.28	.49	—	—	—
1912	84	12	72	1.91	0.27	1.63	0.22	0.16	.24	22	4	18
1922	75	16	59	0.87	0.18	0.68	0.10	0.12	.09	−9	4	−13
1929	352	255	97	2.01	1.46	0.55	0.19	1.33	.06	240	206	34
1939	568	435	133	1.94	1.49	0.46	0.57	3.18	.15	226	183	43
1945	1,000	820	180	2.23	1.83	0.40	0.68	6.10	.14	165	131	34
1952	2,450	1,490	960	3.30	2.01	1.29	1.12	9.28	.47	1,300	—	—

SOURCES:
Cols. 1–6. 1860–80: L. Zartman, *The Investments of Life Insurance Companies*, 1906, p. 14.
1900–1939: *A Study of Saving*, Vol. I, p. 456.
1945–52: *Studies in the National Balance Sheet*, Vol. I, pp. 174–75.
Cols. 10–12. 1901–45: *A Study of Saving*, Vol. I.
1946–52: *Flow of Funds Accounts 1945–1967.*

[a] Period ending with year indicated.

small. Even at the peak, life insurance companies' holdings amounted to less than one-half of 1 percent of all stocks outstanding and were important only in a few New York City banks. By 1922 the overall ratio was down to a mere one-tenth of 1 percent.

From the 1920's on, life insurance companies again began to build up their stock portfolios, but for several decades apparently primarily for yield and hence preferring high-grade stocks paying regular dividends. The absolute volume of stockholdings by life insurance companies increased, with few setbacks, from less than $100 million in 1922 to about $2,500 million in 1952. Their share in total assets also rose substantially, although with a marked setback during the 1930's, from 1 percent in 1922 to fully 3 percent in 1952. Similarly, the share of stockholdings of life insurance companies in all corporate stock outstanding advanced substantially, though even in the early 1950's it was only slightly above 1 percent, i.e., twice the previous maximum of the early 1900's but more than ten times the low of 1922.

The structure of the stock portfolio of life insurance companies reflects the change in emphasis from yield to appreciation (Table 2-10). The share of preferred stocks in the portfolio advanced from about one-eighth at the beginning of World War I to approximately three-fourths between the late 1920's and the mid-1940's. It then began to decline; by 1952, it had returned to the 1939 level of two-thirds. The industrial structure of the portfolio showed change in line with changes in the total supply of stock. While railroads accounted for nearly one-half of the total stock portfolio at the turn of the century, their share was down to one-fifth by 1929 and continued to decline to only 6 percent in 1952. Their share was in part taken by public utility stocks, which since 1929 have accounted for more than one-fourth of the total portfolio. Later, the share of industrials and a few other categories of stock gained considerably in the total portfolio, rising from about one-third before World War I to three-fifths at the end of World War II. These shifts were more pronounced in the composition of the portfolio of common than of preferred stocks, but changes occurred during the 1950's and 1960's rather than before 1952.

d. Property Insurance Companies

Until well into this century, property insurance companies (predominantly fire and marine companies until the turn of the century and later also casualty companies) were the only group of financial institutions that held a substantial proportion of their total assets in corporate stock; corporate stock constituted one of their most important assets, indeed in

TABLE 2-10

Distribution of Corporate Stock Held by Life Insurance Companies, Selected Dates, 1860–1945

(*percent*)

Type of Stock	1860 (1)	1870 (2)	1880 (3)	1890 (4)	1900 (5)	1906 (6)	1911 (7)	1922 (8)	1929 (9)	1939 (10)	1945 (11)
						Preferred Stock					
Railroads						10	10	18	12	10	9
Public utilities						1	1	2	26	28	23
Other						2	2	3	34	39	47
						Common Stock					
Railroads						23	35	26	8	4	3
Public utilities						11	19	12	3	5	4
Other[a]						53	32	40	17	14	14
						All Stock					
Railroads	22	27	27	58	45	33	45	44	20	14	12
Public utilities	78	73	73	42	55	13	20	14	28	32	27
Other[a]						54	35	43	52	54	61

SOURCES:
Cols. 1–5. Zartman, *Investments of Life Insurance Companies*, p. 14.
Cols. 6–11. *Proceedings of 44th Meeting of Life Insurance Association of America*, p. 42.

[a] Through 1906 mostly bank stock.

most years the most important asset, next to corporate bonds. The relative prominence of corporate stock in the portfolios of property insurance companies may be explained on the one hand by the freedom from investment limitations that determined the structure of assets of other insurance companies and many other institutional investors; and on the other hand by the fact that their liabilities were mostly of an intermediate length, so that liquidity considerations were not dominant; not only current yields but long-term chances of appreciation could be given considerable weight in investment policies.

As far back as 1860, fire and marine insurance companies held nearly one-fourth of their total assets in corporate stock, primarily in a diversified portfolio of bank stocks which accounted for seven-eighths of their entire stock portfolio (Table 2-11). This concentration probably was due, as in the case of mutual savings banks, to the high quality of bank stocks and to the absence of large corporate issuers in other industries except the railroads. At that time, fire and marine insurance companies held approximately 1 percent of all corporate stock outstanding in the United States. However, because of their concentration on bank stocks the share of property insurance companies in total bank stocks outstanding was of the order of 3 or 4 percent and was considerably higher in the case of banks in the eastern states. The share of bank stocks declined rapidly from about one-fifth of total assets in 1860 to 6 percent in 1880 and 5 percent in 1900, but that of railroad stocks advanced from only 2 percent in 1860 to 4 percent in 1880 and shot up to nearly 20 percent in 1900. As a result, the proportion of corporate stock in the portfolio of fire and marine companies had increased to fully one-fourth by the turn of the century, after a drop to not much over one-tenth in 1880, but their share in total corporate stock outstanding had fallen to about three-fourths of 1 percent, reflecting the rapid rise in stock issues during the last fourth of the nineteenth century.

The share of corporate stock in the total assets of property insurance companies did not show a definite trend throughout the current century, although it was, of course, influenced by stock price fluctuations. At most benchmark dates between 1900 and 1952—with the exception of 1922—the share was in the neighborhood of 25 to 30 percent. The most pronounced increase occurred during the 1920's as a result both of heavy net purchases and the then pronounced rise in stock prices. It is remarkable, however, that property insurance companies also added substantially to their stock portfolios during the 1930's when some other institutional investors reduced theirs. As a result, the share of property insurance

TABLE 2-11

Stockholdings of Property Insurance Companies, 1860–1952

	All ($ million)	Preferred ($ million)	Common ($ million)	All (percent of assets)	Preferred (percent of assets)	Common (percent of assets)	All (percent of stock outstanding)	Preferred (percent of stock outstanding)	Common (percent of stock outstanding)	All Stock: Net Purchases[a] ($million)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
					Fire and Marine Companies					
1860	18			22.8			1.50			
1880	25			11.5			0.50			
1900	106	25	81	25.7	6.1	19.6	0.76	0.86	0.74	
					Fire, Marine, and Casualty Companies					
1900	122	29	93	25.7	6.1	19.6	0.88	1.00	0.85	—
1912	231	45	186	23.5	4.6	18.9	0.61	0.58	0.61	109
1922	370	95	275	16.0	4.1	11.9	0.49	0.73	0.44	139
1929	1,511	276	1,235	32.7	6.0	26.7	0.81	1.44	0.74	625
1939	1,457	330	1,127	30.5	6.9	23.6	1.46	2.41	1.30	270
1945	2,415	483	1,932	31.8	6.4	25.5	1.65	3.60	1.45	450
1952	4,320	800	3,520	26.9	5.0	21.9	1.97	4.98	1.73	600

Sources:
1860, 1880: Based on reports of 14 large companies in 1860 and 31 companies in 1880.
1900–45: *A Study of Saving*, Vol. I, pp. 553, 555, 545–46.
1952: *Studies in the National Balance Sheet*, Vol. II, p. 102 ff.

[a] Period ending at date indicated.

companies in total corporate stock outstanding in the United States increased from a low point of one-half of 1 percent in 1922 to about 1½ percent in the late 1930's and 2 percent in 1952.

During most of the period, preferred stock constituted between one-fourth and one-fifth of the total stock portfolio of property insurance companies. Within the common stock portfolio the predominance of bank stocks gave way, beginning around the turn of the century, to the accumulation of a fairly diversified portfolio, although the holdings of bank and insurance company stocks continued to represent a higher proportion of the total portfolio than corresponded to their share in the total volume of corporate stock outstanding in the United States. Since preferred stocks constituted a considerably larger proportion of the stock portfolio of property insurance companies than of total corporate stock outstanding, their share in all preferred stock outstanding was fairly substantial, reaching 5 percent in 1952.

e. Investment Companies

Investment companies in their varied forms (management-closed-end companies; open-end companies, now often called mutual funds; fixed and semifixed investment trusts; and face amount instalment contract investment companies) were of negligible importance until the early 1920's. After hectic growth during a few years and stagnation between the early 1930's and the end of World War II, investment companies started on a second and this time sustained period of growth in the late 1940's, the emphasis now shifting from closed-end management investment companies, which had predominated in the 1920's, and from fixed trusts, which had been of some importance during the 1930's, to open-end management companies (see Table 2-12).

All important types of investment companies—with the exception of face value contract companies—have always invested the bulk of their assets in corporate stock (see Table 2-13), and during the last two decades have become an important factor in the market, as they were temporarily during the late 1920's. In 1929 the corporate stocks held by investment companies accounted for slightly more than 1 percent of all stock outstanding in the United States, and this ratio was maintained through the 1930's. Beginning with World War II the share of the stockholdings of investment companies in total outstandings increased continuously, although with different speed, and it reached 3 percent by 1952.

Common stocks have always dominated the portfolio of investment companies. The share of preferred stocks was approximately 7 percent

TABLE 2-12

Stockholdings of Investment Companies,[a] 1922–52

	Value of Holdings ($million) (1)	Share in: Assets (percent) (2)	Share in: Stocks Outstanding (percent) (3)	Net[b] Purchases ($million) (4)
		All Stocks		
1922	69[c]	69.0	0.09	
1929	2,189[d]	74.6	1.17	1,994
1939	1,204[d]	85.5	1.20	396
1945A	1,977[d]	82.4	1.35	−28
1945B	2,906	79.9	1.98	—
1952	6,583	84.8	3.00	1,360
		Preferred Stock		
1922	12[c]	0.1	0.09	12
1929	191[d]	6.5	0.99	166
1939	72[d]	5.1	0.53	−103
1945A	201[d]	8.4	1.49	158
1945B	250	6.9	1.86	—
1952	290	3.7	1.81	40
		Common Stock		
1922	57[c]	57.0	0.09	
1929	1,998[d]	68.1	1.19	1,828
1939	1,132[d]	80.4	1.31	499
1945A	1,776[d]	74.1	1.33	−186
1945B	2,656	73.0	1.99	—
1952	6,293	81.1	3.09	1,320

SOURCES:

Cols. 1–3. 1922–45A: *A Study of Saving*, Vol. I, p. 559 ff.
1945B–52: *Studies in the National Balance Sheet*, Vol. II, pp. 168–69 (coverage is wider than for 1922–39).

Col. 4. 1923–45A: *A Study of Saving*, Vol. I, pp. 545–46.
1945B–52: *Studies in the National Balance Sheet*, Vol. II, pp. 422–23.

[a] Excluding investment holding company and unclassified companies; Christiana Corporation classified until 1939 as investment holding company but as regular investment company beginning 1945.

[b] Period ending with year indicated.

[c] Closed-end investment companies only.

[d] Excluding face amount instalment companies; where no breakdown available, assumed allocation 90 percent common, 10 percent preferred.

TABLE 2-13

Stockholdings by Different Types of Investment Companies, 1922–52

	Closed-End Companies (1)	Open-End Companies (2)	Fixed and Semifixed Trusts (3)	Face Amount Investment Companies (4)	Total (5)
			Value ($million)		
1922	69	—	—	0	69
1929	1,927	109	153	2	2,191
1939	648	470	86	12	1,216
1945A	876	1,022	79	40	2,017
1945B	1,810	1,050		46	2,906
1952	3,110	3,400		73	6,583
			Percent of Total Assets		
1922	69.0	—	—	2.0	62.7
1929	73.0	81.3	93.3	3.8	73.3
1939	82.7	88.3	93.5	6.8	76.8
1945A	83.4	80.7	96.3	17.9	76.9
1945B	86.2	82.7		17.7	80.1
1952	94.8	85.2		15.0	84.9

SOURCES:
Cols. 1–4. 1922–45A: *A Study of Saving*, Vol. I, p. 559 ff.
1945B–52: *Studies in the National Balance Sheet*, Vol. II, p. 168.

until the late thirties, but then declined to less than 4 percent in 1952. Among common stocks the proportion of railraods declined, in line with the development of the relative supply and price of this category, from approximately one-seventh of the total stock portfolio in the 1920's to 5 percent since World War II. Public utility shares constituted, except during the late 1930's, between one-tenth and one-sixth of the total stock portfolio and represented a somewhat higher proportion of the investment companies' holdings of preferred stock alone. Stocks of financial institutions accounted in 1952 for about one-tenth of the total stock portfolio—a ratio probably not much different from that prevailing earlier—leaving approximately three-fifths to industrial stock. Up to the mid-1950's foreign stocks, then almost all Canadian companies, were unimportant, except for a short period in the late 1920's. Partly as a result of federal regulation beginning in 1939 and partly as a reflection of the policies of most management investment companies—although, of course, not of management holding companies, which are not regarded as financial institutions in this report—the stock portfolio has been fairly widely diversified among individual issues.[16]

f. Private (Uninsured) Pension Funds

Private pension funds, whether administered by a commercial bank's trust department, as most of them are, or by independent trustees, were of very small importance among financial institutions or as owners of corporate stock until after World War II (Table 2-14). Thus, in 1945, the total shareholdings of private pension funds, amounting to less than $300 million, constituted only one-tenth of their total assets and accounted for only one-fifth of 1 percent of all corporate stock outstanding. In the following two decades, however, the growth of the assets of private pension funds was spectacular, as was the increase in the absolute and relative importance of their stockholdings.

As early as 1952 the stockholdings of private pension funds of nearly $2 billion, the result primarily of heavy net purchases during the preceding decade, accounted for about one-fifth of the funds' total assets and represented nearly 1 percent of all corporate stock outstanding.

The importance of private pension funds is even slightly more marked if attention is limited to common stock, since the proportion of preferred stock in their total stock portfolio declined from about one-third at the end of World War II to about one-fifth in 1952. Even though the share of preferred stocks in the total portfolio of private pension funds fell, the proportion of all preferred stock outstanding in the United States held by private pension funds increased from about 0.7 percent in 1945 to more than 2.5 percent in 1952.

g. Other Financial Institutions

The stockholdings of other financial institutions have been too small throughout the period to warrant separate discussion, either because of the small size of the institutions (e.g., savings bank life insurance departments) or because of the very small percentage of corporate stock held (e.g., savings and loan associations; government pension funds), or

[16] For the situation up to 1936 see U.S. Securities and Exchange Commission, *Investment Trusts and Investment Companies*, 1939, Part II, Chapter 8; for the 1950's and the then dominating mutual funds see *A Study of Mutual Funds*, prepared by the Wharton School of Finance and Commerce for the Securities and Exchange Commission, 1962, Chapter IV.

TABLE 2-14

Stockholdings of Private Pension Funds, 1922–52

	Value ($million) (1)	Share of Total Assets (percent) (2)	Share of Outstanding Stock (percent) (3)	Net Purchases[a] ($million) (4)	Share of Preferred Stock in (1) (percent) (5)
1922	18	20.0	0.02	13	
1929	100	20.0	0.05	58	
1939	210	20.0	0.21	51	
1945	289	10.8	0.20	246	32.5
1952	1,964	20.6	0.89	1,700	21.1

SOURCES:
Cols. 1, 2. 1922–39: *Financial Intermediaries*, p. 371.
1945, 1952: *Studies in the National Balance Sheet*, Vol. II, p. 178.
Col. 4. 1922–45: *A Study of Saving*, Vol. I, p. 545.
1946–52: *Flow of Funds Accounts 1945–1967*, p. 71.
Col. 5. 1945, 1952: *Studies in the National Balance Sheet*, Vol. II, pp. 178, 179.

[a] Period ending with date indicated (first period covers 1920 to 1922).

because of the special character of the holdings (e.g., the holding of stock in Federal Home Loan banks by member savings and loan associations), or because of the special and temporary character of the stock held (e.g., the holdings of certain government lending organizations during the 1930's), or because of a combination of these factors resulting in a very small volume of corporate stock held, notwithstanding the fact that the size of either the institution or of the share of corporate stock in its assets (e.g., fraternal order life insurance and health insurance organizations) is not negligible. The available figures on the stockholdings of these miscellaneous financial institutions are shown in Table 2-15 which also indicates the share of corporate stockholdings in the institutions' total assets.[17]

h. Personal Trust Departments of Commercial Banks

The personal trust departments of commercial banks and trust companies have always administered larger stockholdings than all other

[17] Information on holdings between 1945 and 1958 for some of these minor institutions is provided in Goldsmith, Lipsey, and Mendelson, *Studies in the National Balance Sheet*, Vol. II: state and local government pension funds, pp. 160–61; fraternal order life and health insurance organizations, pp. 188–91; savings bank life insurance, pp. 192–93.

TABLE 2-15

Stockholdings of Miscellaneous Financial Institutions, 1939–52[a]

	Agencies of Foreign Banks (1)	Security Brokers and Dealers (2)	Savings Bank Life Insurance (3)	Group Health Insurance (4)	Fraternal Orders Life Insurance (5)	State and Local Pension Funds (6)	Savings and Loan Associations[b] (7)	Government Lending Institutions (8)	Total (9)	Percent of Total Outstanding (10)
					All Stocks ($million)					
1939			1		11		41	816		
1945	17	294	1	2	44	40	72	325	795	0.54
1952	34	378	1	7	84	120	309	44	977	0.45
					Percent of Assets					
1939			3.13		0.92		0.76	8.36		
1945	2.00	5.93	1.64	2.22	2.61	1.32	0.82	1.00	1.53	
1952	3.00	9.54	0.76	1.78	3.73	1.61	1.37	0.15	1.44	

SOURCES:
1939: *Financial Intermediaries*, p. 368 ff.
1945, 1952: *Studies in the National Balance Sheet*, Vol. II, p. 160 ff.

[a] Holdings before 1939 were negligible.
[b] Stock of Federal Home Loan banks.

financial institutions taken together. Thus, at the turn of the century, the stockholdings administered by personal trust departments seem to have been nearly twice as large as those of all other financial institutions, and this ratio was apparently maintained without very marked changes until World War II.[18] It was only in the late 1950's that the aggregate stockholdings of all other financial institutions began to approach the size of the stocks in the personal trust funds administered by commercial banks, and only in the mid-1960's did the former decisively pass the latter. In making this comparison it must, of course, be kept in mind that while the other financial institutions are in full control of their stock portfolios, this is not the case for the stocks administered by the personal trust departments of commercial banks, since the trust instrument often limits the power of management, although these limitations seem to have been substantially relaxed in recent decades. Even then the personal trust departments of commercial banks are, of course, bound by the principles which govern the activities of trustees and hence have not had, at least until the more liberal interpretation of these obligations in recent years, as much freedom in the portfolio management of their trusts and estates as some other financial institutions, particularly property insurance companies, investment companies, and uninsured pension funds.

Corporate stock apparently always has constituted an important proportion of the total value of personal trust funds administered by commercial banks, partly because corporate stocks bulked heavily in many of the large estates that were entrusted to personal trust departments. Rough estimates indicate that the proportion of corporate stock in the total value of personal trust funds administered by commercial banks rose from about one-fifth at the turn of the century to two-fifths by the 1950's (Table 2-16). Very little is known about the structure of these portfolios, but it may be assumed that apart from a relatively small number of very large estates the administering commercial banks have tended to establish diversified portfolios of usually high-grade common stock. Preferred stocks accounted for only approximately 4 percent of the stock portfolio in 1958[19] but the share was undoubtedly considerably higher before World War II.

[18] Because of the scarcity and limited reliability of data and the absence of comprehensive statistics on the assets of personal trust departments before the late 1950's, all findings for earlier periods must be tentative.

[19] This is the first year for which a comprehensive survey of personal trust funds was undertaken by the American Bankers Association (cf. J. H. Wolfe, "Report of National Survey of Personal Trust Accounts," mimeographed). The figure for 1952 should have been on the order of 6 to 8 percent.

Since the custom of entrusting the administration of estates and trusts to specialized departments of commercial banks and trust companies originated only late in the nineteenth century, there is little doubt that the proportion of total common stock outstanding in the United States administered by these departments increased substantially over the first thirty years of this century. The rise may have been from a level of about 5 percent of all stock outstanding at the turn of the century to one of about one-tenth in the 1930's and 1940's. In recent years the growth of the stock portfolio administered by the trust departments of commercial banks does not seem to have kept full pace with the increase in the value of all corporate stock outstanding, since the proportion in the mid-1960's, when the figures were much more reliable, was somewhat below one-tenth.

More is known about the small part of the personal trust funds that is administered by commercial banks as common trust funds, i.e., the

TABLE 2-16

Stockholdings Administered by Personal Trust Departments of Commercial Banks and Trust Companies, 1900–52

	Value ($million) (1)	Share in Assets of Personal Trust Departments (percent) (2)	Share in Stock Outstanding (percent) (3)	Share of Preferred Stock in (1) (percent) (4)
1900	600	20.0	4.3	
1912	2,450	35.0	6.5	
1922	6,300	35.0	8.3	18.3
1929	12,600	42.0	6.8	14.7
1939	12,950	37.0	12.9	
1945	18,000	40.0	12.3	
1952	25,000	41.7	11.4	

SOURCES:
Cols. 1, 2. 1900–52: *Financial Intermediaries*, p. 384.
Col. 4. 1922, 1929: N. G. Riddle, *The Investment Policy of Trust Institutions*, Chicago, Business Publications Co., 1934, p. 14; figures based on a small sample of accounts.

commingled funds of many trustors which are too small individually to justify separate management. These funds are more similar to other financial institutions, since they constitute separate legal entities—they most nearly resemble open-end investment companies—though participations in them are not marketable.

Common trust funds, started in the 1920's, have always been small compared to the personal trust funds administered by commercial banks on an individual basis. Even in 1952 after substantial growth in the postwar period, their assets equaled less than 2 percent of individually bank-administered personal trust funds. Common trust funds, in the portfolio selection of which the administering banks enjoy considerable freedom, have, since their introduction, kept about one-half of their assets

TABLE 2-17

Stockholdings of Common Trust Funds, 1929–52

	Value of Holdings ($million) (1)	Share in Total Assets (percent) (2)	Share in Stock Outstanding (percent) (3)
		All Stock	
1929	12	57.1	.006
1939	25	50.0	.025
1945	70	46.7	.047
1952	579	52.6	.264
		Preferred Stock	
1929	6	28.6	.031
1939	9	18.0	.066
1945	28	18.7	.208
1952	138	12.6	.859
		Common Stock	
1929	6	28.6	.004
1939	16	32.0	.019
1945	42	28.0	.032
1952	441	40.1	.217

SOURCE: *Financial Intermediaries*, p. 386.

in a diversified portfolio of corporate stock, the share rising to over three-fifths in the late 1950's, a ratio then corresponding to the average for individually bank-administered personal trusts (Table 2-17). As with other financial institutions, the proportion of preferred stocks in the total stock portfolio has declined sharply, from over one-half in 1929 to less than one-fourth in 1952.

i. Investment Advisers

The stockholdings subject to the investment management or advice of investment advisers—firms that may engage in this activity alone or combine it with investment banking, security brokerage, or publication of financial services—are similar to the stockholdings administered by personal trust departments of commercial banks in that for practical purposes the holdings are managed not by the beneficiary individual, nonprofit, or corporate owners but by the adviser. They are different in that legally no trustee relationship exists, the adviser may have a profit-sharing contract, and the securities generally are not kept physically with the manager but by a bank or other financial institution.

There is practically nothing known in quantitative terms about stocks under investment advisory management, and they are therefore excluded from all statistics used here. It may be estimated that in the mid-1930's total funds administered by investment advisory organizations were of the order of $5 billion, of which stocks probably constituted the majority. However, fully one-half of the total was funds of other financial institutions, which must be eliminated to avoid duplications. Individuals' funds administered by investment counsel firms seem to have been of the order of $1.5 billion.[20] At that time, therefore, the stockholdings managed by investment advisers were very small compared with stocks in personal trust departments or held directly by financial institutions. The rapid growth of stock under the management of investment advisers undoubtedly occurred only after World War II, in particular during the 1960's.

5. THE STOCKHOLDINGS OF ALL FINANCIAL INSTITUTIONS

Taking here as given the total assets of financial institutions, the determinants of which were discussed in sections 2 and 3, we need to survey the trend of three ratios: (1) the ratio of financial institutions'

[20] These estimates are based on data from 51 investment counsel organizations replying to a questionnaire and reporting funds administered of nearly $4 billion, assuming that they accounted for the bulk of the 394 firms then operating. (See Securities and Exchange Commission, *Investment Counsel . . . Services*, 1939, pp. 8–9.)

stockholdings to their total assets; (2) the ratio of stockholdings of all financial institutions to the value of all corporate stock outstanding; and (3) the ratio of net purchases of stock by all financial institutions to total new issues of corporate stock during the same period. The first ratio reflects portfolio policies of financial institutions within the constraints provided by regulation and differential price movements among financial assets, particularly the difference between movements of stock prices and of claims of different types. The second and third ratios provide an indication of the role of financial institutions in the market for corporate stocks.

a. The Share of Corporate Stock in the Assets of Financial Institutions

Table 2-18 shows that the share of stock in the assets of the various types of financial institutions has fluctuated considerably over the past century and without close synchronization among the different groups. This diversity reflects developments specific to individual groups of financial institutions. An example of this diversity is provided by the decline in the share of stockholdings in the assets of life insurance companies early in this century, and in the reduction of the proportion of stocks in the assets of commercial banks and personal trust funds during World War I. One important trend, however, is common to virtually all groups of financial institutions, namely, the considerable rise in the share of corporate stock in total assets during the 1920's and after World War II. Both movements reflect net purchases of common stock as well as increases in their price. Thus, the share of corporate stock in total assets rose between 1945 and 1952 from 2.3 to 3.3 percent for life insurance companies; from 11 to 21 percent for private pension funds; from 40 to 42 percent for common trust funds; and from 0.8 to 1.3 percent for mutual savings banks (see Table 2-19). These are the harbingers of much sharper increases in the following fifteen years, which will be discussed in Chapter 3. In 1952, however, the share of corporate stock in total assets was still below the level which prevailed at the turn of the century for commercial banks, mutual savings banks, and life insurance companies and hardly above that level for property insurance companies. In these important branches of financial institutions, the previous peak ratio was not passed until the mid- or the late 1950's; in the case of commercial banks this had not happened even by the late 1960's.

If the balance sheets of all financial institutions are combined (but personal trust departments are excluded), the share of corporate stock in total assets declined from 2¼ percent in 1900 to 1½ percent in 1922, but by 1952 had reached 5 percent, equal to the previous peak of 4½ percent in 1929. It is only during the last fifteen years that levels never before observed have been reached.

The distribution of the ratios of stock to total assets among the different types of financial institutions is bimodal. At one extreme are a few types of financial institutions for which stocks, and particularly common stocks, constitute the most important single type of asset and account for the majority, and often for two-thirds or more, of total assets. This category has always included investment companies and common trust funds and now also embraces private pension funds. In the case of property insurance companies, stocks accounted for less than half of total assets—the average for the period 1880 to 1930 was about one-third—but were the largest single asset. The situation of personal trust funds has been similar.

At the other extreme some financial institutions, and just the largest ones in terms of total assets, show only a very small proportion of total assets in corporate stock—say, less than 5 percent—so that the performance of the stock portfolio cannot decisively affect the financial position of the institutions. Commercial banks, mutual savings banks, savings and loan associations, credit unions, finance companies, life insurance companies, and (until the 1950's) state and local pension funds belong in this category. In some of them the share of corporate stock in total assets has fluctuated considerably over the last fifty years and has tended to increase during the postwar period. There is no group of financial institutions in which stocks ordinarily constitute a secondary but important asset.

b. The Share of Stockholdings of Financial Institutions in Total Corporate Stock Outstanding

The movements in this ratio in Table 2-20 are similar to those in the ratio of corporate stock to the total assets of financial institutions. Excluding personal trust funds, the share declined from about 3½ percent in 1860 to 2½ percent at the turn of century, mostly because of the relatively slow increase in the holdings of commercial banks and property insurance companies. The ratio fell further, to slightly more than 1½ percent, in 1912, partly reflecting the reduction of stockholdings by life insurance companies and the only modest increases by the other groups in the face of a sharp rise in the volume of corporate stock issues. It was only the sharp increase in the net purchases of corporate stock during the 1920's, induced by the stock market boom then prevailing, which brought the share of financial institutions in total corporate stock outstanding back to 3 percent in 1929. Continuous purchases during the 1930's and World War II, in

TABLE 2-18

Financial Institutions' Holdings of Corporate Stock, 1860–1952

(*$million*)

	Commercial Banks[a] (1)	Mutual Savings Banks (2)	Life Insurance Companies (3)	Property Insurance Companies (4)	Private Pension Funds (5)	Investment Companies (6)	Common Trust Departments (7)	Total (1)–(7) (8)	Personal Trust Funds (9)	Total (10)
					All Stock					
1860	10			18				28		
1880	30	40		25				95		
1900	103	43[b]	62	122				330	600	1,930
1912	284	41	84	231				640	2,450	3,090
1922	401	48	75	370	18	69		981	6,300	7,281
1929	1,009	77	352	1,511	100	2,189	12	5,250	12,600	17,850
1939	473	136	568	1,457	210	1,204	25	4,073	12,950	17,023
1945	220	166	1,000	2,415	289	1,977[c]	70	6,137	18,000	24,137
1952	150	336	2,450	4,320	1,964	6,580	579	16,379	25,000	41,379
					Common Stock					
1860	10									
1880	30	40								
1900	103	43	54	93				293		
1912	284	41	72	186				583		

1922	401	48	59	275	11[a]	57		851
1929	1,009	77	97	1,235	60[a]	1,998	6	4,482
1939	473	136	133	1,127	126[a]	1,132	16	3,143
1945	220	166	180	1,932	195	1,776[c]	42	4,511
1952	150	336	960	3,520	1,550	6,290	441	13,247
					Preferred Stock			
1860								
1880								
1900			8	29				37
1912			12	45				57
1922			16	95	7[a]	12		130
1929			255	276	40[d]	191	6	768
1935			435	330	84[a]	72	9	930
1945			820	483	94	201[c]	28	1,626
1952			1,490	800	414	290	138	3,132

SOURCES: Tables 2-7 to 2-17.

[a] Excluding stock of Federal Reserve banks.

[b] An alternative figure (83) has been estimated based on figures for six main states (New York, Massachusetts, Connecticut, Maine, New Hampshire, and Rhode Island) taken from reports of their bank supervisory authorities.

[c] Alternative figures (250 for preferred stock and 2,650 for common stock) can be found in *Studies in the National Balance Sheet*, pp. 168–69.

[d] Breakdown of preferred and common stock: 40 percent of total, preferred; 60 percent of total, common.

TABLE 2-19

Share of Stock in Assets of Financial Institutions, 1860–1952

(*percent*)

	Commercial Banks[a] (1)	Mutual Savings Banks (2)	Life Insurance Companies (3)	Property Insurance Companies (4)	Private Pension Funds (5)	Investment Companies (6)	Common Trust Departments (7)	Total (1)–(7) (8)	Personal Trust Funds (9)	Total (10)
					All Stock					
1860	1.20		2.30	22.80						
1880	1.10	4.52	1.50	11.50						
1900	1.03	1.77	3.56	25.68				2.25	20.00	5.27
1912	1.30	1.02	1.91	23.50				2.05	35.00	8.08
1922	0.84	0.73	0.87	16.02	20.00	57.12		1.50	35.00	8.88
1929	1.52	0.78	2.01	32.65	20.00	74.56	57.14	5.16	42.00	13.69
1939	0.71	1.15	1.94	30.45	20.00	85.51	50.00	3.55	37.00	11.46
1945	0.14	0.98	2.23	31.83	10.77	82.44	46.67	2.61	40.00	8.68
1952	0.08	1.33	3.30	26.87	20.62	84.79	52.64	5.06	41.67	10.83

					Common Stock			
1900	1.03	1.77	3.10	19.58				1.66
1912	1.30	1.02	1.63	18.92				1.53
1922	0.84	0.73	0.68	11.91	12.22	57.00		1.02
1929	1.52	0.78	0.55	26.69	12.00	68.05	28.57	3.40
1939	0.71	1.15	0.45	23.55	12.00	80.40	32.00	2.10
1945	0.14	0.98	0.40	25.46	7.27	74.06	28.00	1.61
1952	0.08	1.33	1.29	21.89	16.28	81.06	40.09	3.45
					Preferred Stock			
1900			0.46	6.11				0.21
1912			0.27	4.58				0.15
1922			0.18	4.11	7.78	0.12		0.16
1929			1.46	5.96	8.00	6.51	28.57	0.58
1939			1.49	6.90	8.00	5.11	18.00	0.62
1945			1.83	6.37	3.51	8.38	18.67	0.53
1952			2.01	4.98	4.35	3.74	12.55	0.82

SOURCES: Tables 2-7 to 2-17.
[a] Excluding stock of Federal Reserve banks.

TABLE 2-20

The Share of Financial Institutions in Total Stock Outstanding, 1860–1952

(*percent*)

	Commercial Banks[a] (1)	Mutual Savings Banks (2)	Life Insurance Companies (3)	Property Insurance Companies[b] (4)	Private Pension Funds (5)	Investment Companies (6)	Common Trust Departments (7)	Total (1)–(7) (8)	Personal Trust Funds (9)	Total (10)
					All Stock					
1860	1.30		0.10	1.50				3.00		
1880	0.60	.98	0.20	0.50				2.28		
1900	0.74	.31	0.45	0.88				2.38	4.32	6.70
1912	0.75	.11	0.22	0.61				1.69	6.45	8.14
1922	0.53	.06	0.10	0.49	0.02	0.09		1.29	8.28	9.57
1929	0.54	.04	0.19	0.81	0.05	1.17	.01	2.81	6.75	9.56
1939	0.47	.14	0.57	1.46	0.21	1.20	.03	4.08	12.93	17.01
1945	0.15	.11	0.68	1.65	0.20	1.35	.05	4.19	12.27	16.46
1952	0.07	.15	1.12	1.97	0.90	3.00	.26	7.47	11.39	18.86

					Common Stock			
1900	0.94	.39	0.49	0.85				2.67
1912	0.94	.14	0.24	0.61				1.93
1922	0.64	.08	0.09	0.44	0.02	0.09		1.36
1929	0.60	.05	0.06	0.74	0.04	1.19	.01	2.69
1939	0.55	.16	0.15	1.30	0.15	1.31	.02	3.64
1945	0.17	.12	0.14	1.45	0.15	1.33	.03	3.39
1952	0.07	.17	0.47	1.73	0.76	3.09	.22	6.51
					Preferred Stock			
1900	—	—	0.28	1.00				1.28
1912	—	—	0.16	0.58				0.74
1922	—	—	0.12	0.73	0.05	0.09		0.99
1929	—	—	1.33	1.44	0.21	0.99	.03	4.00
1939	—	—	3.18	2.41	0.61	0.53	.07	6.80
1945	—	—	6.10	3.60	0.70	1.49	.21	12.10
1952	—	—	9.28	4.98	2.58	1.81	.86	19.51

SOURCES: Tables 2-7 to 2-17.
[a] Excluding stock of Federal Reserve banks.
[b] Until 1880, only fire and marine companies.

the face of low stock prices and a very modest volume of new stock issues, raised the share to nearly 5 percent in 1945.

The real take-off in the ratio, however, started in the late 1940's, lifting it to more than 7 percent in 1952, a movement which was to double the ratio in the following fifteen years. This sharp increase reflected first the rapid growth in the total assets of financial institutions that concentrate their portfolios in corporate stocks, chiefly private pension funds and investment companies, and secondly the increase in the share of stock in the assets of other large financial institutions, particularly life and property insurance companies.[21]

If the rough estimates now available can be trusted, the ratio of stocks held in personal trust funds to total stock outstanding followed a movement which was in a direction opposite to that for the other institutions most of the time, rising from the late nineteenth century to 1922 but falling after World War II. As a result, the share of all financial institutions, including personal trust funds, in total corporate stock outstanding fluctuates less than either of the two components. The share appears to have increased from 3 percent in 1860 to about 10 percent in 1922; to have remained at that level during the 1920's; and to have increased sharply again to 17 percent at the end of the 1930's; rising also at the end of World War II. Even with the necessary reservations about the estimates for the stockholdings of personal trust funds, it is evident that the sharpest increase in the share of all financial institutions' holdings in total stock outstanding occurred from about 1880 to 1920 and during the Great Depression and World War II.

However, the character of the stockholdings of financial institutions and their ratio to total stock outstanding, changed during this century. Up to World War I the stockholdings of financial institutions were concentrated in bank and railroad stocks and represented a substantial

[21] All estimates of the share of financial institutions in the market value of corporate stock outstanding should be regarded as minima since some of the original figures, particularly those for some of the institutions with relatively small stockholdings, reflect book rather than market values. The resulting understatement, however, is not sufficient to affect substantially either the level, or the movement, of the estimates of the share for the aggregate of all financial institutions.

It should also be noted that the shares would be higher—during most of the period by about one-fourth—if the stockholdings of financial institutions were compared to total corporate stock outstanding excluding intercorporate holdings, a procedure that could be justified by the fact that most intercorporate holdings are not available for acquisition by financial institutions. The ratios would, of course, be further raised—and substantially so—if, following the same argument, the stock of closely held corporations were excluded from the denominator.

proportion of the total amount of such stock outstanding in the United States. In the postwar period the stockholdings of financial institutions have been more diversified. Another difference, and one of very significant economic importance, is that up to the Great Depression these stockholdings were largely attributable to upper wealth and income groups and were primarily holdings through personal trust funds. In contrast, in the postwar period the stockholdings of financial institutions may be regarded to an increasing extent—but probably to not more than one-half if stock administered by personal trust departments and investment advisers are included—as indirect holdings of individuals in the lower, and particularly the middle, income and wealth groups through insurance companies, pension funds, and investment companies.

Preferred stocks have always represented only a relatively small part of the total stockholdings of financial institutions and their movements in relation to the total volume of preferred stock outstanding in the United States have been generally similar to those observed for all stocks. Thus, the share declined from 1900 to 1922, but sharply increased during the remainder of the 1920's and during the 1930's. Differing from the case of common stock, however, the share of financial institutions' holdings in total preferred stock outstanding continued to increase during World War II. The share, now again paralleling the case of common stock, although in a less spectacular fashion, further increased in the 1950's and 1960's. As a result, the share of financial institutions in total preferred stock outstanding increased very sharply from only 1 percent in 1922 to 19 percent in 1952. The level of the share of financial institutions in the total value of stock outstanding has been considerably higher for preferred than for common stock since 1912. One of the reasons is the relatively moderate volume of new issues of preferred stock and the absence of a sharp price rise such as occurred in common stock, both factors which have resulted in a much slower increase in the value of preferred stock outstanding than in the total assets of financial institutions.

These conclusions, based on data excluding personal trust funds, have to be modified if an attempt is made to take account of the preferred stockholdings of these funds. If we assume, on the basis of scattered indications, that at the turn of the century about one-third of all stocks held in personal trust funds were preferred issues and that the ratio declined to about one-fifth in 1929 and dropped sharply to about one-twentieth in 1958—the last figure being fairly well documented—the share of preferred stock held by all financial institutions including personal trust funds would have risen from a negligible fraction in 1860 to about

TABLE 2-21

Institutional Holdings of All Stocks and of Stocks Listed on the New York Stock Exchange, As of End of 1949

	Amounts		Share in Stock Outstanding	
	All Stocks	Stocks Listed on NYSE	All Stocks	Stock Listed on NYSE
	($billion)		(percent)	
	(1)	(2)	(3)	(4)
Commercial banks	0.15[a]		0.10[a]	
Mutual savings banks	0.16	0.2	0.11	0.3
Life insurance companies	1.72	1.1	1.17	1.4
Other insurance companies	2.15	1.7	1.46	2.2
Pension funds				
Corporate	0.75	0.5	0.51	0.7
Other private		0.0		0.0
State and local government		0.0		0.0
Investment companies				
Open-end	(1.60)	1.4	2.44	1.8
Closed-end	(2.00)	1.6		2.1
Common trust funds	0.25	0.0	0.16	0.0
Personal trust departments	20.00		13.60	
Total, including personal trust departments	28.78		19.55	
Total, excluding personal trust departments	8.78	6.5	5.95	8.5

NOTE: Figures in parentheses are rough estimates.
SOURCES:
Col. 1. *Financial Intermediaries*, Appendix A.
Col. 2. *New York Stock Exchange Research Report*, January 1970.
Col. 3. Col. 1 divided by $137.3 billion. From *Studies in the National Balance Sheet*, p. 51.

[a] Excluding stock in Federal Reserve banks.

8 percent in 1900, doubling to about 16 percent in 1929, and again doubling to about 32 percent in 1958. These figures, rough as they are, indicate a sharp increase in the share of preferred stock held by financial institutions, an increase occurring almost continuously throughout the last century and proceeding at a level considerably above the share of their holdings of common stock. For example, the share of financial institutions in

the total volume of stock outstanding in 1958 was close to one-third for preferred stock, but in the neighborhood of only one-fifth for common stock. In 1929 the share for preferred stock, about one-sixth, was approximately twice as high as that for common stock; the difference in 1900 although smaller was still substantial.

Institutional holdings of corporate stock are concentrated in securities listed on the New York Stock Exchange. In 1949, for example, approximately seven-eighths of stockholdings of the main financial institutions, excluding personal trust departments of commercial banks, consisted of issues listed on the NYSE, while the share of stocks so listed in all corporate stock issues outstanding in the United States was only slightly in excess of one-half (Table 2-21). As a result, about 8½ percent of the stock listed on the NYSE was held by financial institutions, compared to 6½ percent for all corporate stock outstanding. If seven-eighths of the stock portfolios administered by personal trust departments consisted of issues listed on the NYSE, then at the end of 1949 all financial institutions would have held nearly one-third of all stock listed on the NYSE against a share in total stock outstanding of slightly less than one-fifth.

No similar figures are available for earlier dates, but it may be assumed that the concentration of the stockholdings of financial institutions in issues listed on the NYSE since World War I was not much different from the 1949 relationship. In the nineteenth century and the beginning of this century the ratio probably was lower because of the large share of bank stocks in institutional stock portfolios. (At that time, however, a considerable number of bank stocks were still listed on the NYSE.) Since the share of stocks listed on the NYSE increased from less than two-fifths in 1900 to about one-half in 1952 (if intercorporate holdings are excluded the rise was from about 45 to over 60 percent)[22] the difference between the share of institutional stockholdings in all corporate stock outstanding and in listed stock was more pronounced in those earlier periods than it is now.

c. The Share of Net Purchases of Stock by Financial Institutions in Total Net New Issues of Corporate Stock

The most spectacular movement in the share of financial institutions is observed if this share is measured by the ratio of institutions' net (cash) purchases to total net issues of corporate stock, i.e., the net addition to the supply of corporate stock resulting from cash offerings.

[22] See Goldsmith, *Financial Intermediaries*, Appendix F.

From the turn of the century, when the first estimates can be made, through World War II the share of net purchases by financial institutions in total new issues of corporate stock was never above 15 percent for any of the six periods distinguished. There were, however, considerable differences among these periods. The share of net purchases by financial institutions was relatively high, on the order of one-seventh of the total, for the periods 1897–1900, 1923–29, and 1940–45. The explanation is obvious for the 1920's: the appearance of investment companies as a new, important institutional buyer of corporate stocks and the sharp increase in the level of purchases, in this case mostly of preferred stock, by life insurance companies. During World War II total new issues of stock were so small that even very modest absolute net purchases by financial institutions, actually limited to preferred stock, produced a share of financial institutions in total net issues that was fairly high in historical perspective.

For the entire period from 1897 to 1945 net purchases by financial institutions were equal to a little less than one-tenth of total new issues of corporate stock.

A dramatic change occurred immediately after World War II. Already, in the 1946–52 period, net purchases of stock by financial institutions equaled nearly two-fifths of total net new issues, only a harbinger of the jump to 100 percent during the following fifteen years. This, of course, is the outstanding structural change in the role of financial institutions in the market for corporate stock in the postwar period, and as such it will be discussed in more detail in the following chapters.

The difference between the period before and after World War II would be somewhat less dramatic if it were possible to include the net purchases of corporate stock, or more correctly the addition to the holdings of corporate stock excluding valuation changes, by personal trust funds, although often—and possibly in most instances—this took place not through cash purchases but by transfer of previously personally held blocks of stock on the death of the owner or by the establishment of a trust fund while he was still alive. These purchases (or transfers) would considerably raise the ratio of institutional acquisitions to total net issues of corporate stock during the first four decades of this century, but would increase them relatively little during the 1950's and 1960's. As a result the increase in the ratio of acquisitions of corporate stock by financial institutions on this broader basis would be less pronounced than if the ratio is limited, as in Table 2-22, to the net cash purchases by financial institutions.

TABLE 2-22

Net Purchases of Corporate Stock by Financial Institutions, 1897–1952

(*$million, except column 9*)

	Total Net Issues (1)	Commercial Banks (2)	Mutual Savings Banks (3)	Life Insurance Companies (4)	Property Insurance Companies (5)	Pension Funds (6)	Investment Companies (7)	All Financial Institutions: Value (8)	All Financial Institutions: Percent of Net Issues (9)
					All Stock				
1897–1900	981	55	−5	15	54	—	—	119	12.1
1901–1912	7,198	171	−2	22	109	—	—	300	4.2
1913–1922	10,727	115	7	−9	139	13	13	278	2.6
1923–1929	23,501	623	29	240	625	58	1,994	3,569	15.2
1930–1939	6,564	−535	59	228	270	51	396	469	7.1
1940–1945	4,349	−326	30	165	450	246	−28	537	12.3
1946–1952	12,700		100	1,300	600	1,700	1,360	5,060	39.8
					Preferred Stock				
1897–1900	469	—	—	2	13	—	—	15	3.2
1901–1912	1,014	—	—	4	16	—	—	20	2.0
1913–1922	2,965	—	—	4	50	5	12	71	2.4

(*continued*)

TABLE 2-22 (*concluded*)

	Total Net Issues (1)	Net Purchases by: Commercial Banks (2)	Mutual Savings Banks (3)	Life Insurance Companies (4)	Property Insurance Companies (5)	Pension Funds (6)	Investment Companies (7)	All Financial Institutions: Value (8)	All Financial Institutions: Percent of Net Issues (9)
				Preferred Stock (continued)					
1923–1929	7,911	—	—	206	180	24	166	576	7.3
1930–1939	1,806	—	—	183	75	23	–103	178	10.0
1940–1945	2,013	—	—	131	150	120	158	559	27.8
				Common Stock					
1897–1900	512	55	–5	13	41	—	—	104	20.3
1901–1912	6,184	171	–2	18	93	—	—	280	4.5
1913–1922	7,762	115	7	–13	89	8	1	207	2.7
1923–1929	15,590	623	29	34	445	34	1,828	2,993	19.2
1930–1939	4,758	–535	59	45	195	28	499	291	6.1
1940–1945	2,336	–326	30	34	300	126	–186	–22	–0.9

SOURCES:
1897–1949: *A Study of Saving*, Vol. I, pp. 493–98, 545–46.
1946–52: *Flow of Funds Accounts 1945–1967*, p. 60 ff.
Studies in the National Balance Sheet, Vol. II, pp. 422–23.

For the entire period from 1897 through 1949 (separate figures for the two types of stock are not available for later years) the share of net purchases by financial institutions was about the same for preferred as for common stock—about one-eighth. There are, however, substantial differences in some periods (particularly 1897–1900, 1923–29, and 1940–45) which can be followed in Table 2-22.

6. THE ECONOMIC SIGNIFICANCE OF INSTITUTIONAL STOCKHOLDINGS

The economic significance of the holdings of common stock by financial institutions has two main aspects. The first is the supply of equity funds to nonfinancial corporations embodied in the purchase of their stock by financial institutions. Supply may be direct, as when the financial institution acquires newly issued stock of nonfinancial corporations. It may be indirect and partial, as when financial institutions buy outstanding corporate stock and thus either set free part of the proceeds for reinvestment in new corporate stock, the proportion depending on the reactions of the sellers, or induce a rearrangement of the portfolios of the sellers in the direction of a reduction of corporate stock and an increase in other investments. The second economically relevant aspect of the holdings of nonfinancial corporate stock by financial institutions is their function as an outlet for the funds of these institutions, and the effects of this use of funds on the institutions' current earnings and capital gains and, at one degree removed, the effects on the rates which the institutions are able to pay to attract savings, and on their policy with regard to other uses of their funds.

a. As Suppliers of Equity Capital

Although direct evidence is almost entirely lacking, nevertheless the straightforward influence of financial institutions through acquisition of stock of nonfinancial corporations appears to have been small with few exceptions. One of these is the purchase of bank stocks by life insurance companies, property insurance companies, and mutual savings banks during the second half of the nineteenth century. That such an influence is possible, though it cannot have been decisive, is indicated by the fact that in 1880 fully 5 percent, and in 1900 about 8 percent, of all bank stock outstanding was held by financial institutions, excluding the personal trust departments of banks. Another, and more important, exception is the case of preferred stock, where beginning with the 1920's financial institutions probably absorbed a considerable part of new issues, the net purchases of institutions being equal to a considerable fraction of them. A less important exception is the purchase of industrial stocks by investment companies during the 1920's, which may have included a significant amount of recent issues.

To evaluate the role of financial institutions in the market for outstanding corporate stock we may use the proportion of shares outstanding and shares traded, as both figures are probably little affected by transactions in new issues. It is then rather unlikely that until the 1950's financial institutions can have had a major role, since their holdings never exceeded 5 percent of total corporate stock outstanding until the end of World War II, this mostly in the hands of life insurance companies, property insurance companies, and investment companies, all of which invested in a diversified portfolio of large, heavily capitalized companies. Because of concentration on the stocks of certain "blue chips," the proportion of financial institutions' holdings may, however, have been sufficiently large in a few cases to constitute an important factor in the market.

Detailed information of this type is limited to investment companies. In 1935 investment companies (excluding investment holding companies) owed slightly more than 5 percent of the common stocks of the 86 largest corporations traded on securities exchanges.[23] Their share, however, was as high as 15 percent for Missouri-Kansas-Texas Railroad, 13 percent for B-M-T and United Light and Power B, 11 percent for American Gas and Electric, and 9 percent for Pacific Gas and Electric and Pacific Lighting. But in most of the largest companies (such as American Telephone & Telegraph, Dupont, General Motors, Pennsylvania and New York Central Railroads, Standard Oil of New Jersey, and U.S. Steel), the proportion was considerably lower, averaging about 2 percent.

In 1952 open-end investment companies held 2½ percent of all stocks listed on the New York Stock Exchange, but only 1½ percent of a sample of 30 very large companies, although they accounted for over 4 percent of trading in these stocks on the exchange.[24] If the other institutional investors with diversified portfolios—closed-end investment companies, property insurance companies, private pension funds, and common trust funds—distributed their stock portfolio in the same way as open-end

[23] SEC, *Investment Trusts and Investment Companies*, Part II, p. 725 ff. At that time investment companies' holdings of common stock were equal to about 40 percent of all institutional holdings excluding, and 7 percent including, common stocks in portfolios administered by personal trust departments, excluding in both cases stock in Federal Reserve banks held by commercial banks.

[24] SEC, *A Study of Mutual Funds*, pp. 168–69.

investment companies, the aggregate holdings of all these financial institutions would have been equal to about 3 percent of the amount outstanding. The proportion, however, was considerably higher in a few open-end company favorites, e.g., 10 percent in Goodrich, 9 percent in Central and South West, and 6 percent in Goodyear. On the other hand, the proportion was below 1 percent for Standard Oil of New Jersey, General Motors, Dupont, and American Telephone & Telegraph.[25]

Another piece of evidence on the influence of transactions by financial institutions is the share of a group of large institutions (together accounting for about one-sixth of all institutional common stockholdings but nearly one-half of institutions other than personal trust departments) in the trading in 25 leading stocks on the New York Stock Exchange in 1953–55.[26] For the 25 stocks together the reporting institutions (other than the few reporting personal trust funds) accounted for a little over 5 percent of exchange trading in the 34 months ending October 1955. Their share, however, was as high as 23 percent for Sears Roebuck; 22 percent for Southern California Edison; 15 percent for General Public Utilities; 13 percent for Pacific Gas; 12 percent for American Can, CIT Financial, and United Gas; 11 percent for Goodyear; and 10 percent for Atchison. While it is obvious that for these and similar stocks the activities of financial institutions may have substantially influenced prices, it does not follow that they had a more marginal bearing on the equity financing of these companies, as most of them offered little if any new stock.

The situation is different for the stocks administered by the personal trust departments of commercial banks. From the fourth quarter of the nineteenth century to World War II, stocks held in these funds rose continually and substantially, finally accounting for over one-eighth of all corporate stock outstanding. These holdings, however, gave financial institutions much less direct and indirect influence on portfolio companies, on the market for corporate stock, and on the economy in general than direct holdings of similar size would have, because most of the blocks of stocks held in personal trust funds were the result of transfers at or before the death of the owner rather than of purchases in the open market, and because the turnover of the stock portfolios in personal trust funds after original transfer seems to have been moderate. Nevertheless, it is probably true that until World War II the influence of financial institutions on the market for corporate stock through ownership or management of such stocks

[25] *Ibid.*, p. 171.

[26] U.S. Joint Economic Committee, *Institutional Investors and the Stock Market*, 84th Cong., 2nd sess., 1956, p. 86 ff.

(and thus abstracting from the effect of loans on securities by commercial banks) probably lay more in the administration of large stockholdings by the trust departments of commercial banks than in the stock portfolios directly owned by other financial institutions.

Although the share of financial institutions (excluding personal trust departments) in corporate stock outstanding remained moderate until the postwar years, two significant long-term movements may be discerned within a period of nearly one century. The first is a decline in the share of financial institutions' holdings in total corporate stock outstanding from the late nineteenth century to the early 1920's; the second is the rapid increase in the two following decades. In fact, the increase from not much over 1 percent of total corporate stock outstanding in 1922 to nearly 5 percent in 1945 is relatively much larger, although considerably smaller in absolute terms and in percentage points, than the further increase in the twenty years after World War II.

b. As Outlets for Financial Institutions' Funds

Turning to the effects of the stockholdings of financial institutions as an outlet for their funds, a distinction must be made between two groups of institutions. For the first, corporate stock provides a substantial or even the major part of assets and hence of earnings and net worth (at market prices), indirectly strongly affecting the attraction of the institutions to investors. These institutions therefore are all strongly influenced by, or even dependent on, the performance of the stock portfolio. This is the case primarily for investment companies, the funds administered by personal trust departments of commercial banks, and private pension funds. It is true also, although less decisively, for property insurance companies. In all these cases, except for investment companies, the importance of the stock portfolio has been increasing since the 1930's and particularly since World War II. For the other types of financial institutions, stockholdings have been so small in proportion to total assets, at least until 1952, that the performance of the stock portfolio could exercise only a minor influence on the institutions' earnings, net worth, and attractiveness. This is the case particularly for commercial banks, mutual savings banks, savings and loan associations, credit unions, and finance companies, but it is also true of life insurance companies and state and local government pension funds.