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3

The Position of Institutional Investors and of Corporate Stock in the National Balance Sheets and the Flow of Funds Accounts of the United States of America, 1952–68

RAYMOND W. GOLDSMITH

1. SCOPE AND LIMITATIONS OF DATA AND THEIR ANALYSIS

The purpose of this chapter is to provide an overview of the structure and development of the balance sheets and flow of funds accounts of the main financial and nonfinancial sectors of the American economy during the years 1952–68. This overview centers on corporate stock among assets and on financial institutions among sectors, and is intended to furnish a background for the more detailed studies of institutional investors' activities in the stock market during recent years which are being made by the Securities and Exchange Commission's Institutional Investors Study.

Because of the limited amount of time available for this study and because the basic framework of statistical data—the balance sheets and flow of funds statements for 1952–68—could be completed only shortly before the date on which the report was to be submitted to the SEC, it has not been possible to subject the data to substantial analysis. A few attempts in this direction are made in parts of Chapters 4 and 5, but these efforts are based essentially on data available before the material used in this chapter was assembled. The limitation to annual data precluded, of course, any detailed analysis of the effects of business cycles. The emphasis, therefore, was put on trends and structural changes.

Because of the limitations of time and resources noted above, and because of the unavailability of the extensive additional data which were collected by the Institutional Investors Study while this study was in progress, the latter was of necessity based essentially on existing statistical data insofar as financial assets were concerned, although a large part of the estimates of the level and changes in the stock of tangible assets—better known in their total for all sectors as national wealth—was developed specifically for this study.

The estimates of the market value of reproducible tangible assets and of their value in constant (1958) prices follow the perpetual inventory method, which has become accepted in this field in the postwar period, and are linked to existing estimates for 1952.[1] These estimates are explained in Appendix I. For most types of nonreproducible tangible assets (i.e., land) a new set of estimates was developed which is described in Appendix II. These figures are subject to substantial but indeterminate errors of estimation, as are all estimates in this field.

Financial assets outstanding and annual flows were essentially derived from the latest version of the Federal Reserve Board's flow of funds statistics.[2] However, new estimates were developed for two nonfinancial sectors that are not shown separately in past flow of funds statistics and for a few types of financial institutions which also are omitted from previous statistics.[3]

The elimination of the holdings and transactions of these groups makes the new "household" sector considerably more homogeneous than the old one. Unfortunately, due to lack of available data and of time and resources needed to develop new data, it was not possible to eliminate holdings of, and transactions in, financial assets of a few nonprofit institutions, particularly churches and hospitals. However, the holdings and transactions of these groups are relatively small, particularly in the case of corporate stock. More serious for the analysis of the market for corporate stock is the inability to separate funds administered by nonbank trustees and by investment advisers, funds which are supposed to be of substantial size, particularly in the latter case.

The new, more narrowly defined "household" sector still includes more than 60 million households and unattached individuals with a wide range of income and wealth and with very different structures of balance sheets and of stock portfolios. Therefore, an attempt (described in Appendix V) has been made to allocate the total assets and liabilities of the

[1] R. W. Goldsmith, *The National Wealth of the United States in the Postwar Period*, Princeton, Princeton University Press for National Bureau of Economic Research, 1962.

[2] This version is very similar to the figures published in *Flow of Funds Accounts 1945–1967* (February, 1968), *Federal Reserve Bulletin*, November, 1969, p. A 70 ff.; and *Flow of Funds . . . 4th Quarter 1969* (February, 1970), but embodies a number of minor revisions.

[3] For details see Chapter 1. The derivation of these estimates is described in Appendixes III and IV.

household sector among about half a dozen groups classified by total wealth, using estate tax returns and occasional sample surveys of financial assets and liabilities of households as the basis of the allocation. These estimates are necessarily very rough, but they are important for an understanding of the capital market, and they deserve further development.

Of the groups for which balance sheets and flow of funds accounts were developed for this study, using partly existing and partly new data, five (personal trust departments, common trust funds, mortgage companies, closed-end and other investment companies, and fraternal insurance organizations) were added as new subsectors to the existing subsectors of the financial institutions sector. Together these five groups accounted in 1968 for about 15 percent of the assets and nearly one half of the stockholdings of all financial institutions, represented mostly by the assets of personal trust departments. With the addition of these five groups all financial institutions with substantial stockholdings during the postwar period are included in the statistics, save investment advisers, who in 1969 administered for individual clients about 2 percent of all corporate stock outstanding, or about one-tenth of stock owned or administered by financial institutions covered by the statistics.

The figures for the stocks and flows of financial assets are also subject to errors of estimation, the size of which cannot be precisely evaluated. These errors are particularly important in the case of the household sector because of its derivation as a residual. In order to improve the estimates of households' holdings of corporate stock, new estimates (described in Appendix VII) of the total market value of all corporate stock outstanding in the United States were prepared. A new estimate (described in Appendix I) was also made of corporate bonds outstanding, but it is still a very tentative one. The need for such a revised estimate is indicated by the fact that the residual between the previous estimate of the value of corporate and foreign bonds and the reported market value of the holdings of these securities by all sectors other than households—a residual measuring the holdings of corporate and foreign bonds by households (it is not as yet possible to separate the two components reliably)—was negative in some years, indicating either an underestimate of the amount outstanding or an overestimate of the holdings of other sectors.

Estimates of the flows (net purchases or sales) of long-term claims, particularly of marketable bonds, are subject—as already has been pointed out in Chapter 1—to the shortcoming that they are derived as the difference between the book value of holdings at the beginning and end of the year, which usually is equal to original cost or close to it. In this

TABLE 3-1

Distribution of Growth of Reproducible Tangible Civilian Wealth Among Increases in Population, Price Level, and Real Wealth per Head, 1850–1968

(percent)

	Rate of Growth of Reproducible Tangible Wealth				Share in Growth of Total Reproducible Tangible Wealth			
	1952 to 1968 (1)	1930 to 1951 (2)	1901 to 1929 (3)	1851 to 1900 (4)	1952 to 1968 (5)	1930 to 1951 (6)	1901 to 1929 (7)	1851 to 1900 (8)
1. Nonmilitary wealth, current values	6.00	5.05	5.91	5.20	100.0	100.0	100.0	100.0
2. Population	1.55	1.10	1.62	2.40	25.9	21.8	27.4	46.2
3. Wealth per head	4.45	3.95	4.29	2.80	74.1	78.2	72.6	53.8
4. Price level	2.30	3.50	2.62	0.30	38.3	69.3	44.3	5.8
5. Real wealth per head	2.15	0.45	1.67	2.50	35.9	8.9	28.3	48.1
6. Real wealth	3.70	1.55	3.29	4.90	61.7	30.7	55.7	94.2

SOURCES:

Lines 1, 6.	1952–68:	Appendix I.
	1929–52:	R. W. Goldsmith, *The National Wealth of the United States in the Postwar Period.* Princeton, Princeton University Press, 1962, p. 114.
	1850–1929:	*Ibid.*, p. 37.
Line 2.		*Statistical Abstract of the United States.*
Line 3.		Line 1 less line 2.
Line 4.	1850–1929:	As for lines 1 and 6.
	1929–68:	Difference between lines 3 and 5.
Line 5.		Line 6 less line 2.
Line 6.		Line 5 plus line 2.

method of calculation, realized capital gains and losses, as well as the less common write-ups or write-downs, are included in net purchases or sales. Fortunately the amounts of capital gains or losses realized when claims were sold, or of write-ups and -downs—which have the same distorting effect on calculated flows—probably were relatively small during the postwar period, at least until 1965 when the sharp increase in interest rates and the corresponding fall in the prices of long-term claims started.

TABLE 3-2

The Reproducible National Wealth of the United States and Its Main Components, 1900–68

(constant prices, $billion)

	1968	1960	1952B	1952A	1929	1900
	(1958 prices)			(1947–49 prices)		
	(1)	(2)	(3)	(4)	(5)	(6)
I. Structures	1,179	894	642	480	384	146
1. Private, residential	531	426	308	251	200	76
2. Private, nonresidential	290	213	156	135	139	60
3. Public, nonmilitary	358	255	178	94	45	10
II. Equipment	554	359	257	225	118	43
1. Private, producer durables	285	192	147	106	60	21
2. Private, consumer durables	227	140	95	116	57	22
3. Public, nonmilitary	42	27	15	3	1	0
III. Inventories[a]	204	143	125	98	64	32
IV. Reproducible wealth	1,937	1,396	1,024	803	566	221

Sources:
Cols. 1–3. Appendix I.
Cols. 4–6. Goldsmith, *National Wealth*, pp. 119–20.
[a] Including livestock.

2. MAIN CHARACTERISTICS OF NATIONAL AND SECTORAL BALANCE SHEETS AND FLOW OF FUNDS ACCOUNTS IN THE POSTWAR PERIOD[4]

a. Growth of National Wealth

In putting the essential features of the national balance sheet of the United States during the period 1952–68 into historical perspective, a few conclusions emerge, starting with the real infrastructure of tangible assets, which is summarized in Table 3-1.

(1) The average rate of growth of reproducible wealth per head in constant prices (excluding land, to which the concept of deflated values is difficult to apply) for the 17 years 1952–68 is 2.2 percent, substantially

[4] When Chapter 3 was written the final version of the figures shown in Appendix I was not available and preliminary estimates had to be used in some cases. Therefore, occasional discrepancies, mostly minor, exist between the figures of Chapter 3 and the corresponding figures of Appendix I.

TABLE 3-3

Distribution of the Reproducible National Wealth of the United States, 1900–68

(*constant prices, percent*)

	1968	1960	1952B	1952A	1929	1900
	(1958 prices)			(1947–49 prices)		
	(1)	(2)	(3)	(4)	(5)	(6)
I. Structures	60.9	64.0	62.7	59.8	67.9	66.0
1. Private, residential	27.4	30.5	30.2	31.3	35.3	34.3
2. Private, nonresidential	15.0	15.3	15.2	16.8	24.6	27.2
3. Public, nonmilitary	18.5	18.3	17.4	11.7	8.0	4.5
II. Equipment	28.6	25.7	25.1	28.0	20.8	19.5
1. Private, producer durables	14.7	13.8	14.4	13.2	10.6	9.5
2. Private, consumer durables	11.7	10.0	9.3	14.4	10.1	10.0
3. Public, nonmilitary	2.2	1.9	1.5	0.4	0.2	0.0
III. Inventories[a]	10.5	10.2	12.2	12.2	11.3	14.5
IV. Reproducible wealth	100.0	100.0	100.0	100.0	100.0	100.0

SOURCES:
Cols. 1–3. Appendix I.
Cols. 4–6. Goldsmith, *National Wealth*, pp. 127–28.

[a] Including livestock.

higher than the rate of 1.7 percent observed for the period 1901 through 1929 but slightly below the rate of 2.5 percent for the second half of the nineteenth century. By this test therefore, the rate of growth of the real infrastructure of the United States in the postwar period was in line with the trend over the preceding hundred years.

(2) Shifts within the real infrastructure during the postwar period were relatively small if measured in constant prices, as in Tables 3-2 and 3-3.[5] The main changes are the increase in the share of consumer durables from 9 to nearly 12 percent and a small decline in the share of

[5] The figures for the years 1968, 1960, and 1952B are not strictly comparable to those for 1952A, 1929, and 1900 because of the difference in the price bases and because of differences in the methods of estimation (particularly the assumed length of life) and in the exact coverage of the various components of reproducible wealth. Such differences are particularly marked in the estimates for consumer durables. Comparisons for the entire period should therefore be made by linking changes within the two subperiods.

residential structures and inventories. These tendencies are similar in direction to shifts occurring during the first half of the century. There was no continuation, however, of the sharp decline in the share of nonresidential structures and the substantial increase in the share of producer durables observed in the earlier period. Similarly there was no major shift between the private and public sectors of the economy, although the share of the public sector increased slightly.

TABLE 3-4

The National Wealth of the United States and Its Main Components, 1900–68

(*current values, $billion*)

	1968 (1)	1960 (2)	1952 (3)	1929 (4)	1900 (5)
I. Land	716	413	200	113.5	31.0
1. Private, agricultural	153	93	67	38.0	16.1
2. Private, nonagricultural	419	241	98	60.2	10.9
3. Public	144	79	35	15.3	4.0
II. Structures	1,536	925	577	189.9	34.9
1. Private, residential	696	446	282	95.9	17.4
2. Private, nonresidential	362	217	142	70.6	15.5
3. Public, nonmilitary	479	261	153	23.4	2.0
III. Equipment	611	368	228	80.6	12.6
1. Private, producer durables	330	200	126	37.8	6.4
2. Private, consumer durables	234	141	90	42.2	6.1
3. Public, nonmilitary	47	27	12	0.6	0.1
IV. Inventories[a]	216	147	111	38.0	9.9
V. Monetary metals	11	18	23	4.8	1.6
VI. Net foreign assets	50	25	14	12.4	−2.3
VII. National wealth	3,141	1,895	1,153	439.2	87.7
VIII. Reproducible wealth	2,425	1,482	953	325.7	56.7

SOURCES:
Cols. 1–3. Line I. Appendix II.
Lines II–VI. Appendix I.
Cols. 4, 5. Goldsmith, *National Wealth*, pp. 117–18.

[a] Including livestock.

TABLE 3-5

The National Wealth of the United States and Its Main Components, 1900–68

(*current values, percent*)

	1968 (1)	1960 (2)	1952 (3)	1929 (4)	1900 (5)
I. Land	22.8	21.8	17.3	25.8	35.3
1. Private, agricultural	4.9	4.9	5.8	8.7	18.4
2. Private, nonagricultural	13.3	12.7	8.5	13.7	12.4
3. Public	4.6	4.2	3.0	3.5	4.6
II. Structures	48.9	48.8	50.0	43.2	39.8
1. Private, residential	22.2	23.5	24.5	21.8	19.8
2. Private, nonresidential	11.5	11.5	12.3	16.1	17.7
3. Public, nonmilitary	15.3	13.8	13.3	5.3	2.3
III. Equipment	19.5	19.3	19.8	18.4	14.4
1. Private, producer durables	10.5	10.5	10.9	8.6	7.3
2. Private, consumer durables	7.5	7.4	7.8	9.6	7.0
3. Public, nonmilitary	1.5	1.4	1.0	0.1	0.1
IV. Inventories[a]	6.9	7.8	9.6	8.7	11.3
V. Monetary metals	0.4	0.9	2.0	1.1	1.8
VI. Net foreign assets	1.6	1.3	1.2	2.8	−2.6
VII. National wealth	100.0	100.0	100.0	100.0	100.0
VIII. Reproducible wealth	77.2	78.2	82.7	74.2	64.7

SOURCES:
Cols. 1–3. Table 3-2.
Cols. 4, 5. Goldsmith, *National Wealth*, pp. 125–26.

[a] Including livestock.

(3) In terms of current values and of aggregate rather than per head values, terms which are probably more important for financial analysis than the figures based on deflated values that have been used in the preceding paragraphs, there was a significant shift in favor of land, reflecting the more rapid rise in land prices than in the prices of other durable assets (Tables 3-4 and 3-5). This is contrary to past experience in which the share of land in total national wealth declined rapidly, mainly because of the reduced importance of agriculture in the economy.

(4) The average price level of reproducible tangible assets rose by approximately 2.3 percent per year, or only slightly less than the 2.6 percent of the period 1900–29 and considerably less than the 3.5 percent of the period of the 1930's and 1940's. All these rates were far above the only very small increase experienced over the second half of the nineteenth century as a whole.

(5) As a result the increase in the current value of total reproducible tangible wealth of 6 percent per year was practically the same as that experienced in the period from 1900 to 1929, and it was only slightly higher than the rates prevailing from 1929 through 1952 and during the second half of the nineteenth century.

(6) Distribution of the total rate of increase of the current value of reproducible tangible assets from 1952 to 1968 was very similar to that observed in the 1900–29 period, population increase accounting for fully one-fourth, the price level for approximately two-fifths, and the remaining 30 to 35 percent representing an increase in real wealth per head. The distribution was, however, quite different in the second half of the nineteenth century when price rises contributed very little while population increase accounted for almost one-half of the growth in the current value of reproducible tangible wealth; or in the 1930's and 1940's when sharp price increases contributed over two-thirds, and less than one-tenth of the rise in total current value was contributed by an increase in real reproducible tangible wealth per head.

b. The Growth of Financial Assets

(1) The situation is rather different in the case of financial assets, the relevant figures for which are shown in Table 3-6. In this case there are considerable changes both in the average rate of growth between the four periods distinguished and in the relative share of the three components in the aggregate rate of growth of the current value of financial assets. As in the case of the real infrastructure, a substantial similarity exists between the two periods 1952–68 and 1901–29, and both these periods differ considerably from the periods 1930–51 and 1850–1900.

(2) In the postwar period 1952 through 1968, as in the first three decades of the current century, the market value of financial assets increased at an annual rate of nearly 8 percent (Table 3-7). The rate of growth of the value of corporate common stock was substantially above that of the rate of growth of claims in both periods, but the difference was

TABLE 3-6

Growth of Financial Assets in the United States, 1900–68

(*$billion*)

	All Financial Assets[a] (1)	Claims							Corporate Stock		
			Against Nonfinancial Sectors			Against Financial Institutions					
		All (2)	All (3)	Federal Govern-ment (4)	Other (5)	All[b] (6)	Banking System[c] (7)	Other (8)	All (9)	Financial Institu-tions (10)	Other (11)
1968	3,917.4	2,791.2	1,509.0	333.2	1,175.8	1,282.2	487.3	794.9	1,126.2	290.9	835.3
1960	2,001.4	1,555.5	889.4	263.4	626.0	666.1	260.1	406.0	445.9	92.9	353.0
1952B	1,161.5	971.8	567.0	243.7	323.3	404.8	208.1	196.7	189.7	34.6	155.1
1952A	1,293.7	1,074.2[d]	615.3	278.6	336.7	458.9	270.3	188.6	219.5	25.0	194.5
1929	504.0	317.3[d]	204.5	18.2	186.3	112.8	61.6	51.2	186.7	22.0	164.7
1900	58.7	44.8[d]	30.6	1.3	29.3	14.2	8.1	6.1	13.9	2.7	11.2

Notes to Table 3-6

SOURCES:

1900, 1929, 1952A. R. W. Goldsmith, R. W. Lipsey, and M. Mendelson, *Studies in the National Balance Sheet of the United States*, 2 vols., Princeton, Princeton University Press for NBER, 1963, pp. 56–57, 72–73, 78–79, 100–101.

1952B, 1960, 1968. Appendix I.

[a] Excluding proprietors' equities in unincorporated business enterprises.

[b] Including all investment companies, fraternal insurance organizations, and from 1952B on, personal trust funds administered by commercial banks. (Rough estimates of personal trust funds for 1900, $3 billion; for 1929, $30 billion; and for 1952A, $60 billion; according to R. W. Goldsmith, *Financial Intermediaries in the American Economy Since 1900*, Princeton, Princeton University Press for NBER, 1958, p. 384.)

[c] Monetary authorities and commercial banks.

[d] Taken as equal to liabilities of all domestic sectors.

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more pronounced in the postwar period. The rate of expansion of claims, as a matter of fact, was about the same in both periods with approximately 7 percent per year. This rate also prevailed during the second half of the nineteenth century, but at 5 percent it was considerably lower in the 1930's and 1940's. On the other hand, the average rate of growth of the value of corporate common stock was slightly smaller in the second half of the nineteenth century (not too much importance should be attached to this difference as the amount of corporate stock outstanding was very small during the first few decades of this period), but of course, it was radically lower in the period 1930–51.

(3) It is only when account is taken of differences in the rate of population growth and, in particular, in the rate of change in the general price level that differences appear between the 1952–68 and 1901–29 periods, while those in the other two periods become even more accentuated (Table 3-8). In particular the rate of increase in the value of common stocks was considerably higher, with an annual average of 8 percent in the period 1952–68, than in either of the other periods. However, with slightly over 4 per cent, the rate of growth of all financial assets (deflated per head) was fractionally below that observed during the second half of the nineteenth century though it was considerably higher than that of the first three decades of this century and, of course, was far ahead of the rate prevailing between 1929 and 1951.

(4) The process of a considerable secular and practically uninterrupted increase in financial assets has been accompanied by substantial changes

TABLE 3-7

Average Annual Rate of Growth of Financial Assets, 1901–68

(*percent*)

		Claims[b]							Corporate Stock[c]		
			Against Nonfinancial Sectors			Against Financial Institutions					
	All Financial Assets[a] (1)	All (2)	All (3)	Federal Government (4)	Other (5)	All (6)	Banking System (7)	Other (8)	All (9)	Financial Institutions (10)	Other (11)
1961–1968	8.8	7.6	6.8	3.0	8.2	8.5	8.2	8.8	12.4	15.4	11.4
1952B–1960	7.0	6.1	5.8	1.0	8.6	6.4	2.8	9.5	11.2	13.2	10.8
1952B–1968	7.9	6.8	6.3	2.0	8.4	7.5	5.5	9.1	11.8	14.2	11.1
1930–1952A	4.2	5.4	4.9	12.6	2.6	6.3	6.6	5.9	0.7	0.6	0.7
1901–1929	7.7	7.0	6.8	9.5	6.6	7.4	7.2	7.6	9.4	7.5	9.7
1901–1952A	6.7	6.3	6.0	10.8	4.8	6.9	7.0	6.8	5.5	4.4	5.6

SOURCE: Table 3-6.
[a] Does not include proprietors' equities in unincorporated businesses.
[b] Face value.
[c] Market value.

TABLE 3-8

Distribution of Growth of Financial Assets Among Increase in Population, Price Level, and Deflated Assets per Head, 1850–1967

	Rate of Growth of Assets (percent per year)				Share in Growth of Total Assets (percent)			
	1952 to 1968 (1)	1930 to 1951 (2)	1901 to 1929 (3)	1850 to 1900 (4)	1952 to 1968 (5)	1930 to 1951 (6)	1901 to 1929 (7)	1850 to 1900 (8)
All Financial Assets								
1. Market value	7.90	4.40	7.70	6.70	100	100	100	100
2. Population	1.55	1.10	1.62	2.40	20	25	21	36
3. Assets per head[a]	6.35	3.30	6.08	4.30	80	75	79	64
4. Price level[b]	2.20	2.50	2.50	0	28	57	32	0
5. Deflated assets per head[c]	4.15	0.80	3.58	4.30	53	18	47	64
6. Deflated assets[d]	5.70	1.90	5.20	6.70	72	43	68	100
Claims								
1. Market value	6.80	5.70	7.00	6.60	100	100	100	100
2. Population	1.55	1.10	1.62	2.40	23	19	23	36
3. Assets per head[a]	5.25	4.60	5.38	4.20	77	81	77	64
4. Price level[b]	2.20	2.50	2.50	0	32	44	36	0
5. Deflated assets per head[c]	3.05	2.10	2.88	4.20	45	37	41	64
6. Deflated assets[d]	4.60	3.20	4.50	6.60	68	56	64	100
Corporate Common Stock								
1. Market value	11.70	0.70	9.30	7.00	100	100	100	100
2. Population	1.55	1.10	1.62	2.40	13	157	17	34
3. Assets per head[a]	10.15	−0.40	7.68	4.60	87	−57	83	66
4. Price level[b]	2.20	2.50	2.50	0	19	357	27	0
5. Deflated assets per head[c]	7.95	−2.90	5.16	4.60	68	−415	56	66
6. Deflated assets[d]	9.50	−1.80	6.80	7.00	81	257	73	100

SOURCES:
Cols. 1, 5. Appendix I.
Cols. 2, 3, 6, 7. Table 3-6.

[a] For columns 1 to 4, line 1 less line 2.
[b] Gross national product deflator.
[c] Line 3 less line 4.
[d] Line 1 less line 4.

TABLE 3-9

Structure of Financial Assets, 1900–68

(*percent*)

		Claims[b]							Corporate Stock[c]		
			Against Nonfinancial Sectors			Against Financial Institutions					
	All Financial Assets[a] (1)	All (2)	All (3)	Federal Govern-ment (4)	Other (5)	All (6)	Banking System (7)	Other (8)	All (9)	Financial Institu-tions (10)	Other (11)
1968	100.0	71.3	38.5	8.5	30.0	32.7	12.4	20.3	28.7	7.4	21.3
1960	100.0	77.7	44.4	13.2	31.3	33.3	13.0	20.3	22.3	4.6	17.6
1952B	100.0	83.7	48.8	21.0	27.8	34.9	17.9	16.9	16.3	3.0	13.4
1952A	100.0	83.0	47.6	21.5	26.0	35.5	20.9	14.6	17.0	1.9	15.0
1929	100.0	63.0	40.6	3.6	37.0	22.4	12.2	10.2	37.0	4.4	32.6
1900	100.0	76.3	52.1	2.2	49.9	24.2	13.8	10.4	23.7	4.6	19.1

SOURCE: Table 3-6.
[a] Does not include proprietors' equities in unincorporated businesses.
[b] Face value.
[c] Market value.

in the structure of financial assets (Table 3-9). The chief characteristic is the increasing share of corporate stock from one-sixth at the end of 1952 to nearly three-tenths in 1968 (and probably still one-fourth at the end of 1969). Among claims, the share of the liabilities of financial institutions has remained practically unchanged at approximately one-third of all financial assets. The decline in the share of all claims is therefore concentrated on the liabilities of the nonfinancial sectors, whose share in total financial assets fell from slightly less than one-half in 1952 to somewhat below two-fifths in 1968. Here the decline occurred mostly in the debt of the federal government, whose share in total financial assets declined sharply from over one-fifth to only one-twelfth during this period. It should be remembered, however, that at the end of 1952 relationships were still affected by the extraordinary expansion of the federal debt during World War II. Compared to 1929 or 1900, the decline in the share of claims in total financial assets is concentrated in the liabilities of nonfinancial sectors other than the federal government. This share stood at 30 percent at the end of 1968 compared to 37 percent in 1929 and to as much as 50 percent in 1900.

c. Total National Assets

National assets, defined as the sum of tangible and financial assets, increased, as Table 3-10 shows, between the end of 1952 and 1968 from $2,400 billion to fully $7,000 billion (market value or reproduction cost), or at an average annual rate of 7¼ percent. This was substantially above the average of 5½ percent for the first half of the century and that of 4 percent for the period 1930–52. It was higher, though only slightly, even when compared to the 6½ percent for the first three decades of the century.

If the increase in the current value of national assets is adjusted for the increase in population and the decline in the purchasing power of the dollar as measured by the national product deflator (Table 3-11), it appears that the rate of increase in the postwar period was considerably higher than that in the first half of the century as a whole, and that it was slightly above even the rate prevailing from 1901 through 1929. The more appropriate but much more difficult and problematical deflation by price index specific to the different components of national assets—a deflation intended to transform the current value figures into measurements of quantities—also seems to indicate that the rate of expansion of national assets in the postwar period was more rapid than it had been in either the first three or the first five decades of this century.

TABLE 3-10

The Growth of National Assets of the United States, 1900–68

	Aggregate ($billion)			Per Head ($000)		
	National Wealth (1)	Financial Assets (2)	National Assets (3)	National Wealth (4)	Financial Assets (5)	National Assets (6)
1900	88	59	147	1.1	0.8	1.9
1929	439	504	943	3.6	4.1	7.7
1952A	1,186	1,294	2,480	7.6	8.3	15.9
1952B	1,153	1,162	2,315	7.4	7.5	14.9
1960	1,895	2,001	3,896	10.5	11.0	21.5
1968	3,141	3,917	7,058	15.6	19.4	34.9

NOTE: All figures at end of year or period indicated.
SOURCES: Tables 3-4 and 3-6.

d. The Financial Interrelations Ratio

More directly relevant to the connection of the financial superstructure to the real infrastructure is the "financial interrelations ratio," the ratio of the total market value of financial assets to national wealth. The figures shown in Table 3-12 for six benchmark dates since the turn of the century (1900, 1929, 1945, 1952, 1960, and 1968) for all financial assets as well as for their main components.

The postwar period 1952–68 witnessed a substantial increase in the overall financial interrelations ratio from 1.01 to about 1.25.[6] Most of the increase occurred during the second half of the period. Between the end of 1951 and 1960 the ratio went up by 5 percentage points while between 1960 and 1968 it increased by 20 points, or nearly one-fifth. The 1968 value of the financial interrelations ratio was still considerably below

[6] The level of these figures is somewhat below some other estimates (e.g., R. W. Goldsmith and R. E. Lipsey, *Studies in the National Balance Sheet of the United States*, Vol. I, Princeton, Princeton University Press for NBER, 1963, p. 80) partly because the latter define some items in the national balance sheet on a grosser basis and include proprietors' equity in unincorporated business enterprises as a separate asset. Note also that the sharp decline in stock prices since late 1968 has somewhat reduced the current value of the ratio. As of mid-1970 it may be estimated to have fallen to below 1.20.

TABLE 3-11

Rates of Growth of National Assets and Components, 1952–68 vs. 1901–51

(*percent per year*[a])

	1901–51 (1)	1952–68 (2)	Difference (3)
I. National assets in current prices	5.60	7.20	1.60
1. Tangible assets[b]	5.20	6.50	1.30
a. Reproducible tangible assets	5.70	6.10	0.40
b. Land	3.80	8.30	4.50
2. Financial assets	6.10	7.90	1.80
a. Claims	6.20	6.80	0.60
b. Equities	5.30	11.80	6.50
3. Debt	6.30	6.80	0.50
4. Net worth	5.10	7.10	2.00
II. General price level	2.50	2.10	−0.40
III. Population	1.40	1.65	0.25
IV. National assets in constant (1929) prices on basis of general price level	3.10	5.10	2.00
V. National assets per head at constant prices	1.70	3.45	1.75

SOURCES:
1900–1951: *Studies in the National Balance Sheet,* Vol. I, p. 54 ff.; Vol. II, p. 117 ff.
1952–68: Tables 3-4 and 3-7.

[a] Calculated on the basis of value at beginning and end of period.
[b] Includes gold and net foreign assets.

the value reached at the end of World War II when price and wage controls and the sharp expansion of government debt and bank credit combined in lifting the ratio to an unprecedented level. The ratio was considerably higher, however, than the peaks reached before World War II in 1929 and again in 1939.[7]

Considerable differences are observed in the movements of the components of the financial interrelations ratio, differences which are closely

[7] If gross national product is used as the denominator of the ratio instead of national wealth, the direction of the movement is the same, but the changes are more pronounced. Thus, the ratio of the value of financial assets to national product rose from 3.7 in 1951 to 5.0 in 1968. The differences between the movements of the two ratios are, of course, due to changes in the wealth-income ratio.

TABLE 3-12

The Financial Interrelations Ratio, 1900–68

(percent of national wealth)

		Claims[b]							Corporate Stock[c]		
			Against Nonfinancial Sectors			Against Financial Institutions					
	All Financial Assets[a] (1)	All (2)	All (3)	Federal Government (4)	Other (5)	All (6)	Banking System (7)	Other (8)	All (9)	Financial Institutions (10)	Other (11)
1968	124.7	88.9	48.0	10.6	37.4	40.8	15.5	25.3	35.9	9.3	26.6
1960	105.6	82.1	46.9	13.9	33.0	35.1	13.7	21.4	23.5	4.9	18.6
1952B	100.8	84.3	49.2	21.1	28.0	35.1	18.0	17.1	16.5	3.0	13.5
1952A	109.1	90.6	51.9	23.5	28.4	38.7	22.8	15.9	18.5	2.1	16.4
1929	114.8	72.3	46.6	4.1	42.4	25.7	14.0	11.7	42.5	5.0	37.5
1900	66.7	50.9	34.8	1.5	33.3	16.1	9.2	6.9	15.8	3.1	12.7

SOURCES:
1900–51A: *Studies in the National Balance Sheet*, pp. 54–55, 72–73, 78–79, 100–101. *Financial Intermediaries*, p. 340 for col. 7; *ibid.*, Appendix F for col. 10.
1951B–68: *Flow of Funds Accounts 1945–1968*, pp. 52–61; Appendix I for cols. 9–11.

[a] Does not include proprietors' equities in unincorporated businesses.
[b] Face value.
[c] Market value.

connected with basic developments in the postwar financial economy. The ratios for both main components of financial assets increased between the end of 1952 and 1968. While the ratio of claims to national wealth rose only from 0.84 to 0.89, the parallel ratio for corporate stock more than doubled, from 0.17 to 0.36, mainly due to an increase in stock prices by about 350 percent or an average rate of fully 9 percent per year (reduced by mid-1970 to about 220 percent or 6½ percent per year). As a result the ratio of the market value of corporate stock to national wealth in 1968 was close to its all-time peak of the late 1920's.

Here again considerable differences exist between the first and the second half of the postwar period. The ratio of the value of stocks to national wealth increased by 7 points in the period 1952–60 but by over 12 points in 1961–68, i.e., by fully two-fifths and one-half, respectively, of its starting value. On the other hand, the ratio of claims to national wealth, after declining slightly in the first period, advanced by 7 points, or nearly one-tenth, during the 1960's.

For a better understanding of the situation it is necessary to distinguish claims owed by nonfinancial sectors from those incurred by financial institutions. The first of these ratios decreased fractionally over the whole period. On the other hand, the ratio of claims against financial institutions to national wealth advanced over the period by five points or by one-seventh. As a result, the ratio of claims against financial institutions to those against the nonfinancial sectors had risen to 0.80 in 1968 compared to 0.72 at the beginning of the period.

Significant changes also occurred within the two main categories of claims. In the case of claims against nonfinancial sectors the share of the federal government declined sharply, from nearly 45 percent at the end of 1952 (already down substantially from the nearly two-thirds in 1945) to not much over one-fifth at the end of 1968, as the absolute amount of Treasury securities outstanding increased by only 40 percent in the face of an almost fourfold increase in the debt of business, households, and state and local governments. Similarly among claims against financial institutions the liabilities of the banking system declined from one-half in 1952 (and fully two-thirds in 1945) to only approximately two-fifths in 1968. Thus, the structure of claims changed in the direction of an expansion of the share of corporate, household, and state and local government debt and of the liabilities of nonbank financial institutions at the expense of the liabilities of the federal government and the banking system.

Developments during 1969 and the first half of 1970 (which are not covered in the statistical framework underlying this study) particularly the decline in common stock prices by about one-fourth, have undone a substantial part of the changes that occurred during the postwar period and particularly during the 1960's. Thus, the share of the market value of stock to national wealth may be estimated to have fallen back in mid-1970 to well below 0.30 against the ratio of 0.36 which it had reached at the end of 1968, but to have remained well above the value it had at the end of 1960. Similarly, the stocks-claims ratio in the national balance sheet was down to approximately 30 percent by mid-1970 against 40 percent at the end of 1968, returning to the levels prevailing at the beginning of the century but still remaining considerably above the minimum of about one-fifth reached between the end of World War II and 1952.

The movements of the financial interrelations ratio during this century are easier to follow in Table 3-13, which shows the average annual rate of change between five benchmark dates. Compared to an average annual rise of 1.1 percent for the entire period 1900–68—a trend which would double the ratio every 65 years—the average rate of increase of the ratio in the postwar period 1952–68 was 1.3 percent. This was mainly the result of a very rapid rise at the rate of 2.1 percent per year in the second half of the period, in which a sharp increase in the value of financial assets, both stocks and claims, was combined with a relatively slow (6½ percent) rate of growth of national wealth at current prices. Even this rate remained considerably below the extraordinarily rapid increase in the rate in the 1920's, which was close to 4 percent per year for the period 1923–29, the result primarily of a very rapid rise in the value of stock outstanding at an annual rate of 13½ percent—well above that of the postwar period or its two halves—in the face of a much slower rate of increase in the volume of claims (5½ percent) and a relatively modest expansion in national wealth at current prices (4 percent).

Table 3-14, which uses gross national product as denominator instead of national wealth, shows generally the same movements and relations. This is to be expected, as these ratios are linked to the financial interrelations ratio by the capital-output ratio (national wealth divided by national product), which has not moved sharply between the five benchmark years. The ratios of financial assets to national product are given, although they are conceptually inferior to the financial interrelations ratio (the denominator being the flow rather than the stock dimension) because figures on national product are available for many more dates and countries than are those for national wealth. Some differences in the movements of the two sets of ratios are, however, noticeable if the two halves of the

TABLE 3-13

Average Annual Rate of Growth in Financial Interrelations Ratio, 1901–68

(*percent*)

		Claims[b]							Corporate Stock[c]		
			Against Nonfinancial Sectors			Against Financial Institutions					
	All Financial Assets[a] (1)	All (2)	All (3)	Federal Govern-ment (4)	Other (5)	All (6)	Banking System (7)	Other (8)	All (9)	Financial Institu-tions (10)	Other (11)
1961–68	2.1	1.0	0.9	−3.4	3.6	1.9	1.6	2.1	5.5	8.3	4.6
1952–60	0.6	−0.3	−0.6	−5.3	2.1	0.0	−3.5	2.8	4.5	6.3	4.1
1952–68	1.3	0.3	−0.1	−4.4	1.8	0.9	−0.9	2.5	5.0	7.3	4.3
1930–51	−0.2	1.0	0.6	8.2	−1.8	1.9	2.2	1.4	−3.9	−4.0	−5.3
1901–29	1.9	1.2	1.0	3.6	0.8	1.6	1.5	1.8	3.5	1.7	3.8
1901–51	1.0	1.1	0.8	5.5	−0.3	1.7	1.8	1.6	0.3	−0.8	0.5

SOURCE: Table 3-12.
[a] Does not include proprietors' equities in unincorporated businesses.
[b] Face value.
[c] Market value.

TABLE 3-14

Relation of Financial Assets to GNP

(*percent*)

	All Financial Assets[a]	Claims[b]							Corporate Stock[c]		
			Against Nonfinancial Sectors			Against Financial Institutions					
		All	All	Federal Govern-ment	Other	All	Banking System	Other	All	Financial Institu-tions	Other
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1968	452.4	322.3	174.2	38.5	135.7	148.1	56.3	91.8	130.1	33.6	96.5
1960	397.2	308.6	176.4	52.3	124.1	132.2	51.6	80.6	88.5	18.4	70.1
1952B	336.0	281.1	163.9	70.5	93.4	117.2	60.2	56.9	54.9	10.0	44.9
1952A	374.4	310.9	178.1	80.6	97.5	132.8	78.2	54.6	63.5	7.2	56.3
1929	488.8	307.8	198.4	17.7	180.7	109.4	59.7	49.7	181.1	21.3	159.7
1900	404.8	309.0	211.0	9.0	202.1	97.9	55.9	42.1	95.9	18.6	77.2

Source: Table 3-6.
[a] Does not include proprietors' equities in unincorporated businesses.
[b] Face value.
[c] Market value.

postwar period are compared. Because the capital-output ratio increased considerably between 1952 and 1960 and declined slightly from 1960 to 1968, the increase in the ratio of financial assets to national product is about the same in the two halves of the period while the ratio of financial assets to national wealth (the financial interrelations ratio) increases much more rapidly in the second than in the first half of the postwar period.

e. Distribution of National Assets and Their Main Components Among Sectors

In view of the rapid expansion of the economy and of the sharp changes that have occurred during the postwar period in the prices of land, structures, and corporate stock, it is remarkable that the distribution of national assets and its two main components, tangible and financial assets, as shown in Table 3-15, changed little during the postwar period.

In terms of their total assets, the shares of the three largest sectors changed only fractionally. Households increased their share very slightly; the share of business declined moderately from 26 to 22 percent, mainly because of a substantial relative decline in the share of farm business from nearly 6 to 3½ percent; and the share of finance rose fractionally from 18 to 20 percent. The two government sectors together accounted for 11 percent of national assets in 1952, 1960, and 1968. However, the share of the federal government declined considerably over the period while that of state and local governments increased.

The distribution of tangible assets also showed only moderate changes, the most important of which were the increase in the share of state and local governments from 12 to 17 percent and a small decline in the share of business from 44 to 40 percent, again attributable mainly to agriculture. The shifts are more pronounced if attention is focused on the two main components, land and reproducible tangible assets. Changes in the distribution of the value of land are dominated by the sharp decline in the share of agriculture from 34 to 21 percent, reflecting the less rapid—though in absolute terms still very substantial—increase in the price of farm land. This was offset by substantial increases in the shares of households, corporate business, and state and local governments, all reflecting the rapid appreciation of urban land. More interesting are changes in the distribution of reproducible assets, because they result largely from differences in the rate of increase of capital formation rather than predominantly from price changes as is the case for land. Such changes, however, were moderate—a substantial increase in the share of state and local governments from 12 to 17 percent, small declines in the shares of

TABLE 3-15

Distribution of National Assets and Chief Components Among Sectors, 1952, 1960, and 1968

(all domestic sectors = 100)

			Nonfinancial Business				Government		
					Unincorporated				
	Households	Nonprofit Institutions	Total	Corporations	Agriculture	Other	Federal	State and Local	Financial
I. Total assets									
1952	44.0	1.3	25.7	16.3	5.8	3.6	4.9	6.2	17.8
1960	45.2	1.6	23.5	15.8	4.5	3.2	4.2	7.2	18.3
1968	45.4	1.7	21.9	15.1	3.7	3.1	3.5	7.8	19.7
II. Tangible									
1952	34.6	2.1	44.2	25.2	12.4	6.6	6.5	12.1	0.5
1960	36.2	2.4	39.9	24.1	9.7	6.1	6.4	14.4	0.7
1968	34.2	2.8	39.8	24.6	8.6	6.6	5.1	16.8	0.9
1. Land									
1952	28.9	3.1	48.8	10.4	33.1	5.3	5.3	11.6	2.3
1960	36.1	3.6	40.6	13.6	22.6	4.4	4.5	14.7	0.6
1968	35.1	4.0	39.8	14.4	21.3	4.1	4.7	15.5	1.0

2. Reproducible									
1952	35.8	1.8	43.0	28.4	7.7	6.9	6.7	12.2	0.5
1960	36.2	2.1	39.6	27.1	6.0	6.5	7.0	14.3	0.8
1968	33.9	2.5	39.9	27.7	4.8	7.4	5.6	17.2	0.9
III. Financial									
1952	24.4	1.1	16.9	14.2	0.9	1.8	5.6	2.3	49.6
1960	52.5	0.9	10.3	9.1	0.3	0.9	2.5	1.4	32.5
1968	53.4	0.9	9.1	8.3	0.2	0.6	2.1	1.4	33.1
1. Short-term									
1952	29.1	0.0	24.5	20.2	1.4	2.9	9.3	2.3	34.7
1960	32.6	0.0	25.4	22.2	0.8	2.4	6.3	2.6	33.1
1968	35.8	0.0	22.6	20.5	0.5	1.6	5.8	3.1	32.8
2. Long-term									
1952	45.5	0.7	2.1	2.1	—	—	0.6	2.0	49.0
1960	46.5	0.7	0.9	0.9	—	—	0.7	1.6	49.6
1968	44.2	0.5	0.6	0.6	—	—	0.7	1.5	52.3
3. Corporate stock									
1952	76.8	3.3	—	—	—	—	—	—	19.9
1960	73.5	3.0	—	—	—	—	—	—	23.5
1968	74.8	2.3	—	—	—	—	—	—	22.9
IV. Liabilities									
1952	9.8	0.3	19.7	17.0	1.4	1.3	25.1	3.4	41.7
1960	13.9	0.6	20.9	17.7	1.5	1.7	16.9	4.8	42.8
1968	14.7	0.7	21.9	17.9	1.8	2.2	11.9	4.8	45.9

(continued)

TABLE 3-15 (*concluded*)

			Nonfinancial Business				Government		
					Unincorporated				
	Households	Nonprofit Institutions	Total	Corporations	Agriculture	Other	Federal	State and Local	Financial
IV. Liabilities (cont.)									
1. Short-term debt									
1952	7.7	—	22.8	20.7	1.3	0.8	14.1	0.5	54.8
1960	10.1	0.1	24.3	21.2	1.4	1.7	12.1	0.5	53.0
1968	11.4	0.2	23.7	20.4	1.6	1.7	8.9	0.6	55.2
2. Long-term debt									
1952	12.1	0.7	16.3	13.0	1.6	1.7	37.1	6.5	27.2
1960	17.8	1.2	17.6	14.1	1.7	1.8	21.8	9.2	32.4
1968	18.2	1.3	20.1	15.3	2.1	2.7	15.2	9.2	35.9
3. Net worth									
1952	65.7	1.9	29.5	15.8	8.6	5.1	−7.9	8.0	2.7
1960	64.1	2.1	25.1	14.7	6.3	4.1	−3.4	8.6	3.4
1968	64.0	2.3	21.8	13.3	4.9	3.6	−1.6	9.7	3.9

household and corporate business, and a substantial reduction in the share of agriculture.

Financial assets in the aggregate showed only small changes in distribution, a modest increase in the share of households and a decline in that of business. The share of financial institutions remained practically stable at slightly below one-third of the total.

There were more movements in the distribution of the main types of financial assets, particularly short-term claims. Here the share of households increased considerably, from 29 to 35 percent, while that of business declined from 24 to 22 percent, probably reflecting both a carry-over of excess liquidity from the war at the beginning of the period and the more effective management of liquid assets in the following two decades. The share of financial institutions showed a small net decline between 1952 and 1968. The distribution of long-term claims changed little, as a small decline in the share of households and a relatively substantial reduction in that of business were offset by an increase in the share of financial institutions from 49 to 52 percent, which testifies to the continuing high degree of institutionalization of long-term debt financing. The distribution of corporate stock, particularly interesting for this investigation, changed little. The share of financial institutions rose from 20 to 23 percent.

Much more pronounced changes appear in the distribution of debt among the sectors and reflect primarily the small expansion of the federal debt in absolute terms and its sharp reduction in proportion to all debt from 25 to 12 percent. As a consequence the share of all other sectors increased, although in varying proportions. The increase was sharpest for households, whose share rose from 10 to 15 percent of the total, and was substantial in relative terms for state and local governments, with a rise from 3½ to 4 percent. The increase in the share of business was moderate. On the other hand, the share of financial institutions increased from 42 to 46 percent, another indication of the continuing institutionalization of the financial process. Changes were similar in direction and extent for short- and for long-term debt, the declining share of the federal government being somewhat more pronounced in the case of long-term debt, where its share was cut by three-fifths, than for short-term obligations.

In view of the relative stability of the distribution of tangible and financial assets and liabilities among sectors, it is not astonishing that changes in the share of net worth were also moderate. The most important of these was the reduction, and indeed the near disappearance, of the

TABLE 3-16

Growth of Total Assets of Main Sectors, 1952–68

	Growth (1952=100)		Annual Growth Rate (percent)		
	1960	1968	1953 to 1960	1961 to 1968	1953 to 1968
	(1)	(2)	(3)	(4)	(5)
I. Households	169	305	6.8	7.6	7.2
II. Nonprofit institutions	197	376	8.8	8.4	8.6
III. Unincorporated business	135	213	3.8	5.9	4.8
1. Agricultural	127	188	3.0	5.0	4.0
2. Other	148	254	5.0	7.0	6.0
IV. Nonfinancial corporations	160	274	6.0	6.9	6.5
V. Federal government	144	212	4.7	4.9	4.8
VI. State and local government	191	372	8.4	8.7	8.6
VII. Finance	169	327	6.8	8.6	7.7
1. Banking system[a]	127	235	3.0	8.0	5.5
2. Other	210	416	9.7	8.9	9.3
VIII. All sectors	165	296	6.5	7.6	7.0
IX. General price level (GNP deflator)	118	142	2.1	2.3	2.2

SOURCE: Appendix I.
[a] Federal Reserve System and commercial banks.

negative net worth (excess of debt over assets) of the federal government.[8] Next in importance was the decline in the share of unincorporated business, both farm and nonfarm, which is responsible for most of the reduction of the share of total business from 29 to 22 percent of national net worth.

The changes in the distribution of national assets and their components just discussed are, of course, the result of differences in the growth rate of the aggregates and the main components of the assets of the different sectors. These are shown in Table 3-16.

[8] If military assets, excluded from Table 3-15 and throughout this discussion, were included, the federal government's net worth would be positive throughout, but probably declining.

For the period as a whole, for which total assets increased at an average rate of 7.0 percent per year, the most rapidly expanding sector was nonbank financial institutions, with an average annual growth rate of 9.3 percent, while the slowest-growing sector was unincorporated agricultural businesses, with a rate of only 4.0 percent a year. Ranking of the sectors was similar in the two subperiods, although the lead of the nonbank finance sector was much smaller in the second than in the first half of the period, and the most slowly growing sector in the second subperiod was the federal government rather than agriculture, which held that position in the first subperiod.

These rates of growth are the combined result of the sector's saving, its net external financing, and the increase in prices which affected its assets. For all sectors together, external financing and the residual primarily reflecting valuation changes (price increases) each accounted for approximately two-fifths of the increase in the value of assets between 1952 and 1958 as well as in both subperiods, leaving one-fifth to net saving. The share of valuation changes, however, was considerably higher than this for households and very much lower for financial institutions because the share of corporate stock in their total assets was low. External financing entirely dominated the increase in assets of the finance sector and, next to it, of the federal government, and was least important for households. Equity financing, however, was almost negligible in the two sectors in which it existed—nonfinancial corporations and finance. In both cases it accounted for only about 3 percent of the expansion of assets including, and 5 percent excluding, valuation changes.

An understanding of the changes in the distribution of national assets and its components among sectors, and of the rate of growth of total assets of the different sectors, requires an analysis of the balance sheets and flow of funds accounts of these sectors. While both statements have been constructed on an annual basis for the period from 1952 to 1968, after their completion there was not sufficient time for an adequate analysis. For the purposes of this report we shall have to be satisfied with a summary of the structure of the sectoral balance sheets for the three benchmark dates of 1952, 1960, and 1968, presented in Tables 3-17 and 3-18, and with a listing of a number of changes regarded as significant. This limitation is to some extent justified because some aspects of the structure of, and changes in, financial assets of households are discussed in Chapter 5, section 2; because a breakdown of the assets of the household sector by size of wealth for at least one recent date is presented in Appendix V; and because the position of corporate stock in the balance sheets and flow of

TABLE 3-17

Structure of Sectoral Balance Sheets, 1952, 1960, and 1968

(percent of total assets, except line VI)

	Households			Nonprofit Institutions[a]			Unincorporated Business[b]			Nonfinancial Corporations		
	1952 (1)	1960 (2)	1968 (3)	1952 (4)	1960 (5)	1968 (6)	1952 (7)	1960 (8)	1968 (9)	1952 (10)	1960 (11)	1968 (12)
I. Tangible assets	35.0	35.9	31.3	69.5	68.7	70.3	89.6	91.1	92.9	69.0	68.3	68.0
1. Land	5.3	8.0	7.5	19.0	22.9	23.0	33.0	34.8	36.0	5.2	8.6	9.2
2. Reproducible assets	29.7	28.0	23.8	50.5	45.8	47.3	56.6	56.4	56.9	63.8	59.8	58.7
a. Structures	21.5	20.4	16.9	45.3	41.8	44.7	22.1	24.0	29.8	28.5	26.4	24.4
b. Producer durables	—	—	—	5.1	4.0	2.6	18.7	19.6	16.7	19.1	19.9	20.9
c. Consumer durables	8.2	7.5	6.9	—	—	—	—	—	—	—	—	—
d. Inventories	—	—	—	—	—	—	15.8	12.7	10.5	16.2	13.4	13.4
II. Financial assets	65.0	64.1	68.7	30.5	31.3	29.7	10.4[i]	8.9[i]	7.1[i]	31.0	31.7	32.0
1. Short-term claims	13.0	12.7	14.3	0.3[h]	0.3[h]	0.4[h]	9.1	7.4	5.4	24.4	24.7	24.7
2. Long-term claims	19.1	19.2	17.7	9.7	8.4	5.7	—	—	—	2.4[j]	1.0[j]	0.8[j]
3. Corporate stock	12.9	17.2	24.6	18.7	20.1	20.6	—	—	—	—[k]	—[k]	—[k]
4. Miscellaneous assets	19.9[g]	15.0[g]	12.1[g]	1.8	2.5	3.0	1.2	1.5	1.7	4.2	5.9	6.5
III. Total assets	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
IV. Liabilities	8.6	11.6	12.2	10.3	15.1	16.6	11.1	15.8	22.3	40.6	42.1	44.8
1. Short-term[e]	3.6	4.3	4.9	0.0	0.9	2.3	4.6	7.5	9.6	25.8	25.5	26.5
2. Long-term[f]	5.1	7.3	7.3	10.3	14.1	14.3	6.4	8.3	12.7	14.8	16.6	18.3
V. Net worth	91.4	88.4	87.8	89.7	84.9	83.4	88.9	84.2	77.7	59.4	57.9	55.2
VI. Total assets ($billion)	1,103.2	1,867.3	3,363.8	33.1	65.1	124.6	236.6	319.6	505.0	407.7	652.9	1,115.2

	Federal Government[c]			State and Local Governments[d]			Finance		
	1952 (13)	1960 (14)	1968 (15)	1952 (16)	1960 (17)	1968 (18)	1952 (19)	1960 (20)	1968 (21)
I. Tangible assets	59.0	68.1	64.6	86.6	89.6	89.3	1.1	1.7	2.0
1. Land	8.8	10.5	13.0	15.2	20.4	19.1	0.1	0.3	0.5
2. Reproducible assets	50.2	57.6	51.6	71.4	69.3	70.2	1.0	1.4	1.5
a. Structures	39.4	40.3	40.0	67.1	64.1	64.8	0.6	0.7	0.8
b. Producer durables	4.6	6.7	6.1	4.3	5.2	5.4	0.4	0.7	0.6
c. Consumer durables	—	—	—	—	—	—	—	—	—

I. Inventories	6.1	10.6	5.4	—	—	—	—	—	—
II. Financial assets	41.0	31.9	35.4	13.4	10.4	10.7	98.9	98.3	98.0
1. Short-term claims	37.7	26.3	30.0	7.3	6.3	7.1	38.3[l]	31.9[l]	30.2[l]
2. Long-term claims	2.4	3.3	3.8	6.1	4.1	3.6	50.9	50.7	48.1
3. Corporate stock	—	—	—	—	—	—	8.3	13.6	17.3
4. Miscellaneous assets	1.0	2.3	1.6	—	—	—	1.3	1.9	2.4
III. Total assets	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
IV. Liabilities	199.7	150.3	129.0	21.0	25.1	22.9	90.6	88.3	87.8
1. Short-term[e]	59.0	54.3	50.2	1.6	1.2	1.6	62.5	55.2	54.9
2. Long-term[f]	140.7	95.9	78.8	19.4	23.8	21.3	28.1	33.1	32.8
V. Net worth	−99.8	−50.3	−29.0	79.0	74.9	77.1	9.4	11.7	12.2
VI. Total assets ($billion)	122.0	175.2	258.2	155.9	297.3	580.3	446.8	754.5	1,460.8

SOURCE: Appendix I.

[a] Covers only foundations and educational institutions.

[b] Agricultural and nonagricultural businesses.

[c] Excludes military assets.

[d] Excludes state and local government pension funds, which are included in cols. 19–21.

[e] Includes miscellaneous liabilities.

[f] Mortgages only in cols. 1–9.

[g] Mostly equity in unincorporated business enterprises at value of their net worth (line V, cols. 7–9).

[h] Only currency and demand deposits.

[i] Only financial assets primarily associated with business activities; hence excludes securities and insurance claims of proprietors.

[j] Bonds only.

[k] Intercorporate stockholdings excluded.

[l] Includes currency and demand deposits (1952: 30.8 percent; 1960: 20.2 percent; 1968: 14.5 percent).

TABLE 3-18

Structure of Balance Sheet of Unincorporated Farm and Nonfarm Business Enterprises, 1952, 1960, and 1968

(*percent, except line VI*)

	Farm Enterprises			Nonfarm Enterprises		
	1952 (1)	1960 (2)	1968 (3)	1952 (4)	1960 (5)	1968 (6)
I. Tangible assets	94.3	95.7	96.6	82.0	84.4	88.4
1. Land	46.0	49.7	55.3	12.0	13.7	12.6
2. Reproducible assets	48.3	46.0	41.3	70.0	70.7	75.8
a. Structures	20.0	20.8	18.2	25.7[a]	28.5[a]	43.7[a]
b. Producer durables	12.6	12.9	12.4	28.7	29.1	21.8
c. Inventories[b]	15.9	12.3	10.7	15.6	13.2	10.2
II. Financial assets	5.7	4.1	3.4	17.8	15.5	11.6
1. Short-term claims	4.9	3.1	2.2	15.9	13.2	9.3
2. Miscellaneous assets	0.8	1.0	1.2	1.9	2.3	2.3
III. Total assets	100.0	100.0	100.0	100.0	100.0	100.0
IV. Liabilities	9.5	12.6	18.6	13.6	20.1	26.8
1. Short-term	4.6	5.8	8.6	4.7	9.9	10.8
2. Long-term[c]	4.9	6.8	10.0	8.9	10.2	16.0
V. Net worth	90.5	87.4	81.4	86.4	79.9	73.2
VI. Total assets ($billion)	146	187	276	90	133	229

Source: Appendix I.
[a] Of which residential structures: 16.4; 16.3; 26.6.
[b] Including livestock.
[c] Mortgages.

funds of financial institutions forms the subject of section 5 of this chapter.

1. The main change in the structure of the balance sheet of the household sector is the increase in the share of corporate stock from 13 percent at the end of 1952 to 25 percent in 1968, a change completely due to the rise in stock prices during the period, as households showed a net sales balance of stock for the period as a whole.

2. Apart from the effects of the increase in stock prices on the distribution of assets of households some interest attaches to the increase in the share of short-term claims, mainly claims against financial institutions; the decline in the share of residential structures in contrast to the increase

in the share of land, which again reflects a price movement; the possibly unexpected decline in the share of consumer durables, which is attributable to the relatively slower rise in their prices; and to the modest increase in the debt-asset ratio, both for consumer credit and for home mortgages.

3. In agriculture the main changes on the asset side are the sharp increase in the share of land from 46 to 55 percent, reflecting a rapid increase in prices, and the proportionally even sharper decline in the share of livestock and other inventories. At the same time the debt-asset ratio, which had fallen to historically very low levels during World War II, doubled between 1952 and 1968, both for short- and for long-term liabilities.

4. Changes in the structure of assets of unincorporated nonfarm business enterprises were dominated by the sharp increase in the share of structures in the 1960's, mainly reflecting the rapid acceleration of multifamily residential construction. This development is also responsible for most of the rapid increase in mortgage debt in the 1961–68 period. The proportionally very pronounced decline in the share of producer durables, inventories, and liquid assets reflects the relatively low rate of growth of unincorporated nonfarm enterprises outside the real estate field.

5. Changes in the structure of the balance sheets of nonfinancial corporations were relatively small. The sharp increase in the share of land, of course, again reflects price movements. The declining share of structures continues a long-term trend.

6. The outstanding feature in the changes in the structure of the federal government is the reduction of the debt-asset ratio by one-third and the even sharper reduction in the long-term debt ratio, the result of a relatively small expansion of the absolute volume of debt in the face of a substantial increase in both the volume and price of assets.

7. Changes are again relatively small in the structure of the balance sheets of state and local government over the period as a whole, a substantial increase in the debt-asset ratio during the first period being partly undone in the second subperiod.

8. In the financial sector the main changes, at the high level of aggregation of Table 3-17, are a sharp increase, from 8 to 17 percent, in the share of corporate stock in assets; the reduction in the share of short-term claims in total assets from nearly 40 to 30 percent, mainly during the first subperiod; and the halving of the share of monetary liabilities in total liabilities and net worth, also primarily occurring during the first subperiod. These two changes reflect the much lower rate of growth of the

assets of the banking system compared to nonbank financial institutions during the first subperiod, a development which did not continue during the second subperiod.

3. THE DETERMINANTS OF NEW ISSUES AND TOTAL ASSETS OF FINANCIAL INSTITUTIONS

It remains to inquire briefly into the relation of some basic economic factors to the volume of new issues by financial institutions and the size of their total assets in the postwar period. These factors have been selected because statistics are available for them and the algebraic relations are simple, but they are only the immediate statistical determinants of the two magnitudes studied—new issues and assets of financial institutions. Each of them is, in turn, dependent on many other factors. An exploration of these ultimate factors would be necessary for an understanding of the level and movements of issues and assets of financial institutions, but such an inquiry would go far beyond the boundaries of this summary survey.

In Table 3-19 the decomposition of the change in assets of financial institutions discussed in Chapter 1 is applied to flow of funds data for the period 1952 through 1969. This means that the ratio of the change in the issues of financial institutions (monetary authorities, commercial banks, nonbank financial institutions, and federally sponsored lending agencies as defined in the flow of funds statistics) to gross national product is regarded as the sum of two ratios: (1) the ratio of the change in money outstanding to gross national product and (2) the ratio to national product of the change in household thrift deposits and claims against insurance organizations plus household purchases of open-end investment company stock. These two numerators leave (3) a rather heterogeneous remainder that includes, among other things, the issues of financial institutions other than the banking system, insurance organizations and investment companies, the issues of financial institutions to nonhouseholds (including, e.g., the recently important large certificates of deposit and Eurodollars), and changes in the net worth of all corporate financial institutions. The second ratio, in turn, is the product of four ratios: the ratio of personal disposable income to gross national product (p); the ratio of gross saving (as defined in the national accounts) to personal disposable income (s); the ratio of the acquisition of financial assets by households to their personal saving (c); and the ratio of the change in thrift deposits, claims against insurance organizations, and acquisitions of open-end investment companies stock to the net acquisition of financial assets (t).

TABLE 3-19

Determinants of New-Issue Ratio of Financial Institutions, 1952–69

	Aggregate-Issue Ratio[a] (1)	Money-Issue Ratio[b] (2)	Household Claims Against Financial Institutions: Total[c] (3)	*p* (4)	*s* (5)	*c* (6)	*t* (7)	Residual (1) – (2 + 3) (8)
			Annual Data					
1952	7.93	1.90	4.72	.69	22.0	.42	0.74	1.31
1953	6.42	0.00	4.52	.69	22.4	.39	0.75	1.90
1954	7.62	1.23	4.85	.71	21.2	.37	0.87	1.54
1955	7.59	0.58	4.50	.69	22.4	.41	0.71	2.51
1956	6.30	0.43	4.78	.70	22.8	.41	0.73	1.09
1957	6.17	0.16	5.08	.70	22.3	.37	0.88	0.93
1958	8.41	1.30	5.55	.71	21.4	.43	0.85	1.56
1959	6.76	0.30	5.05	.70	21.5	.43	0.78	1.41
1960	7.25	0.02	4.98	.69	20.6	.34	1.03	2.25
1961	9.65	1.08	5.97	.70	20.8	.41	1.00	2.60
1962	10.42	0.80	6.88	.69	21.3	.45	1.04	2.74
1963	10.50	0.98	6.55	.69	21.1	.50	0.90	2.97
1964	10.64	1.17	6.45	.69	22.4	.48	0.87	3.02
1965	11.05	1.11	6.84	.69	23.0	.49	0.88	3.10
1966	8.58	0.35	5.62	.68	23.7	.42	0.83	2.61
1967	11.20	1.80	7.02	.69	23.8	.47	0.91	2.38
1968	11.35	1.24	5.89	.68	24.0	.41	0.88	4.22
1969	8.50	0.71	3.99	.68	23.3	.34	0.74	3.80
			Cycle Averages[d]					
1953–57	6.95	0.58	4.73	.70	22.2	.39	0.78	1.64
1957–60	7.29	0.56	5.21	.70	21.5	.41	0.86	1.52
1960–69	10.14	0.99	6.19	.69	22.5	.44	0.91	2.96
1960–65	10.07	0.92	6.35	.69	21.7	.45	0.95	2.80
1965–69	10.23	1.08	5.99	.69	23.7	.43	0.86	3.17
			Period Average					
1952–69	8.69	0.84	5.51	.69	22.2	.42	0.86	2.33

Notes to Table 3-19

p = ratio of personal disposable income to gross national product.
s = gross personal saving divided by personal disposable income (percent).
c = ratio of acquisition of financial assets by households to personal saving.
t = ratio of change in household claims against financial institutions to acquisition of claims by households.

SOURCE: Basic data from *Flow of Funds Accounts*.

[a] Increase in liabilities of financial institutions plus sales of investment-company stock divided by gross national product (percent).

[b] Change in demand deposits and currency divided by GNP (percent).

[c] Change in household claims against financial institutions plus sales of investment-company stock divided by GNP (percent).

[d] First and last years of cycle given half weight of other years in cycle.

For the seventeen-year period 1952–69 the aggregate-issue ratio averaged about 9 percent, ranging from 6.2 to 11.3 percent (see Table 3-19). The money-issue ratio fluctuated without a definite trend from −0.2 to +1.9 percent with an average of about 0.85 percent for the entire period. The ratio of changes in thrift deposits, claims against insurance organizations, and acquisition of stock of open-end investment companies to gross national product averaged about 5½ percent with a low of 4.6 and a high of 6.9 percent and a slow upward trend over the period. As a result, the remainder term averaged about 2½ percent, ranging between 1.1 and 4.0 percent and also showing an upward trend. The sharp rise in the second half of the 1960's is partly due to the greatly increased importance of large certificates of deposit, commercial paper by banks, holding companies, and Eurodollar deposits. The irregular movements of the residual are, in part, a reflection of its heterogeneous character and the fact that it absorbs all errors in the other three terms.

Of the four components of ratio (2), above, the first, p, averaged slightly under 70 percent with only small fluctuations from year to year and without a trend. Fluctuations were also fairly small in the gross personal saving ratio (s), which ranged from 20.6 to 23.8 percent with an average of about 22 percent and only a very mild and not very definite upward trend. Annual fluctuations were considerably larger in the two other components: c averaged about 42 percent, fluctuating between 34 and 49 percent. Similarly, t, which had an average for the period as a whole of 90 percent, fluctuated between a low of 74 and a high of 103 percent. As a result, ratio (2) showed an upward trend from about 4½ percent in the early 1950's to about 6½ percent in the 1960's.

The crucial feature of the increasing trend in the new-issue ratio of financial institutions in the postwar period, then, are the movements in the share of saving through financial institutions (disregarding check deposits with commercial banks). These were sharply upward from the early 1950's to the peak of 1960–62, when saving through nonmonetary financial institutions came to account for the totality of personal financial saving; then slowly downward with troughs in 1966 and 1969, two years of marked "disintermediation" accompanying extraordinarily high levels of interest rates on marketable fixed-interest-bearing securities.

There is some indication that part, if not most, of the changes in the ratios are associated with business cycle movements. The relationship, however, is not very definite, which is not astonishing, since only annual data are used and the postwar recessions were relatively short and did not coincide with calendar years. All that can possibly be said is that the total aggregate-issue ratio as well as most of its components are positively associated with the business cycles, showing in general the highest values during the upswing. However, these values are reached in some cases in the earlier, and in others in the later, phases of the upswing. One component, however, saving through thrift deposits, claims against insurance organizations, and open-end investment company shares, is inversely related to the business cycle, reaching its highest values usually in or close to recession years. Using econometric methods, an attempt is made, in Chapter 5, section 2, to relate some of these series to each other and to broad economic factors such as interest rates.

Since most of the assets of financial institutions consist of claims that do not vary in market value or are subject only to relatively small fluctuations (fluctuations, moreover, that are not reflected in the customary statistics), the value of reported assets is essentially equal to the sum of past net acquisitions of assets, a magnitude which in turn is equal to the cumulation of net issues broadly defined to include retained earnings. An explanation of the level and movements of net issues acquired by financial institutions thus provides at the same time most of the explanation of the trend in assets of financial institutions.

This assertion must be qualified because in the postwar period financial institutions have held an increasing proportion of their assets in the form of corporate stock, which is subject to considerable price fluctuations. The share of corporate stocks in total assets rose from 7 percent at the end of 1951 to 17 percent in 1966 if personal trust funds are included, while the advance was from 3 to 11 percent if they are excluded, as in the flow of funds statistics used here. As a result, part of the change in the reported value of the assets of financial institutions reflects changes in stock prices rather than net purchases. This part may be estimated at one-eighth of the total reported increase in assets for the whole period 1952–68 *if* personal trust funds are included and at one-twelfth if they are excluded. Since stock prices have fluctuated considerably over this period as has the intensity of net purchases of stocks by financial institutions, and since the ratio of stocks to total assets varies for the different types of financial institution, the relative importance of the change in stock prices has fluctuated sharply over time and as between institutions.

4. THE SUPPLY OF CORPORATE STOCK

The outstanding characteristic of the supply of stock of nonfinancial corporations during the postwar period is its very low absolute and relative level. For the entire seventeen-year period from 1952 through 1968, gross issues of corporate stock averaged approximately $3.5 billion. Because retirements amounted to nearly $2 billion per year, the annual increase in the net supply of stock was only about $1½ billion. Gross cash issues alone averaged about $2½ billion per year, while annual net cash issues were below $1 billion. The proportion of stock issued by financial corporations (other than investment companies, which are excluded from all these statistics) is so small that the figures can be regarded as applicable as well to nonfinancial corporations alone. More details and annual data for these issues will be found in Chapter 4, section 1.

How small these figures are becomes evident when they are compared on the one hand with the total value of outstanding stock and on the other with the relevant figures from the balance sheets and flow of funds statements of nonfinancial corporations, or when they are compared with the historical record for the period before World War II (see Table 3-20).

The net additions to the supply of corporate stock during the postwar period averaged approximately one-half of 1 percent of the value of outstanding corporate stock,[9] compared to rates of between 8 and 11 percent for other important financial instruments except U.S. government securities (Table 3-16). These ratios are very low compared to either the period between the turn of the century and World War I or that of the 1920's, during both of which the average volume of net stock issues was on the order of 2 percent of the average market value of all corporate stock outstanding.[10]

[9] The figure of 1.6 percent of Table 3-20, line I-3, is considerably higher because it does not allow for the sharp rise in stock prices over this period.

[10] Based on net issues and estimates of value of corporate stock outstanding in Goldsmith, Lipsey, and Mendelson, *Studies in the National Balance Sheet*, Vol. II, p. 72 ff.

TABLE 3-20

Growth of Supply of Main Types of Financial Instruments, 1952–68

(*percent per year*[a])

	1952–60 (1)	1961–68 (2)	1952–68 (3)
I. Corporate stock			
1. Value of stock outstanding including investment companies	9.70	12.04	10.80
2. Value of stock outstanding excluding investment companies	9.54	11.74	10.65
3. Value of cumulated issues[b] including investment companies	1.71	1.37	1.55
4. Value of cumulated issues[b] excluding investment companies	1.34	0.42	0.90
II. Claims			
1. Seven main types	6.15	7.34	6.71
2. U.S. government securities	1.14	3.12	2.06
3. State and local government securities	10.84	8.03	9.51
4. Corporate bonds	7.61	7.66	7.64
5. Home mortgages	11.82	7.46	9.74
6. Other mortgages	9.22	12.71	10.85
7. Consumer credit	10.55	9.15	9.89
8. Bank loans n.e.c.	8.41	10.45	9.37

SOURCES: *Flow of Funds Accounts 1945–1968; Federal Reserve Bulletin,* November 1969.
[a] Geometric rate of increase between beginning and end of period.
[b] Value of stock outstanding at beginning of period plus net issues during period.

In Table 3-21 annual net new issues of stock in the postwar period are compared with bond issues and other external financing by nonfinancial corporations, on the basis both of absolute figures and of ratios to gross national product, in order to eliminate the influence of the strong upward trend in national product. The table also shows the value (market value for stocks; face value for other issues) of issues outstanding throughout this period.

It is immediately evident that for most individual years as well as for the period as a whole, the sharp increase in the value of corporate stock outstanding is due predominantly to the rise in stock prices rather than to

TABLE 3-21

The Supply of Stock of Nonfinancial Corporations, 1952–68

	Issues Outstanding[a] ($billion)				Net New Issues ($billion)				Issues Outstanding[a] (percent of GNP)		Net New Issues (percent of GNP)	
	Total (1)	Stocks[b] (2)	Bonds (3)	Other Debt (4)	Total (5)	Stocks (6)	Bonds (7)	Other Debt (8)	Total (9)	Stocks (10)	Total (11)	Stocks (12)
1952	318.3	152.8	44.1	121.4	11.2	2.3	4.9	4.0	92.1	44.2	3.24	.67
1953	325.1	151.2	48.1	125.8	9.7	1.8	3.9	4.0	89.2	41.5	2.66	.49
1954	392.1	213.7	51.3	127.1	5.8	1.6	3.3	0.9	107.5	58.6	1.59	.44
1955	459.4	257.9	54.1	147.4	25.0	1.9	2.8	20.3	115.4	64.8	6.28	.48
1956	477.2	259.2	57.8	160.2	18.6	2.3	3.7	12.6	113.8	61.8	4.44	.55
1957	450.7	222.0	64.3	164.4	13.0	2.4	6.5	4.1	102.2	50.3	2.95	.54
1958	560.2	318.5	70.1	171.6	14.8	2.1	5.8	6.9	125.2	71.2	3.30	.47
1959	613.9	351.3	73.0	189.6	22.8	2.2	2.8	17.8	127.9	72.6	4.71	.45
1960	623.4	348.4	76.3	198.7	13.8	1.6	3.3	8.9	123.8	69.2	2.74	.32
1961	722.7	444.5	80.9	197.3	20.8	2.5	4.6	13.7	139.0	85.5	4.00	.48
1962	691.1	390.4	85.3	215.4	22.9	0.6	4.4	17.9	123.3	69.7	4.01	.11
1963	822.2	496.9	89.6	235.7	23.7	−0.3	4.4	19.6	139.2	84.1	4.01	−.05
1964	914.3	567.9	94.7	251.7	22.4	1.4	5.1	15.9	144.6	89.8	3.54	.22
1965	999.3	616.6	99.5	283.2	35.9	0.0	4.8	31.1	145.9	90.0	5.24	.00
1966	988.4	566.8	110.2	311.4	39.9	1.2	10.7	28.0	131.8	75.6	5.32	.16
1967	1,191.2	738.2	125.0	328.0	33.2	2.3	14.9	16.0	150.1	93.0	4.18	.29
1968	1,328.8	828.9	136.8	363.1	46.2	−0.8	11.8	35.2	153.5	95.7	5.34	−.09

SOURCES: *Flow of Funds Accounts 1945–1968.* Cols. 6–8: *Flow of Funds Accounts, 4th Quarter 1969.*

[a] Market value at end of year (Appendix I).

[b] Excluding intercorporate holdings.

net new issues. At $25 billion, the latter are dwarfed by the increase of about $700 billion in the value of stock outstanding.

Similarly, the amounts raised by nonfinancial corporations through the sale of stock are very small compared to their aggregate or total external financing. Thus, for the entire period 1952–68, gross issues of stock accounted for only 6 percent of total sources of funds of nonfinancial corporations and for about 16 percent of total external financing. Since retirements were equal to about three-fifths of gross issues, the share of net issues of corporate stock in total sources of funds of nonfinancial corporations was below 3 percent and even their contribution to external financing was as low as about 7 percent. Moreover, there was a sharp decline in both ratios between the 1950's (1952–59) and the 1960's (1960–68). During the 1950's gross issues of corporate stock accounted for about 7½ percent of total financing and 17 percent of external financing of nonfinancial corporations, while the contribution of net issues to total financing was about 5 percent and that to external financing 13 percent, retirements accounting for somewhat less than one-third of gross new issues. In the 1960's, on the other hand, gross issues contributed less than 5 percent to total financing and less than 15 percent to external financing, and the net contribution of corporate stock to financing amounted to not much over 1 percent of total sources of funds and to only about 3 percent of external financing, since retirements were equal to about four-fifths of gross new issues. These data are presented in greater detail in Chapter 4.

There is no satisfactory explanation for the extraordinarily low level of the issuance and the net increase in the supply of corporate stock in the period 1952–68, although numerous partial explanations have been advanced. Prominent among these are the tax advantages of debt financing, interest being deductible from corporate income but dividends not; the relatively high level of internal financing, particularly through rapidly increasing depreciation allowances following the liberalization in tax legislation in the early 1960's; the aversion of many managers to the dilution of stockholders' equity by issuing new stock at prices that are regarded as being below their intrinsic value (e.g., the reproduction cost of assets less liabilities), a situation particularly common during the earlier part of the period when stock prices were low; a disinclination to share control with new or outside stockholders, a factor applicable primarily to closely held and smaller corporations; and the high cost of issuing stock, particularly in small amounts.[11] An attempt to explore a new approach

[11] Securities and Exchange Commission, *Cost of Flotation of Registered Equity Issues, 1963–1965*, May 1970.

to the explanation of this remarkable phenomenon is made in sections 2, 3, and 5 of Chapter 4. One of the results of this attempt is negative; the other two are positive.

On the negative side it proved impossible to establish econometrically definite and reliable relationships between, on the one hand, gross issues, retirements, and net issues of stock by nonfinancial corporations, and on the other, economic factors such as changes in national product, in corporate capital expenditures or profits, in prices, and in yields on bonds or stocks. Given the limited resources available for this aspect of the investigation, the failure may be due to an insufficient amount of experimentation with alternative sets of data or alternative methods of econometric analysis; or to insufficient disaggregation, i.e., the limitation to totals for very large groups of corporations and the impossibility of separating straight preferred stock, convertible preferred stock, and common stock issues; or it may be due to the use of only annual data; or to peculiarities of the period 1952–68. It is entirely possible, however, that econometric explanations of corporate stock issues in this period will remain unsatisfactory until, and even after, we are in a position to compare individual corporations that have issued stock with those, otherwise similar, that have not found it necessary or advisable to resort to equity or to any external financing. An attempt in this direction, necessarily on a small scale, has been made in Chapter 4, section 5.

Of positive value is, first, the hypothesis suggested by the econometric analysis—a hypothesis which will need further and more extensive testing—that the sale of corporate stock for cash (in contradistinction to exchange issues) has in the postwar period been regarded by corporate management in most industries as the least desirable form of financing, to be resorted to only when debt financing, short or long, public or private, is impossible. This hypothesis, of course, is entirely compatible with the sudden sharp increase in cash offerings of stock by nonfinancial corporations in 1969 and 1970 when corporate profits declined and debt financing became extraordinarily difficult and expensive.

The second positive result of the econometric analysis concerns the cash retirements of stock. These were found to be positively correlated with both the total volume of internal financing and with stock prices if all three variables are measured in terms of the deviation of the annual values from their trend values for the period 1952–67. Stocks retired through exchange for debt securities of other corporations were found to be positively though weakly correlated to an index of merger activity in the American economy.

It is worth noting that the volume of issues of corporate stock has turned up sharply since the end of the period studied. Thus, the cash offerings of corporate stock in 1969 shot up to over $9 billion, 50 percent above the volume of 1968, more than 2½ times that of the 1963–67 average, and almost three times as high as the issues of any year during the postwar period before 1968. The new higher level of issues of corporate stock continued in 1970, the volume of issues reaching that of 1969.[12] Even more dramatic is the increase in net new issues (all issues less retirements) from less than $1 billion a year in 1963–67—and a negative figure of about $1 billion in 1968—to $4.3 billion in 1969 and an expected fully $5 billion in 1970.[13] These figures nevertheless are equal to only about three-quarters of 1 percent a year of the market value of all corporate stock outstanding, a ratio which is still well below the 2 percent level prevailing in the first decade of the century and during the 1920's.

It remains to be seen whether this sudden upward surge in the issuance of corporate stock in 1969 and 1970 is a temporary phenomenon, associated with the credit stringency and the extremely high cost of debt financing, or whether it presages a sharp change in the methods of financing nonfinancial corporations and in the share of corporate stock in the total issuance of financial instruments.

While it is thus not yet possible to provide a satisfactory explanation of the basic factors responsible for the low volume of new issues of corporate stock during the postwar period and to allocate the responsibility among them, it may be worthwhile to put the new issues of corporate stock of nonfinancial corporations into a broader framework, following the suggestion made in Chapter 1. This approach treats the ratio of net issues of stock of nonfinancial corporations to gross national product—a ratio which may be regarded as possibly the least objectionable simple measure of the importance of these issues in the economy—as being the result of four relationships: the share of the issues of corporate stock in total external financing of nonfinancial corporations; the relationship of total external financing to the capital expenditures of nonfinancial corporations—a relationship which assumes that capital expenditures are one of the important factors determining the volume of external financing; the share of nonfinancial corporations in national gross capital formation; and finally the well-known national capital formation ratio, i.e., the proportion of total gross capital formation to gross national product. Of course,

[12] Bankers Trust Company, *The Investment Outlook for 1970*, New York, 1969, Table 11.
[13] Actual issues during the first half of 1970 were running at an annual rate of $5½ billion. (*Flow of Funds . . . 2nd Quarter 1970.*)

such a breakdown is useful only if some of the ratios are relatively stable or if they follow a reasonably simple pattern so that movements of the ratio in which we are interested—here the proportion of stock issues of nonfinancial corporations to national product—depend chiefly on the movements of one or two other factors. Annual data on these ratios are given in the upper part of Table 3-22; the lower part shows the average values for business cycles that can be distinguished in the 1952–68 period.[14]

We find that during the period from 1952 through 1968 the national gross capital formation ratio averaged 28.1 percent, while the share of nonfinancial corporations in national capital formation averaged 28.0 percent, so that the average ratio of gross capital formation of nonfinancial corporations to gross national product was 7.9 percent. Since the share of external financing in gross capital formation of nonfinancial corporations averaged 50.7 percent, and the share of net issues of corporate stock in total external financing of nonfinancial corporations amounted, on the average, to 10.2 percent, the ratio of net issues of stock of nonfinancial corporations to gross national product averaged 0.4 percent.

Two of the four ratios that determine the proportion of stock issues by nonfinancial corporations to gross national product, namely, the national capital formation ratio and the relationship between external financing of nonfinancial corporations and their capital expenditures (columns 1 and 4 in Table 3-22), show no trend over the period, as can be seen from the stability of the cycle averages. On the other hand, a slight upward trend appears in the share of nonfinancial corporations in national capital formation, the proportion rising from 26 percent for the first cycle, to 33 percent in 1965–68, though it is doubtful whether this trend will continue. If the other three ratios are stable, such a trend implies an increase in the proportion of stock issues of nonfinancial corporations to national product. The sharp decline observed in the ratio of nonfinancial corporations' stock issues to national product (Table 3-22, column 7)—from 0.50 percent in the first cycle to 0.09 percent in 1965–68 or 0.15 percent in 1960–68—is due entirely to the fall in the share of corporate stock in the external financing of nonfinancial corporations (Table 3-22, column 6) from 17 percent in the first cycle to only 2 percent in 1965–68. Thus, the decline in the ratio of nonfinancial corporations' stock issues to

[14] The dating of business cycles follows the annual chronology of the National Bureau of Economic Research. The long cycle starting in 1960 and probably ending in 1969 has been split in two at the end of 1964 because of the very different character of the capital market, in general, and the market for corporate stock, in particular, in the two periods.

TABLE 3-22

The Determinants of the Ratio of Corporate Share Issues to Gross National Product, 1952–68

	$\frac{k_n}{y}$ (1)	$\frac{k_c}{k_n}$ (2)	$\frac{k_c}{y}$ (3)	$\frac{e}{k_c}$ (4)	$\frac{e}{y}$ (5)	$\frac{a}{e}$ (6)	$\frac{a}{y}$ (7)
				Annual Data			
1952	.272	.260	.071	.425	.030	.221	.0067
1953	.267	.253	.067	.337	.023	.217	.0049
1954	.268	.221	.059	.268	.016	.276	.0044
1955	.303	.262	.079	.794	.063	.076	.0048
1956	.300	.286	.086	.515	.044	.124	.0055
1957	.291	.270	.079	.368	.023	.188	.0054
1958	.261	.234	.061	.538	.033	.143	.0047
1959	.281	.272	.076	.623	.047	.096	.0046
1960	.278	.279	.078	.351	.027	.117	.0032
1961	.267	.264	.070	.572	.040	.119	.0048
1962	.278	.283	.079	.525	.041	.026	.0011
1963	.282	.274	.077	.507	.039	−.013	−.0005
1964	.286	.287	.082	.408	.033	.066	.0022
1965	.297	.309	.092	.580	.053	.000	.0000
1966	.295	.348	.103	.510	.053	.030	.0016
1967	.277	.330	.091	.455	.041	.070	.0029
1968	.277	.321	.089	.615	.055	−.017	−.0009
				Cycle Averages[a]			
1953–57	.288	.258	.075	.483	.037	.170	.0050
1957–60	.276	.260	.072	.507	.036	.131	.0045
1960–68	.283	.299	.085	.505	.043	.044	.0017
1960–65	.280	.280	.079	.496	.039	.051	.0018
1965–68	.286	.331	.095	.521	.049	.030	.0013
				Period Average			
1952–68	.281	.280	.079	.494	.039	.102	.0033

y = gross national product;
k_n = national gross capital formation;
k_c = corporate gross national formation;
e = total issues of nonfinancial corporations;
a = stock issues of nonfinancial corporations.
SOURCE: Basic data from *Flow of Funds Accounts 1945–1968.*
[a] First and last years of cycle given half weight of other years in cycle.

national product is due to the change, permanent or otherwise, in the method of external financing of corporations, not to changes in the national capital formation ratio, the share of nonfinancial corporations in national capital formation, or the relationship between external financing and capital expenditures of nonfinancial corporations.

On an annual basis the national capital formation ratio, the share of nonfinancial corporations in national capital formation, and the relationship between nonfinancial corporations' capital expenditures and their external financing were all high late in the upswing (1955–56, 1959, 1965–66). As a result the ratio of total external financing by nonfinancial corporations to national product (Table 3-22, column 5) was then at a high level: 5.4 percent in 1955–56, 5.3 percent in 1965–66, and 4.7 percent in 1959 in the weak upswing of 1957–60. The share of corporate stock in the total external financing of nonfinancial corporations was highest in 1954, 1957, 1961 and 1967, i.e., in the recession or early in the upswing. As a result, the movements of the ratio of nonfinancial corporations' stock issues to national product showed little relationship to the cycle either during the 1950's or the 1960's, although during the second period they were at a much lower average (4.9 percent for the period 1952–61 against 0.9 percent for 1962–68).

5. THE POSITION OF FINANCIAL INSTITUTIONS IN HOLDINGS OF AND TRANSACTIONS IN CORPORATE STOCK

Since the stock portfolios of the main types of financial institutions will be discussed in Chapter 5, section 3, and statistics of the aggregate holdings and net purchases and sales of corporate stock by about twenty groups of financial institutions will be presented in Appendix I, it may suffice here to summarize the most important figures, both in the stock and the flow dimensions.

The basic figures for flows—the annual net purchases of all corporate stock by the main types of financial institutions for which primary data are available—are shown in Table 3-23. The distribution of the annual totals among main types of institutions is shown in Table 3-24. Table 3-25, which presents the ratio of annual net purchases or sales by each type of institution to the value of its stockholdings at the beginning of the year, indicates how rapidly the portfolios have been expanded. The annual net purchases of corporate stock are then related to all purchases of financial assets by these institutions to yield a ratio which indicates the proportion of the year's acquisition of financial assets that was allocated to corporate stock (Table 3-26); to all new net issues of corporate stock (Table 3-27);

TABLE 3-23

Net Purchases or Sales of Corporate Stock by Financial Institutions, 1952–69

(*$billion*)

	Total (1)	Mutual Savings Banks (2)	Life Insurance Companies (3)	Pension Funds: Private (4)	Pension Funds: State and Local Governments (5)	Other Insurance Companies (6)	Open-End Investment Companies (7)
				Annual Data			
1952	1.42	.11	0.16	0.48	0.02	0.18	0.47
1953	1.51	.10	0.09	0.55	0.02	0.19	0.56
1954	1.60	.14	0.27	0.71	0.02	0.16	0.30
1955	1.59	.08	0.07	0.74	0.03	0.16	0.51
1956	1.72	.05	−0.00	0.94	0.03	0.14	0.56
1957	2.24	.06	0.04	1.14	0.05	0.13	0.82
1958	2.74	.10	0.08	1.38	0.06	0.13	0.99
1959	3.53	−.05	0.19	1.74	0.08	0.27	1.30
1960	3.69	.02	0.35	1.95	0.09	0.26	1.02
1961	4.34	.07	0.47	2.26	0.15	0.26	1.13
1962	4.14	.15	0.43	2.20	0.20	0.25	0.91
1963	3.67	.12	0.25	2.17	0.21	0.16	0.76
1964	4.36	.10	0.55	2.21	0.27	0.10	1.13
1965	5.68	.17	0.71	3.12	0.35	0.09	1.24
1966	6.21	.04	0.27	3.68	0.49	0.39	1.34
1967	9.59	.22	1.06	4.99	0.67	0.59	2.06
1968	10.39	.25	1.43	4.71	1.28	1.07	1.65
1969	12.60	.30	1.60	4.90	1.80	1.50	2.50
				Cycle Averages[a]			
1953-57	1.70	.09	0.10	0.81	0.03	0.16	0.52
1957–60	3.08	.03	0.16	1.56	0.07	0.20	1.07
1960–69	6.28	.14	0.68	3.20	0.51	0.42	1.33
1960–65	4.24	.11	0.45	2.28	0.21	0.19	1.01
1965–69	8.83	.19	0.98	4.35	0.88	0.71	1.73
				Period Average			
1952–69	4.50	.11	0.45	2.22	0.32	0.34	1.07

NOTE: Sales are indicated by a minus sign.
SOURCE: Basic data from Appendix I.
[a] First and last years of cycle given half weight of other years in cycle.

TABLE 3-24

Distribution of Net Purchases or Sales of Corporate Stock by Financial Institutions, 1952–69

(*percent*)

	Total (1)	Mutual Savings Banks (2)	Life Insurance Companies (3)	Pension Funds: Private (4)	Pension Funds: State and Local Governments (5)	Other Insurance Companies (6)	Open-End Investment Companies (7)
				Annual Data			
1952	100.0	7.7	11.3	33.8	1.4	12.7	33.1
1953	100.0	6.6	6.0	36.4	1.3	12.6	37.1
1954	100.0	8.8	16.9	44.4	1.3	10.0	18.8
1955	100.0	5.0	4.4	46.5	1.9	10.1	32.1
1956	100.0	2.9	0.0	54.6	1.7	8.1	32.6
1957	100.0	2.7	1.8	50.9	2.2	5.8	36.6
1958	100.0	3.6	2.9	50.4	2.2	4.7	36.1
1959	100.0	−1.4	5.4	49.3	2.2	7.6	36.8
1960	100.0	0.5	9.5	52.8	2.4	7.0	27.6
1961	100.0	1.6	10.8	52.1	3.5	6.0	26.0
1962	100.0	3.6	10.4	53.1	4.8	6.0	22.0
1963	100.0	3.3	6.8	59.1	5.7	4.4	20.7
1964	100.0	2.3	12.6	50.7	6.2	2.3	25.9
1965	100.0	3.0	12.5	54.9	6.2	1.6	21.8
1966	100.0	0.6	4.3	59.3	7.9	6.3	21.6
1967	100.0	2.3	11.1	52.0	7.0	6.2	21.5
1968	100.0	2.4	13.8	45.3	12.3	10.3	15.9
1969	100.0	2.4	12.7	38.9	14.3	11.9	19.8
				Cycle Averages[a]			
1953–57	100.0	5.4	6.3	47.3	1.7	9.4	30.1
1957–60	100.0	1.3	4.7	50.5	2.2	6.2	35.0
1960–69	100.0	2.3	10.4	52.5	6.9	5.8	22.1
1960–65	100.0	2.5	10.3	53.8	4.9	4.6	23.9
1965–69	100.0	2.0	10.5	50.9	9.4	7.4	20.0
				Period Average			
1952–69	100.0	3.2	8.5	49.1	4.7	7.4	27.0

NOTE: Sales are indicated by a minus sign.
SOURCE: Basic data from Appendix I.
[a] First and last years of cycle given half weight of other years in cycle.

TABLE 3-25

Growth of Stock Portfolio of Financial Institutions, 1952–69

(percent)

	Total (1)	Mutual Savings Banks (2)	Life Insurance Companies (3)	Pension Funds: Private (4)	Pension Funds: State and Local Governments (5)	Other Insurance Companies (6)	Open-End Investment Companies (7)
				Annual Data			
1952	13.4	55.0	7.3	34.3	—	4.6	16.2
1953	12.4	33.3	3.8	30.6	20.0	4.4	17.0
1954	11.9	35.0	10.4	29.6	20.0	3.6	8.6
1955	8.6	13.3	2.1	23.1	30.0	2.7	9.4
1956	7.1	7.1	—	15.4	30.0	2.0	8.1
1957	8.4	8.6	1.1	16.0	25.0	1.8	10.4
1958	10.5	12.5	2.4	18.4	30.0	1.9	13.4
1959	9.5	−5.6	4.6	15.0	26.7	3.2	11.1
1960	8.5	2.5	7.6	13.4	30.0	2.9	7.3
1961	9.3	8.8	9.4	13.7	37.5	2.8	7.6
1962	6.6	16.7	6.8	9.6	33.3	2.2	4.5
1963	6.2	12.0	4.0	9.9	26.3	1.4	4.2
1964	6.0	8.3	7.7	8.0	27.0	0.8	5.1
1965	6.9	13.1	9.0	9.3	26.9	0.6	5.2
1966	6.3	2.9	3.0	9.3	30.6	2.5	4.3
1967	10.3	14.7	12.0	13.0	31.9	4.3	7.1
1968	8.5	14.7	12.1	9.5	45.7	6.0	4.2
1969	8.8	15.8	12.1	8.2	43.9	8.3	5.4
				Cycle Averages[a]			
1953–57	9.5	19.1	3.8	22.9	25.6	2.9	10.0
1957–60	9.5	4.2	3.8	16.0	28.1	2.5	11.1
1960–69	7.6	11.2	8.2	10.3	32.9	2.9	5.4
1960–65	7.2	10.7	7.2	10.5	30.5	1.8	5.5
1965–69	8.3	11.7	9.4	10.1	35.9	4.3	5.2
				Period Average			
1952–69	8.8	14.9	6.4	15.9	28.6	3.1	8.3

SOURCE: Basic data from Appendix I.

[a] First and last years of cycle given half weight of other years in cycle.

TABLE 3-26

Ratio of Net Acquisition of Corporate Stock by Financial Institutions to Their Total Acquisition of Financial Assets, 1952–68

(*percent*)

		Insurance Organizations				
			Pension Funds			
	Mutual Savings Banks (1)	Life Insurance Companies (2)	Private (3)	State and Local Governments (4)	Other Insurance Companies (5)	Open-End Investment Companies (6)
			Annual Data			
1952	5.6	4.3	27.8	0.0	15.4	80.0
1953	5.3	2.0	25.0	0.0	14.3	100.0
1954	4.5	5.9	33.3	0.0	18.2	75.0
1955	5.0	1.8	30.4	0.0	20.0	71.4
1956	5.0	0.0	33.3	0.0	16.7	75.0
1957	5.6	0.0	35.5	6.3	10.0	88.9
1958	3.8	1.9	43.8	6.7	8.3	83.3
1959	0.0	3.6	45.9	5.0	17.6	71.4
1960	0.0	7.0	47.5	4.3	25.0	72.7
1961	4.3	8.2	57.5	8.0	23.1	71.4
1962	3.0	5.9	52.4	8.0	10.5	78.6
1963	2.8	2.9	48.9	8.3	18.2	75.0
1964	2.2	6.4	44.9	10.7	10.0	63.6
1965	5.0	8.0	55.4	12.1	8.3	60.0
1966	0.0	3.6	60.7	12.5	19.0	40.0
1967	3.7	11.7	74.6	15.2	26.1	136.4
1968	6.5	15.1	73.4	30.2	32.4	60.0
			Cycle Averages[a]			
1953–57	5.0	2.2	31.8	0.8	16.8	79.0
1957–60	2.2	3.0	43.7	5.7	14.5	78.5
1960–68	3.0	7.2	56.9	11.5	18.0	73.9
1960–65	3.0	6.2	51.0	8.6	15.7	71.0
1965–68	3.2	9.0	66.6	16.3	21.8	78.8
			Period Average			
1952–68	3.7	5.2	46.5	7.5	17.2	76.6

SOURCE: Basic data from Appendix I.

[a] First and last years of cycle given half weight of other years in cycle.

TABLE 3-27

Ratio of Net Acquisitions of Corporate Stock by Financial Institutions to All Net Issues of Corporate Stock, 1952–68

(*percent*)

	Total (1)	Mutual Savings Banks (2)	Life Insurance Companies (3)	Pension Funds: Private (4)	Pension Funds: State and Local Governments (5)	Other Insurance Companies (6)	Open-End Investment Companies (7)
				Annual Data			
1952	45.1	3.5	5.1	15.2	0.6	5.7	14.9
1953	62.9	4.2	3.8	22.9	0.8	7.9	23.3
1954	60.4	5.3	10.2	26.8	0.8	6.0	11.3
1955	53.0	2.7	2.3	24.7	1.0	5.3	17.0
1956	44.2	1.3	0.0	24.2	0.8	3.6	14.4
1957	56.1	1.5	1.0	28.6	1.3	3.3	20.6
1958	63.9	2.3	1.9	32.2	1.4	3.0	23.1
1959	83.4	−1.2	4.4	40.6	1.9	6.3	30.3
1960	101.6	0.6	9.6	53.7	2.5	7.2	28.1
1961	70.1	1.1	7.6	36.5	2.4	4.2	18.3
1962	130.6	4.7	13.6	69.4	6.3	7.9	28.7
1963	269.9	8.8	18.4	159.6	15.4	11.8	55.9
1964	116.6	2.7	14.7	59.1	7.2	2.7	30.2
1965	171.6	5.1	21.5	94.3	10.6	2.7	37.5
1966	111.5	0.7	4.8	66.1	8.8	7.0	24.1
1967	137.4	3.2	15.2	71.5	9.6	8.5	29.5
1968	197.2	4.7	27.1	89.4	24.3	20.3	31.3
				Cycle Averages[a]			
1953–57	54.3	3.1	3.7	25.4	0.9	5.1	16.2
1957–60	75.4	0.7	3.9	38.0	1.7	4.9	25.9
1960–68	114.7	3.6	14.3	78.5	9.2	7.3	31.7
1960–65	144.8	4.0	14.0	79.7	7.6	6.3	33.2
1965–68	144.5	2.9	14.8	76.5	12.0	9.0	29.3
				Period Average			
1952–68	104.5	3.0	9.5	53.8	5.6	6.7	25.8

SOURCE: Basic data from Appendix I.

[a] First and last years of cycle given half weight of other years in cycle.

TABLE 3-28

Ratio of Net Acquisitions of Corporate Stock by Financial Institutions to Net Issues Excluding Intercorporate and Investment Company Issues, 1952–68

(*percent*)

				Pension Funds			
	Total (1)	Mutual Savings Banks (2)	Life Insurance Companies (3)	Private (4)	State and Local Governments (5)	Other Insurance Companies (6)	Open-End Investment Companies (7)
1952	54	4	6	19	1	7	17
1953	80	5	5	29	1	10	30
1954	78	7	13	35	1	8	15
1955	77	4	3	36	2	8	25
1956	65	2	0	35	1	5	21
1957	82	2	2	42	2	5	30
1958	111	4	3	56	2	5	40
1959	137	−2	7	68	3	11	51
1960	207	1	20	110	5	15	57
1961	146	2	16	76	5	9	38
1962	524	19	54	279	25	32	115
1963	−1,184	−39	−81	−700	−68	−52	−245
1964	357	8	45	181	22	8	93
1965	−1,721	−52	−215	−946	−106	−27	−376
1966	437	3	19	259	35	28	94
1967	415	10	46	216	29	26	89
1968	−1,423	−34	−196	−645	−175	−147	−226

Source: Basic data from Appendix I.

and finally to the total value of all corporate stock outstanding, excluding intercorporate holdings and open-end investment company stock (Table 3-28). These ratios give an idea of the influence of net purchases and sales by financial institutions in the market for corporate stock.[15]

Similar information is provided on the stock dimensions of the holdings, at market value, of corporate stock of financial institutions. Thus, Table 3-29 shows the absolute values of the holdings at each year-end from 1951 through 1968; Table 3-30 expresses these figures as percentages of the holdings of all financial institutions, thus showing changes in the distribution of these holdings within the financial institutions sector; and Table 3-31 relates the holdings of corporate stock by the main types of financial institutions to total outstandings, again excluding intercorporate holdings and open-end investment company stock from the outstandings.

Since net purchase and sales balances of the different groups of financial institutions are substantially smaller than their gross purchases and sales, it is also necessary to appraise the intensity of stock trading of the different groups, i.e., the turnover ratio of their stock portfolios (Table 3-32), and to look at their share in the trading on the single most important market for stocks in the United States, the New York Stock Exchange (Table 3-33).

From this material the following main conclusions emerge regarding the role of financial institutions in the aggregate, and that of their main types, in the market for corporate stock.

1. The value of the corporate stock held by all financial institutions increased from about $35 billion at the end of 1951 to $250 billion in 1968 or at an average rate of slightly more than 12 percent a year.[16] The average rate of growth was more rapid in the 1950's (about 15 percent a year) than in the 1960's (about 11 percent a year).

2. Most of the increase in the value of stockholdings—about two-thirds to judge by the figures of the groups of institutions for which information on net purchases is available—reflected the rising level of stock prices

[15] All tables omit the groups of financial institutions without or with only small (in absolute amounts) holdings of corporate stock: commercial banks, savings and loan associations, credit unions, federal lending institutions, closed-end investment companies, brokers and dealers, mortgage companies, finance companies, and fraternal insurance organizations. Their omission does not affect the discussion, as their total stockholdings amount to only a small fraction of the group included in the tables (about 5 percent in 1968 although over 10 percent in 1954). The tables omit personal trust funds because no reliable information is available on them. However, rough estimates of the net purchases by personal trust funds, closed-end investment companies, and brokers and dealers are occasionally used in the text. The tables on holdings of stocks (Tables 3-29 to 3-31) include the first two of these three groups.

[16] By mid-1970 the figures were approximately $200 billion and 10 percent a year.

TABLE 3-29

Holdings of Corporate Stock by Financial Institutions, 1951–68

(*$billion*)

		Insurance Organizations							
			Pension Funds						
	Total (1)	Life Insurance Companies (2)	Private (3)	State and Local Governments (4)	Other Insurance Companies (5)	Open-End Investment Companies (6)	Other Investment Companies (7)	Mutual Savings Banks (8)	Personal Trust Funds (9)
1951	33.2	2.2	1.4	0.0	3.9	3.5	3.0	0.2	19.0
1952	36.3	2.4	1.8	0.1	4.3	3.4	3.2	0.3	20.8
1953	37.2	2.6	2.4	0.1	4.5	3.6	3.3	0.4	20.3
1954	51.1	3.3	3.2	0.1	5.9	5.5	4.7	0.6	27.8
1955	63.4	3.6	6.1	0.1	6.9	7.1	5.7	0.7	33.2
1956	67.8	3.5	7.1	0.2	7.2	8.0	5.2	0.7	35.9
1957	63.3	3.4	7.5	0.2	6.7	7.5	4.8	0.8	32.4
1958	85.7	4.1	11.6	0.3	8.4	11.8	5.6	0.9	43.0
1959	97.1	4.6	14.5	0.3	9.1	14.4	5.9	0.8	47.5

1960	102.0	5.0	16.5	0.4	9.4	15.5	5.9	0.8	48.5
1961	131.8	6.3	22.9	0.6	11.8	21.3	6.6	0.9	61.4
1962	124.8	6.3	21.9	0.8	11.1	19.6	6.5	1.0	57.6
1963	150.2	7.1	27.7	1.0	13.0	23.7	7.6	1.2	68.9
1964	164.8	7.9	33.5	1.3	14.7	25.8	7.8	1.3	72.5
1965	186.8	9.1	39.7	1.6	15.3	33.3	6.9	1.4	79.5
1966	178.3	8.8	38.5	2.1	13.8	31.1	6.5	1.5	76.0
1967	221.9	11.8	49.5	2.8	17.7	43.1	8.7	1.7	86.6
1968	252.7	13.2	59.6	4.1	18.1	50.5	9.4	1.9	95.9

SOURCES: *Flow of Funds Accounts* and Appendix I (for columns 7 and 9).

TABLE 3-30

Distribution of Holdings of Corporate Stock by Financial Institutions, 1951–68

(*percent*)

		Insurance Organizations							
			Pension Funds						
	Total (1)	Life Insurance Companies (2)	Private (3)	State and Local Governments (4)	Other Insurance Companies (5)	Open-End Investment Companies (6)	Other Investment Companies (7)	Mutual Savings Banks (8)	Personal Trust Funds (9)
1951	100.0	6.6	4.2	0.0	11.7	10.5	9.0	0.6	57.2
1952	100.0	6.6	5.0	0.3	11.8	9.4	8.8	0.8	57.3
1953	100.0	7.0	6.5	0.3	12.1	9.7	8.9	1.1	54.6
1954	100.0	6.5	6.3	0.2	11.5	10.8	9.2	1.2	54.4
1955	100.0	5.7	9.6	0.2	10.9	11.2	9.0	1.1	52.4
1956	100.0	5.2	10.5	0.3	10.6	11.8	7.7	1.0	52.9
1957	100.0	5.4	11.8	0.3	10.6	11.8	7.6	1.3	51.2
1958	100.0	4.8	13.5	0.4	9.8	13.8	6.5	1.1	50.2
1959	100.0	4.7	14.9	0.3	9.4	14.9	6.1	0.8	48.9

1960	100.0	4.9	16.2	0.4	9.2	15.2	5.8	0.8	47.5
1961	100.0	4.8	17.4	0.5	9.0	16.2	5.0	0.7	46.6
1962	100.0	5.0	17.5	0.6	8.9	15.7	5.2	0.8	46.2
1963	100.0	4.7	18.4	0.7	8.7	15.8	5.1	0.8	45.9
1964	100.0	4.8	20.3	0.8	8.9	15.7	4.7	0.8	44.0
1965	100.0	4.9	21.3	0.9	8.2	17.8	3.7	0.7	42.6
1966	100.0	4.9	21.6	1.2	7.7	17.4	3.6	0.8	42.6
1967	100.0	5.3	22.3	1.3	8.0	19.4	3.9	0.8	39.0
1968	100.0	5.2	23.6	1.6	7.2	20.0	3.7	0.8	38.0

SOURCE: Table 3-29.

TABLE 3-31

Ratio of Holdings of Corporate Stock[a] by Financial Institutions to Total Corporate Stock Outstanding, 1951–68

(*percent*)

		Insurance Organizations							
			Pension Funds						
	Total (1)	Life Insurance Companies (2)	Private (3)	State and Local Governments (4)	Other Insurance Companies (5)	Open-End Investment Companies (6)	Other Investment Companies (7)	Mutual Savings Banks (8)	Personal Trust Funds (9)
					Annual Data				
1951	18.9	1.3	0.8	.0	2.3	1.7	1.3	.1	11.4
1952	19.9	1.3	1.0	.0	2.4	1.9	1.7	.2	11.4
1953	20.6	1.4	1.3	.0	2.5	2.0	1.8	.2	11.4
1954	20.6	1.3	1.3	.0	2.4	2.2	1.9	.2	11.3
1955	21.6	1.2	2.1	.0	2.4	2.4	1.9	.2	11.4
1956	23.0	1.2	2.4	.0	2.5	2.7	1.8	.2	12.2
1957	23.8	1.3	2.8	.1	2.5	2.8	1.8	.3	12.2
1958	22.7	1.1	3.1	.1	2.2	3.1	1.5	.2	11.4
1959	23.1	1.1	3.4	.1	2.2	3.4	1.4	.2	11.3

1960	24.2	1.2	3.9	.1	2.2	3.7	1.4	.2	11.5
1961	23.6	1.1	4.1	.1	2.1	3.8	1.2	.2	11.0
1962	26.2	1.3	4.6	.2	2.3	4.1	1.4	.2	12.1
1963	24.9	1.2	4.6	.2	2.1	3.9	1.3	.2	11.4
1964	24.2	1.2	4.9	.2	2.2	3.8	1.1	.2	10.6
1965	24.4	1.2	5.2	.2	2.0	4.3	0.9	.2	10.4
1966	25.6	1.3	5.5	.3	2.0	4.5	0.9	.2	10.9
1967	25.0	1.3	5.6	.3	2.0	4.8	1.0	.2	9.7
1968	24.0	1.3	5.6	.4	1.7	4.8	0.9	.2	9.1
					Cycle Averages[b]				
1953–57	21.9	1.3	2.0	.0	2.5	2.4	1.9	.2	11.7
1957–60	23.3	1.2	3.3	.1	2.3	3.3	1.5	.2	11.5
1960–68	24.8	1.2	4.9	.2	2.1	4.2	1.1	.2	10.8
1960–65	24.6	1.2	4.6	.2	2.2	3.9	1.2	.2	11.2
1965–68	24.9	1.3	5.5	.3	2.2	4.6	0.9	.2	10.1
					Period Average				
1952–68	23.1	1.2	3.5	.1	2.2	3.3	1.4	.2	11.2

SOURCES: Tables 3-23 and 3-29.
[a] Excluding investment-company shares.
[b] First and last years of cycle given half weight of other years in cycle.

TABLE 3-32

Common Stock Activity Rates, 1955–69

(*percent*)

	Noninsured Private Pension Funds	Open-End Investment Companies	Life Insurance Companies	Other Insurance Companies	New York Stock Exchange
1955	11.8	15.9	11.8	n.a.	17.0
1956	11.8	18.6	11.5	n.a.	14.0
1957	11.9	18.8	12.0	n.a.	13.0
1958	12.0	21.7	13.0	n.a.	14.0
1959	11.7	19.8	10.9	n.a.	15.0
1960	11.1	17.6	10.1	n.a.	12.4
1961	12.1	20.0	13.5	n.a.	15.2
1962	9.7	17.3	9.8	7.1	12.0
1963	11.0	18.6	11.2	7.8	13.1
1964	10.8	18.7	11.9	8.0	13.2
1965	11.3	21.2	13.6	8.2	14.5
1966	12.7	33.5	15.8	8.3	19.7
1967	18.2	42.3	18.5	9.9	25.8
1968	18.9	46.6	26.2	15.7	29.0
1969	22.3	49.8	28.1	26.1	32.7

n.a. = not available.
Source: U.S. Securities and Exchange Commission, *Statistical Bulletin*, April 1970, p. 25.

over the period. Variations of stock prices have hardly any noticeable effect on the changes in assets of banks and thrift institutions but account in some years for a considerable proportion of the total variation in assets of institutions such as pension funds, non-life-insurance companies, investment companies, and personal trust funds.

3. The decisive increases occurred in two sectors, private pension funds, whose holdings rose dramatically from $1½ billion to $60 billion; and open-end investment companies, whose holdings shot up from $3 billion to $46 billion. In absolute amount the increase in the value of the holdings administered by personal trust funds was also very large—they are

TABLE 3-33

Distribution of Stock Trading on New York Stock Exchange

(total number of shares = 100)

			Institutions and Intermediaries				
Date	Public Individuals (1)	NYSE Members (2)	Total (3)	Commercial Banks[a] (4)	Brokers and Dealers[b] (5)	Investment Companies[c] (6)	Other (7)
Sept. 1952	57.0	18.4	24.6	7.1	4.6	3.9	9.0
March 1953	61.4	19.3	22.3	6.2	4.7	2.4	9.0
March 1954	56.4	20.1	23.5	7.5	4.3	2.7	9.0
Dec. 1954	62.3	20.2	17.5	5.3	3.9	1.4	6.9
June 1955	59.2	21.3	19.5	6.5	3.9	1.7	7.4
March 1956	58.9	21.0	20.1	6.8	3.7	2.2	7.4
Oct. 1957	54.3	22.4	23.3	8.8	3.4	2.0	9.2
Sept. 1958	55.8	21.3	22.9	5.7	3.4	13.8	
June 1959	53.5	23.7	22.8	9.2	3.2	10.4	
Sept. 1960	52.6	23.1	23.3	9.4	2.6	4.0	7.3
Sept. 1961	51.4	22.4	26.2				
May 1962	56.9	24.4	18.7				
Oct. 1963	53.4	22.7	23.9	9.0	2.6	4.8	7.5
March 1965	48.5	20.1	31.4				
Oct. 1966	43.2	24.3	32.5	12.6	2.0	8.4	9.6
Dec. 1969	33.4	24.2	42.2	15.9	3.1	12.3[d]	10.9[e]

SOURCES:
Cols. 1–3. 1952–62: NYSE, *Public Participation in the Stock Market*, May 1962.
1966, 1969: NYSE, *Public Transactions Study*, 1969.
Cols. 4–7. 1952–60: NYSE, *The Institutional Investor and the Stock Market*, 1960.
1963: NYSE, *Institutional Activity, Week of October 24, 1966*, 1966.
1966–69: NYSE, *Public Transactions Study*, 1969.

[a] Including trust departments.
[b] Excluding members of NYSE.
[c] Open-end companies only until 1960.
[d] Includes hedge funds (1.7).
[e] Includes insurance companies (2.1), nonbank trusts or estates (1.5), noninsured pension funds (2.1), and other (5.2).

estimated to have risen from slightly less than $20 billion to nearly $100 billion—but proportionately the rise was much smaller than for the other two leading groups and most of it, possibly more than four-fifths, was due to an increase in stock prices.

4. As a result radical changes occurred in the distribution of stockholdings of financial institutions among their main groupings. The share of private pension funds rose from 5 to 25 percent while that of open-end investment companies advanced from 10 to nearly 20 percent. The sharpest decline occurred in the holdings administered by personal trust funds, whose share fell from almost two-thirds of the total in 1951 to only two-fifths in 1968. The share of non-life-insurance companies also declined substantially, from 13 to 8 percent, and a smaller reduction occurred in the share of life insurance companies. (This would disappear if the comparison were limited to common stock.)

5. From the point of view of the capital market the share of financial institutions in the total value of corporate stock outstanding (excluding intercorporate holdings and open-end investment companies and disregarding the small holdings of foreign stocks by financial institutions) is more important than the dollar value of holdings. This share rose from 18 to 24 percent, the advance being about equally divided among the 1950's and the 1960's. While this is a substantial rise it does not imply a radical change in the distribution of ownership of American corporations. However, since the share of corporate stock administered by personal trust funds declined slightly, sharp increases occurred in the share of the holdings of the other types of financial institutions. For all of these together, the share increased from 6 percent in 1951 to 14 percent in 1968. Here again, the increase was about equally large in percentage points in the 1950's and in the 1960's, but proportionately it was more pronounced during the first half of the period. Particularly impressive increases in the share in total corporate stock outstanding were registered by private pension funds with an advance from less than 1 percent to 6 percent and by open-end investment companies, whose share advanced from less than 2 to almost 5 percent.

6. The influence of financial institutions in the market for corporate stock, is however, more adequately reflected in the flow dimension. The net acquisition of common stock by the six groups of financial institutions for which information on net purchases or sales is available amounted to over $80 billion in the period 1952–69 (Table 3-23). Furthermore, over two-thirds of them were made during the second half of the period (1961–69) with peaks of more than $10 billion each in 1968 and 1969. Net

purchases by these financial institutions did not fall below $3 billion in any year after 1958.

7. By far the largest purchases were made by private pension funds ($40 billion) and by open-end investment companies ($16 billion). By comparison the net purchases of non-life-insurance companies, life insurance companies, and personal trust funds administered by banks and trust companies were considerably smaller. What may be equally important, they were much more irregular although by no means negligible in absolute amounts.

8. Since no direct information is available on the net purchases and sales of these other important groups of institutional holders of corporate stock —bank trust departments, closed-end investment companies, and brokers and dealers—the results of their transactions must be inferred from the movements of the known or estimated values of their stock portfolios and from the movements of a stock price index assumed to reflect the structure of their portfolios. This somewhat hazardous procedure suggests that for the entire period 1953–68 personal trust departments bought on balance approximately $15 billion of corporate stock, such net purchases being concentrated in the last three years of the period. This would add only about one-fifth to the known net purchases of the six groups for the period as a whole, but would increase net purchases in 1966–68 by more than one-third.

The inferred net purchases of the other two groups—closed-end investment companies and brokers and dealers—were too small to affect significantly the figures of Table 3-23, either for the period as a whole or for subperiods of substantial length.

9. Because of the low volume of new issues of corporate stock during this period, the net purchases of financial institutions have been in excess of the total increase in the supply of corporate stock in every year since 1958. For the entire period, the known net purchases by financial institutions of $90 billion were three times as large as total new issues. The discrepancy, moreover, showed a clearly increasing trend over the period. While from 1952 through 1960 the known net purchases of corporate stock by financial institutions were only about equal to total net issues of all corporate stock (excluding investment company stock), from 1961 through 1969 net issues of about $10 billion were dwarfed by the known net purchases of financial institutions, which amounted to more than $65 billion (see Table 3-34). As a result (since foreign investors also had a small net purchase balance) large amounts of corporate stock were transferred from domestic individual ownership to that of financial

TABLE 3-34

Share of Valuation Changes in Growth of Assets of Financial Institutions,[a] 1952–68

(*$billion*)

	Increase in: Assets of Financial Institutions (1)	Increase in: Stockholdings of Financial Institutions (2)	Net Stock Purchases (3)	Valuation Change: Absolute Value (4)	Valuation Change: Share in (1) (5)
1952–55	$115	$14	$6	$8	7%
1956–60	168	22	12	10	6
1961–64	339	51	16	35	10
1965–68	263	45	31	14	5
1952–68	885	132	65	67	8

SOURCES: *Flow of Funds Accounts 1945–1968*, except for personal trust fund figures, which are taken from Appendix I.

[a] Not including closed-end investment companies, brokers and dealers, and personal trust funds.

institutions. These transfers may be estimated during the 1960's at about one-tenth of the entire portfolio of corporate stock (excluding investment companies) held by households at the beginning of the period. They amounted to an only slightly smaller fraction during the first half of the period (1952–59).

10. On the average, the net purchases by financial institutions amounted to 1 percent per year of corporate stock outstanding (excluding intercorporate holdings and investment company stock). It is remarkable that the ratio was fairly stable, remaining between 0.8 and 1.2 percent of total stock outstanding in ten of the seventeen years of the period and being only slightly higher (averaging 1.5 percent) in another four years (1961 and 1966–68). They were substantially lower in only two years in the period (1955 and 1964).

11. The importance of financial institutions as traders in corporate stock is evident in two statistics—the velocity of turnover of their portfolios and their share of stock trading on the New York Stock Exchange. From both bodies of data it is evident that the participation of financial

institutions in stock trading during the postwar period increased at least as much as their share in total corporate stock outstanding.

12. While financial institutions, as determined by the periodic surveys of the NYSE, accounted for about one-fifth of all trading on the exchange in the mid-1950's and for one-fourth of public trading (i.e., excluding trading by member brokers and dealers), their share rose considerably and almost continuously during the 1960's to reach about two-fifths of total trading and over one-half of public trading during the first half of 1969.

13. The turnover ratios of the stock portfolios of financial institutions, indicative of the intensity of their trading activities, rose for all types of institutions from 1955 (when the statistics begin) through 1969. The increase was most pronounced for open-end investment companies. For them the velocity rose from one-sixth of the portfolio in 1955 and one-fifth in 1965 to one-half in 1968 and 1969. This acceleration was due to the spread of the performance orientation, involving numerous but relatively short-term engagements and increasing emphasis on in-and-out trading. The same sharp acceleration in turnover ratios in the late 1960's can be observed in the other main groups of financial institutions. Although it occurred here later than in the case of open-end investment companies—in 1967 or 1968 rather than in 1966—it was no less pronounced. Thus, the turnover ratio of life insurance companies nearly doubled between 1966 and 1969 as did that of private pension funds, while the turnover ratio of fire and casualty companies more than tripled. However, the ratios for all of these groups still remained well below those for open-end investment companies. The acceleration of trading by financial institutions was about in line with the movements of the overall turnover ratio on the New York Stock Exchange, which increased from 15 percent in 1965 and 20 percent in 1966 to 33 percent in 1969.

14. The sharp increase in the net purchases of corporate stock by financial institutions in the 1950's and 1960's was the result of two factors: the increase in the total funds available for investment and the change in investment policy that allocated a larger share of available funds to the acquisition of corporate stock. While the first factor was the result of basic forces in the economy which were only in part under the influence of the institutions themselves, the changes in portfolio policy were largely autonomous although they were in some cases influenced by changes in the statutes governing the investments of the respective institutions.

For all types of financial institutions, excluding investment companies (which always had invested the bulk of their funds in corporate stock), the share of corporate stock in the net acquisition of financial assets sharply increased over this period. Comparing three-year averages to avoid erratic movements, the share of corporate stock in total net acquisitions of financial assets increased from 1952–54 to 1967–69 from less than 30 to over 80 percent for uninsured private pension funds; from $1\frac{1}{2}$ percent to 25 percent for state and local pension funds; from 15 to nearly 40 percent for non-life-insurance companies; and from 4 to over 6 percent for mutual savings banks. It is this dramatic change in investment policy, discussed in somewhat more detail in Chapter 5, section 2, that must be regarded as the most important aspect of the postwar activities of financial institutions in the market for common stock.

6. PARTICIPATION OF FOREIGN INVESTORS IN THE AMERICAN STOCK MARKET

The transactions of foreign investors in American corporate stock are of particular interest for three reasons: (1) They are sometimes an important factor in the demand for or the supply of stock. In this respect foreigners are in the same position as institutional and noninstitutional groups of domestic investors as buyers or sellers of stock, or as financial corporations as issuers. (2) To the extent of net foreign purchases or sales of American corporate stock there may be a net sales or purchase balance by all domestic investors. (3) These transactions are important to the balance of payments and thus, indirectly, to monetary policy. Continuous substantial net purchases of American corporate stock by foreign investors obviously permit larger net imports of commodities and services, larger net exportation of capital, or larger accumulation of monetary metals than would otherwise be possible. Protracted net sales have the opposite effect.

From 1952 through 1968 the net purchases of American corporate stock by foreign investors totalled $3.7 billion as shown in Table 3-35.[17] This amount is small compared to the net purchases by some domestic investor groups—particularly investment companies ($16 billion) and uninsured pension funds ($35 billion)—during the same period and equals only 5 percent of net purchases by all domestic financial institutions. Still, it is substantial in relation to the total increase in the supply of stock. Net foreign stock purchases were about one-seventh of total net stock issues in the period 1953–68 and accounted for about one-fourth of total net cash issues. From 1952 through 1968, American open-end investment companies sold $1.5 billion, or about 4 percent, of their shares

[17] For the methods of calculating the figures and their limitations, see Appendix VII.

TABLE 3-35

Transactions by Foreign Investors in United States Corporate Stock, 1958–68

	Trading[a] ($billion) (1)	Average Holdings[b] ($billion) (2)	Turnover Ratio (3)	Trading on Securities Exchanges[c] ($billion) (4)	Share of Foreigners[d] (percent) (5)	Net Purchases ($billion) (6)	Ratio of Trading to Net Purchases (7)	Stock Price Changes[e] (percent) (8)
1958	2.85	7.20	0.40	77	3.7	−0.05	−57.0	34.0
1959	4.08	8.85	0.46	104	3.9	0.36	11.3	7.3
1960	3.75	9.35	0.40	90	4.2	0.21	17.8	−0.5
1961	5.81	10.55	0.55	128	4.5	0.33	17.6	20.5
1962	4.41	11.05	0.40	110	4.0	0.11	40.1	5.1
1963	5.25	11.40	0.46	129	4.1	0.19	27.6	2.0
1964	6.51	13.15	0.50	145	4.5	−0.35	−18.6	12.9
1965	7.77	14.20	0.55	189	4.1	−0.51	−15.2	8.8
1966	9.82	13.60	0.72	247	4.0	−0.34	−29.8	−10.4
1967	15.31	14.05	1.09	324	4.7	0.75	20.4	14.8
1968	23.97	17.50	1.43	394	6.1	2.27	10.6	9.5

SOURCE: Appendix VII.
[a] Purchases plus sales.
[b] Average of value of holdings at beginning and end of year.
[c] Twice volume of trading (*35th Annual Report of U.S. Securities and Exchange Commission*, p. 193).
[d] Slightly too high because trading by foreigners off exchanges is disregarded.
[e] Standard and Poor's 500 stock average; year end to year end.

to foreigners. If the redemption rates had been the same for foreign as for domestic stockholders (about 50 percent) open-end-company shares would have accounted for about one-fifth of the net purchases of American corporate stock by foreigners.[18]

Thus, the net purchases or sales by foreign investors are likely to have exercised a considerable effect on the supply-demand situation in corporate stock during the period, and certainly during those parts of it when either net sales or net purchases were substantial in relation to the increase in the total supply of corporate stock. In 1956, for example, net foreign purchases were equal to 7 percent of all net new stock issues and to 10 percent of issues excluding investment companies. The latter may be the more relevant comparison since probably only a small fraction of foreign purchases was directed toward investment company issues. The corresponding ratios were as high as 15 and 33 percent respectively in 1957, and in 1968 large net foreign purchases occurred in the face of a small net reduction in the supply of domestic corporate stock.

These purchases, however, resulted in the transfer of only approximately 0.5 percent of the total amount of American corporate stock into foreign hands. The percentage was considerably higher in individual issues popular with foreign investors.

There is little evidence of a trend over the entire postwar period in the net purchase or sales balance of American corporate stock by foreign investors (Table 3-36). Small purchase balances prevailed from 1952 through 1963, except for a very small sales balance in 1958, a year of recession, and a somewhat larger than average purchase balance in 1956, 1959, and 1961, all years in which stock prices rose substantially. Movements were more pronounced during the last half-dozen years. Foreigners' sales exceeded their purchases by $1.2 billion from 1964 through 1966, a period in which American stock prices advanced substantially. This was due mainly to sales of American stock held by the British government, a transaction presumably reflecting that country's contemporary balance of payments difficulties. On the other hand, heavy purchase balances developed during 1967 and particularly during 1968 when they exceeded $2.2 billion in the period in which American stock prices reached their peak. The volume of net purchases was much reduced in 1969, when stock prices began to decline.

It is apparent from an examination of the net purchases column of Table 3-35 that until recent years, foreign purchases of U.S. stocks were

[18] Based on figures in *Mutual Fund Fact Book 1970*, pp. 14, 68 ff.

TABLE 3-36

Ratio of Net Purchases of American Corporate Stock by Foreigners to Total Issues and Outstandings, 1952–68

		Ratio (percent) to:		
	Net Purchases ($billion) (1)	Net Issues of Domestic Corporate Stock (2)	Domestic Corporate Stock Outstanding (3)	Net Purchases by Domestic Financial Institutions (4)
1952	0.00	0.0	.000	0.0
1953	0.06	2.5	.027	4.0
1954	0.14	6.1	.054	8.8
1955	0.13	4.8	.040	8.2
1956	0.26	7.0	.074	15.1
1957	0.14	3.6	.042	6.2
1958	−0.05	−1.4	−.013	−1.8
1959	0.36	8.8	.076	10.2
1960	0.21	6.6	.042	5.7
1961	0.33	6.3	.057	7.6
1962	0.11	4.2	.018	2.7
1963	0.19	19.0	.030	5.2
1964	−0.35	−10.6	−.047	−8.0
1965	−0.51	−17.0	−.061	−9.0
1966	−0.34	−6.9	−.040	−5.5
1967	0.75	15.6	.081	7.8
1968	2.27	59.7	.201	21.8
1952–68 average	0.22	5.9	.032	5.1

SOURCE: Appendix VII.

insignificant. The single most influential cause of the recent apparent shift in investor attitudes in favor of U.S. equities has been expansion of investor interest and mutual fund sales activities abroad. Both newly formed and older, more established open-end investment companies have aggressively sought out new markets outside the United States for their own shares on the strength of their performance during the mid-sixties. Overseas expansion and concomitant changes in attitudes were conditioned to some extent by a U.S. government program of encouraging investment in U.S. securities by foreigners and removing barriers to it.

The 1965 and 1968 direct investment restraint programs, aimed at alleviating pressure on the U.S. balance of payments, forced American firms to increase their reliance on the Eurobond market to maintain foreign direct investment levels. The unprecedented increase in new issues of U.S. securities on this market provided new opportunities for the European investor to purchase American equities, often in the form of convertible bonds.

European investment behavior during the period under discussion was further influenced by exogenous economic and political factors that probably induced capital migrations to the United States. Among them were currency instability, the 1967 Middle East crisis, the 1968 events in France, and the Soviet invasion of Czechoslovakia.

Since foreign holders of American shares participated in the generally upward trend in stock prices during the period, the aggregate value of their holdings of American corporate securities increased sharply from about $3 billion at the end of 1951 to nearly $20 billion seventeen years later. Of the increase in value, about five-sixths were due to the rise in stock prices and less than one-sixth to net purchases. The share of foreign investors in the total market value of corporate stock outstanding (excluding intercorporate holdings) stayed at around 2 percent throughout the period. Since it may be assumed that foreign holdings of American corporate stock are heavily concentrated in issues listed on the New York Stock Exchange, their share there may be about 3 percent.

As in the case of domestic investor groups, the purchase and sales balances of foreign investors are the result of much larger transactions. From 1958 through 1968, the only period for which these figures are available, purchases and sales combined came to $90 billion, a sum about thirty times as large as the net purchase balance of $3.0 billion. Assuming that most of the trading took place on exchanges, foreign investors would have accounted for about 4 percent of total stock trading against a share of only 2 percent in holdings of American corporate stock. This indicates that the velocity of turnover of foreign investors' portfolios of American corporate stock was higher than the average for all domestic investors. An average ratio of slightly over 60 percent for the period 1958–68 compares with one of a little over 20 percent for all stocks listed on exchanges (excluding intercorporate holdings). The ratio is higher than that for American individual holders of corporate stock and is closer to that of the more actively trading institutional holders of corporate stock—open-end investment companies.[19] This is not unexpected as a probably considerable part of foreign holdings of American corporate stock are in the hands of, or are administered by, financial institutions. As is the case for American investors, particularly institutional holders of corporate stock, the turnover ratio, which had been fairly stable at around 50 percent from 1958 through 1965, rose rapidly in the last three years of the period, exceeding 135 percent in 1968. Thus, foreign investors in American corporate stock conformed in this respect also to the behavior of American investors, apparently being no more immune to this trend than they were to the speculative fever of the late 1960's.

European investors (or more correctly, investors handling their transactions in American securities through European banks, brokers, or dealers) accounted for about two-thirds of the total trading in American corporate stock by foreigners. About one-half of this amount was accounted for by transactions from Switzerland, but it is certain that residents of that country were responsible for only part of the volume originating there. British investors or organizations originated about one-fifth of all European transactions and about one-seventh of all transactions by foreign investors. Canadian investors accounted for almost one-fifth of all foreign trading in American corporate stock, Latin American investors for about one-tenth; while the rest of the world contributed not much more than 5 percent. Net purchases of American securities, however, were distributed in a quite different way among the different regions. Thus, Canadian investors, although originating less than one-fifth of all foreign purchases and sales, were on balance purchasers and accounted for more than two-fifths of the net purchase balance of all foreign investors. In contrast, British investors had net sales balances in most years, and for the period as a whole they showed a sales balance of more than $1.1 billion, probably in part a result of British foreign exchange control. Details about the geographic distribution of transactions, sales balances, and holdings by foreign investors may be observed in Tables 3-37 to 3-39, below.

[19] For the velocity of their stock portfolios, see Table 3-32.

TABLE 3-37

Net Purchases or Sales of U.S. Corporate Stock by Foreign Investors in Main Regions, 1952–68

(*$billion*)

	All Countries (1)	Canada (2)	United Kingdom (3)	Switzer-land (4)	Other European Countries (5)	Latin America (6)	Other Countries (7)
1952	0.00						
1953	0.06						
1954	0.14						
1955	0.13						
1956	0.26						
1957	0.14						
1958	−0.05	−.05	.00	.01	−.04	.01	.02
1959	0.36	−.02	.02	.21	.09	.03	.03
1960	0.21	−.01	−.04	.12	.10	.01	.03
1961	0.33	−.03	−.01	.16	.10	.04	.07
1962	0.11	.04	−.04	.13	.02	−.02	−.02
1963	0.19	.00	.20	−.03	.00	.01	.01
1964	−0.35	.04	−.18	−.22	−.02	.03	.00
1965	−0.51	.05	−.40	−.12	−.04	−.01	−.01
1966	−0.34	.23	−.52	−.06	−.06	.04	−.07
1967	0.75	.27	−.12	.25	.21	.08	.06
1968	2.27	.38	−.03	.82	.78	.15	.17

NOTE: Sales are indicated by a minus sign.
SOURCE: *Treasury Bulletin,* various issues.

TABLE 3-38

Activities of Foreign Investors in U.S. Corporate Stocks, by Main Regions, 1958–68

(*$billion*)

	Trading (1)	Net Purchase (2)	Increase in Value of Holdings (3)	Average Holdings (4)	Ratio: Col. (1) to Col. (4) (5)	Ratio: Col. (2) to Col. (3) (6)	Turnover Ratio: Col. (1) to Col. (4) (7)
Canada	16.44	0.90	2.39	1.68	18.2	.38	9.8
Europe	59.05	1.31	8.57	8.57	45.0	.15	6.9
Switzerland	30.67	1.27			24.2		
United Kingdom	12.54	−1.12			11.2		
Other Europe	15.84	1.16			13.7		
Latin America	8.90	0.40	0.92	0.94	22.3	.43	9.5
Other countries	5.14	−0.41	1.56	0.63	12.5		8.2
All foreign countries	89.53	2.27	13.44	11.82	40.0	.17	7.6

SOURCE: Derived from *Treasury Bulletin*.

TABLE 3-39

Foreign Holdings of U.S. Corporate Stock, 1953–68

(*$billion*)

	Total (1)	Canada (2)	Western Europe (3)	Latin America (4)	Other Countries (5)
1953	3.65	0.68	2.53	0.29	0.15
1954	5.25	0.94	3.66	0.42	0.23
1955	6.58	1.09	4.64	0.52	0.33
1956	6.96	1.09	4.97	0.56	0.34
1957	6.09	0.88	4.42	0.49	0.30
1958	8.31	1.17	6.03	0.66	0.45
1959	9.36	1.25	6.86	0.74	0.51
1960	9.30	1.21	6.84	0.73	0.52
1961	11.81	1.46	8.71	0.93	0.71
1962	10.34	1.24	7.70	0.79	0.61
1963	12.49	1.49	9.31	0.94	0.75
1964	13.84	1.73	10.16	1.08	0.87
1965	14.60	1.93	10.53	1.17	0.97
1966	12.64	1.93	8.74	1.08	0.89
1967	15.51	2.54	10.51	1.27	1.19
1968	19.53	3.27	12.99	1.41	1.86

NOTE: All figures for end of year indicated.
SOURCES: *Survey of Current Business*, various issues.