

This PDF is a selection from an out-of-print volume from the National Bureau of Economic Research

Volume Title: The Flow of Capital Funds in the Postwar Economy

Volume Author/Editor: Raymond W. Goldsmith

Volume Publisher: UMI

Volume ISBN: 0-870-14112-0

Volume URL: <http://www.nber.org/books/gold65-1>

Publication Date: 1965

Chapter Title: Internal and External Financing

Chapter Author: Raymond W. Goldsmith

Chapter URL: <http://www.nber.org/chapters/c1683>

Chapter pages in book: (p. 103 - 148)

## CHAPTER 4

# Internal and External Financing

---

### *The National Picture for the Postwar Period*

THE national aggregates of financial flows are of only limited interest because, in a country in which external flows are as small as in the United States (about 1 to 2 per cent of total sources or uses of funds<sup>1</sup>), gross saving is necessarily approximately equal to domestic gross capital formation, net saving is equal to net capital formation, and lending (including acquisition of equity securities) is equal to borrowing (including issuance of equity securities). The only relationships that retain significance on a national scale are the ratio of capital consumption allowances to gross capital formation, and hence the division of internal funds into capital consumption allowances and net saving; the ratio of external finance in the broadest sense (the sum of net lending or borrowing) to internal finance and to net and gross capital formation; and the structure of external financing, i.e., the division between debt and equity and between short- and long-term financing. These relations can be studied in Table 21 and Chart 6.

#### THE POSTWAR PERIOD AS A WHOLE

For the postwar period as a whole, capital consumption allowances, based on replacement cost, uniform and reasonably realistic length-of-life assumptions, and straight-line depreciation, amounted to two-thirds of gross capital formation including military assets and to three-fifths excluding them (Table 22).<sup>2</sup> While alternative, justifiable calculations

<sup>1</sup> Raymond W. Goldsmith, *The National Wealth of the United States in the Postwar Period*, Princeton for NBER, 1962, Table B-187, p. 422.

<sup>2</sup> Since inventories are not subject to depreciation, it might be more appropriate to use the ratio of expenditures on structures and equipment to capital consump-

# Internal and External Financing

TABLE 21  
COMBINED SOURCES AND USES OF FUNDS OF ALL SECTORS, 1946-58

	Annual Averages (billion dollars)				Shares (per cent)			
	1946-49 <sup>a</sup>	1949-54 <sup>a</sup>	1954-58 <sup>a</sup>	1946-58	1946-49	1949-54	1954-58	1946-58
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
I. Uses								
1. Gross capital expenditures	69.4	103.9	136.3	105.4	65.4	63.4	63.9	64.3
2. Acquisition of financial assets	36.7	60.2	76.9	58.6	34.6	36.7	36.1	35.7
a. Short-term assets	13.2	28.1	32.7	24.4	12.4	17.1	15.3	14.9
i. Loans	16.7	25.5	33.1	25.1	15.7	15.5	15.5	15.3
ii. Bills and notes	-3.5	2.6	-0.4	-0.7	-3.3	1.6	-0.2	-0.4
b. Long-term assets <sup>b</sup>	21.5	29.2	40.0	31.0	20.3	17.8	18.8	18.9
i. Loans	17.6	20.8	28.9	22.6	16.6	12.7	13.6	13.8
ii. Bonds	3.9	8.4	11.1	8.4	3.7	5.1	5.2	5.1
c. Equities <sup>b</sup>	2.0	2.9	4.2	3.2	1.9	1.8	2.0	2.0
3. Total uses	106.1	164.0	213.2	164.0	100.0	100.0	100.0	100.0
II. Sources								
1. Gross saving	74.1	102.6	137.9	106.6	69.8	62.6	64.7	65.0
a. Depreciation	50.3	65.6	89.7	69.9	47.4	40.0	42.1	42.6
b. Net saving	23.8	37.0	48.2	36.7	22.4	22.6	22.6	22.4
2. External sources	32.0	61.5	75.3	57.4	30.2	37.5	35.3	35.0
a. Short-term liabilities <sup>b</sup>	10.3	30.6	33.3	24.9	9.7	18.7	15.6	15.2
i. Loans	14.0	27.5	33.3	25.3	13.2	16.8	15.6	15.4
ii. Bills and notes	-3.7	3.1	0	-0.4	-3.5	1.9	0	-0.2
b. Long-term liabilities <sup>b</sup>	19.7	27.9	37.8	29.3	18.6	17.0	17.7	17.9
i. Loans	15.6	19.5	26.7	20.9	14.7	11.9	12.5	12.7
ii. Bonds	4.1	8.4	11.1	8.4	3.9	5.1	5.2	5.1
c. Equities <sup>b</sup>	1.9	2.9	4.2	3.1	1.8	1.8	2.0	1.9
3. Total sources	106.1	164.0	213.2	164.0	100.0	100.0	100.0	100.0
4. Inventory profits	5.5	0.5	2.6	2.8	5.2	0.3	1.2	1.7

## Internal and External Financing

### NOTES TO TABLE 21

Source: National Balance Sheet, Vol. II.

#### Section I

Line 1: Table VIII-a-7, line 10.

Line 2: Table V, line II-21.

Line 2a: Sum of lines 2a1 and 2a1i.

Line 2a1: Table V, sum of lines II-1, 2, 6, 7, 8, 10; Table VIII-b-20, line 11; and Table VIII-b-9, line 8, minus Table VIII-c-9b, line 8.

Line 2a1i: Table V, line II-13a, plus first difference of Table III-5L-a, col. 1.

Line 2b: Sum of lines 2b1 and 2b1i.

Line 2b1: Table V, sum of lines II-3, 4, 5, 11, 12; Table VIII-c-9b, line 8; and Table VIII-b-20, lines 9 and 10.

Line 2b1i: Table V, sum of lines II-13b, 13c, 14, and 15, minus the first difference of Table III-5L-a, col. 1.

Line 2c: Table V, sum of lines II-16 and II-17.

Line 3: Tables VII-1 through VII-7-1, lines V.

#### Section II

Line 1: Tables VII, line IV-3, of all sectors.

Line 1a: Table VIII-a-7, line 10, minus VIII-a-7b, line 10.

Line 1b: Lines 1 minus 1a.

Line 2: Table V, sum of lines III-14, IV-1, and IV-2.

Line 2a: Sum of lines 2a1 and 2a1i.

Line 2a1: Table V, sum of lines III-1, 2, 6, 7, 8, 10, 13, and Table VIII-c-9a, line 8.

Line 2a1i: Table VIII-b-13a, line 10, and first difference of col. 1, Table III-5L-a.

Line 2b: Sum of lines 2b1 and 2b1i.

Line 2b1: Table V, sum of lines III-3, 4, 5, and 11, and Table VIII-c-9b, line 8.

Line 2b1i: Table VIII-b-13b, line 9, plus Table VIII-b-13c, line 11, plus Table VIII-c-12, lines 4, 5, 6, and 7b, minus first difference of Table III-5L-a, col. 1.

Line 2c: Table V, lines IV-1 and 2.

Line 3: Same as line I-3.

Line 4: Table VIII-a-6b, line 10, minus Table VIII-a-6d, line 10.

<sup>a</sup>Cycle averages.

<sup>b</sup>Differences between lines I-2a and II-2a, lines I-2b and II-2b, and lines I-2c and II-2c are due mainly to the fact that the rest-of-the-world sector was not introduced explicitly in all the basic tables, i.e., in National Balance Sheet Vol. II, Tables V and VII.

Note: Components may not add to totals because of rounding here and elsewhere in this chapter.

of capital consumption allowances—particularly the use of declining balance instead of straight-line depreciation—would yield slightly different results, the range would probably remain between three-fifths and three-fourths including military assets and between five-ninths and six-ninths excluding them.<sup>3</sup>

---

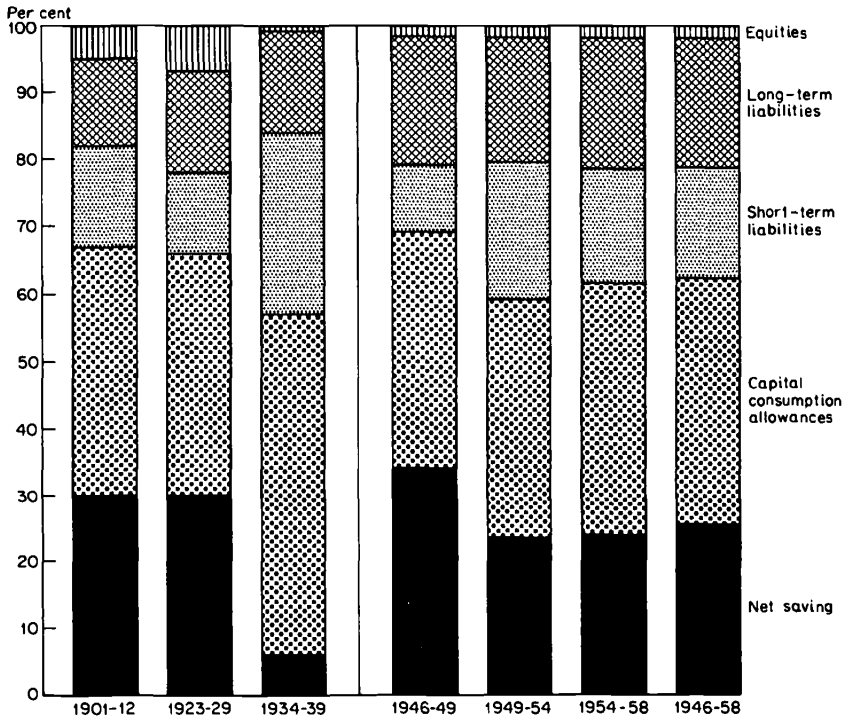
tion allowances. For the postwar period as a whole, this ratio amounted to 71 per cent if military assets are included and to 64 per cent if they are excluded. (See Raymond W. Goldsmith, Robert E. Lipsey, and Morris Mendelson, *Studies in the National Balance Sheet of the United States*, Princeton for NBER, 1963, Vol. II, Tables VIII-a-6 and VIII-a-7.)

<sup>3</sup> Use of original (instead of replacement) cost as the basis of capital consumption allowances, for instance, would reduce the share of these allowances for the entire

## *Internal and External Financing*

CHART 6

### TRENDS IN THE STRUCTURE OF FINANCING, MAIN SECTORS COMBINED, 1901-58



Source: Tables 23 and 22.

In the postwar period, if depreciation is considered at replacement cost, internal funds accounted for slightly less than two-thirds of total sources of funds, and external funds for slightly more than one-third. Two-thirds of internal sources of funds are accounted for by capital consumption allowances, and one-third by retained net income. Almost all external financing took the form of fixed face-value liabilities, of which slightly less than half can be classified as short-term and slightly more than half as long-term liabilities. Of the long-term liabilities, more than one-fourth were securities, while somewhat less than three-fourths were loans obtained, primarily mortgages and insurance

---

period 1946-58 from 66 to less than 50 per cent of capital formation. Substitution of declining balance for straight-line allowances, on the other hand, would increase their share by a few percentage points.

Internal and External Financing

TABLE 22  
COMBINED SOURCES AND USES OF FUNDS OF ALL SECTORS, EXCLUDING MILITARY, 1946-58

	Annual Averages (billion dollars)				Shares (per cent)			
	1946-49 <sup>a</sup> (1)	1949-54 <sup>a</sup> (2)	1954-58 <sup>a</sup> (3)	1946-58 (4)	1946-49 (5)	1949-54 (6)	1954-58 (7)	1946-58 (8)
I. Uses								
1. Gross capital expenditures	66.7	90.6	118.6	93.5	64.5	60.1	60.7	61.5
2. Acquisition of financial assets	36.7	60.2	76.9	58.6	35.5	39.9	39.3	38.6
a. Short-term assets <sup>b</sup>	13.2	28.1	32.7	24.4	12.8	18.6	16.7	16.1
i. Loans	16.7	25.5	33.1	25.1	16.2	16.9	16.9	16.5
ii. Bills and notes	-3.5	2.6	-0.4	-0.7	-3.4	1.7	-0.2	-0.5
b. Long-term assets <sup>b</sup>	21.5	29.2	40.0	31.0	20.8	19.4	20.5	20.4
i. Loans	17.6	20.8	28.9	22.6	17.0	13.8	14.8	14.9
ii. Bonds	3.9	8.4	11.1	8.4	3.8	5.6	5.7	5.5
c. Equities <sup>b</sup>	2.0	2.9	4.2	3.2	1.9	1.9	2.1	2.1
3. Total uses	103.4	150.8	195.5	152.0	100.0	100.0	100.0	100.0
II. Sources								
1. Gross saving	71.4	89.3	120.2	94.6	69.1	59.2	61.5	62.2
a. Depreciation	36.1	53.7	73.2	55.7	34.9	35.6	37.4	36.6
b. Net saving	35.3	35.6	47.0	38.9	34.1	23.6	24.0	25.6
2. External sources	32.0	61.5	75.3	57.4	30.9	40.8	38.5	37.8
a. Short-term liabilities <sup>b</sup>	10.3	30.6	33.3	24.9	10.0	20.3	17.0	16.4
i. Loans	14.0	27.5	33.3	25.3	13.5	18.2	17.0	16.6
ii. Bills and notes	-3.7	3.1	0	-0.4	-3.6	2.1	0	-0.3
b. Long-term liabilities <sup>b</sup>	19.7	27.9	37.8	29.3	19.1	18.5	19.3	19.3
i. Loans	15.6	19.5	26.7	20.9	15.1	12.9	13.7	13.7
ii. Bonds	4.1	8.4	11.1	8.4	4.0	5.6	5.7	5.5
c. Equities <sup>b</sup>	1.9	2.9	4.2	3.1	1.8	1.9	2.1	2.0
3. Total sources	103.4	150.8	195.5	152.1	100.0	100.0	100.0	100.0
4. Inventory profits	5.5	0.5	2.6	2.8	5.3	0.3	1.3	1.8

See notes to Table 21.

## *Internal and External Financing*

### NOTES TO TABLE 22

Source: National Balance Sheet, Vol. II.

#### Section I:

Line 1: Table V, line I-7.

Lines 2, 2a-2c: Same as source for Table 21.

Line 3: Table V, line V.

#### Section II

Line 1: Table V, line IV-3.

Line 1a: Table VIII-a-7, line 8, minus Table VIII-a-7b, line 8.

Line 1b: Lines 1 minus 1a.

Lines 2, 2a-2c: Same as in Table 21.

Line 3: Same as line I-3.

Line 4: Table VIII-a-6b, line 8, minus Table VIII-a-6d, line 8.

liabilities. Equities provided only 5 per cent of external financing, the sale of stocks in nonfinancial corporations alone accounting for 4 per cent of this total.

The implications of these figures for the relative importance of the capital market measured by the value of the external financing is misleading because net figures for entire sectors have been used as a basis of calculation. Consequently, repayments offset part of new loans made, and net purchases by some members of the sector offset net sales of financial assets by others. In many cases the volume of gross financing is more relevant for capital market analysis.

Although no comprehensive gross figures are available, the ratio of gross external financing to total gross uses of funds is obviously higher than the ratio of net external financing to total net uses, which is shown in Table 21, since such a shift would raise the volume of lending and borrowing considerably, but would affect gross capital expenditures much less, and leave capital consumption allowances and saving unchanged. While it is true that, on the basis of the combined net flow-of-funds accounts of all economic units, external financing satisfied about one-third of total needs for funds in the U.S. in the postwar period, the ratio is not well suited to measure the importance of external financing. For that purpose, figures on a gross basis and for smaller sectors are needed. Both would show higher ratios for external financing. For home mortgages, one of the few cases for which both gross and net estimates are available, the gross volume of financing during 1946-58 is two and a half times as large as the net volume (see Table 102).

### STRUCTURAL CHANGES DURING THE POSTWAR PERIOD

As in Chapter 3, structural changes during the postwar period will be studied by comparing annual averages for the three business cycles of

## *Internal and External Financing*

1946-49, 1949-54, and 1954-58. The basic data will be found in Table 21, both in absolute terms and in percentages of total funds absorbed. Examination of the figures leads to two conclusions:

1. Changes in the structure of financing, i.e., differences in the distribution of sources of funds among the three postwar cycles, are relatively small considering the sharp increase in the nominal and real values involved. The annual average volume of financing, represented by total sources of funds, rose from \$106 billion in 1946-49 to \$164 billion in 1949-54 and \$213 billion in 1954-58. After reducing these figures to the common price basis of 1947-49 by using the GNP deflator, the average still increases from \$101 billion in the first to \$168 billion in the third cycle. Even in relation to gross national product, the volume of financing rose from slightly above 40 per cent in the first cycle to over 50 per cent in the second and third cycles.

2. The second and third cycles are extremely similar in the structure of financing, while the first cycle differs in several respects, although not radically.

These two conclusions are the same as those that emerged from the study of the structure of capital expenditures in the postwar period in Chapter 3.

The main difference in the structure of financing for all sectors taken together between the 1946-49 cycle, on the one hand, and the 1949-54 and 1954-58 cycles, on the other, is the lower share of internal financing in the second and third cycles. Before adjustment for inventory valuation changes, i.e., including inventory profits in internal sources of funds, the share of internal financing declines from 70 per cent in the first cycle to 63 and 65 per cent in the second and third cycles. After elimination of inventory valuation adjustments, the difference is less pronounced, but the share still declines from 65 per cent in the first to 62 and 64 per cent in the second and third cycles. However, if military capital expenditures are excluded (Table 22), the share of internal financing in total sources of funds (after exclusion of inventory profits) falls from 64 per cent in 1946-49 to about 60 per cent in the cycles of 1949-54 and 1954-58. The reduction in this case is due exclusively to the decline in the share of retained income as a source of finance. The share of capital consumption allowances in total funds is higher in the second and third cycles than in the first cycle, if only civil capital expenditures are considered, and the share of net saving within internal financing shows a substantial decline from 1946-49 to the rest of the postwar period.



## *Internal and External Financing*

The division of external funds among short- and long-term sources differed from one cycle to another. Short-term funds amounted to one-third of all external sources (including equities) in 1946-49, one-half of all external funds in 1949-54, and over two-fifths in 1954-58.<sup>4</sup>

Considerable shifts occurred within both short- and long-term funds. In the former, the importance of bank loans declined from about one-fifth of all short-term external financing in the first cycle to about one-fourteenth in the second cycle and one-sixteenth in the third cycle. This relative decline is possibly connected with the smaller inventory accumulation in current dollars in the second and third cycles.<sup>5</sup>

Among long-term funds, the share of equity securities was fairly stable, rising from 9 to 10 per cent between 1946-49 and 1954-58. Thus the sharp increase in stock prices during the second and third cycles did not lead to an increase in the share of equity financing; the absolute volume of equity financing rose by 50 per cent from each cycle to the succeeding one.

A more pronounced change in external financing occurred in bonds. They amounted to one-fifth of long-term and one-eighth of total external financing in the first cycle, and over one-fourth of long-term and about one-seventh of total external financing in both the second and third cycles. This was the result of several crosscurrents, particularly the substantial reduction in federal debt during the first cycle compared with its moderate expansion during the second cycle and no expansion in the third cycle; it is also due to a rapid growth of state and local government bond issues in the second and third cycles (Table 45).

The share of mortgages in long-term financing was about one-third in all postwar cycles. Mortgages provided with fair regularity about 6 per cent of total financing and between one-fifth and one-sixth of external financing during each of the three cycles.

The share of other long-term funds—mostly originating in insurance and pension contracts—was considerably higher during the first cycle, when they accounted for over one-third of all long-term funds, than in the third cycle, when they contributed one-fourth. The decline was concentrated in government insurance and pension funds, the abso-

<sup>4</sup> Because of insufficient identification of long-term liabilities, the proportion of long-term funds is probably slightly understated in the statistics, but the corrections would not seriously affect the relation of short- to long-term funds among the three cycles.

<sup>5</sup> *National Balance Sheet*, Vol. II, Table VIII-a-6b.

## *Internal and External Financing*

lute growth of which declined slightly over the period. The net flow into life insurance companies and private pension funds expanded sufficiently to maintain a constant share of one-fifth in total long-term funds during all the postwar period.<sup>6</sup>

### *The National Picture for Prewar Periods*

In view of the expansion of the American economy (both in volume and value) in the postwar period compared with the first three decades of the century, the considerable changes in the structure of the economy, and, in particular, the institutional developments in finance, the relationship between (and the structure of) internal and external financing in the postwar period might be expected to differ considerably from those of earlier periods. Table 23 shows the extent to which such expectations are borne out by the statistics. Caution is necessary in drawing inferences from the figures because of the extreme aggregation—only national totals are shown—and because of differences in the concepts and methods of derivation of the data.

The main features of the structure of financing on a national scale during the postwar period are fairly similar to those observed in the predepression periods of 1901–12 and 1923–29, although they differ considerably from those of 1934–39. In all periods except the 1930's, internal and external funds on a gross basis accounted for about the same proportion of total funds. On a net basis, the share of internal financing shows a decline between 1901–12 and 1923–29 and the postwar period. This difference reflects an increase in the ratio of capital consumption allowances to net saving between the two predepression periods and the postwar period.

Within external funds, the movements of the share of equities were erratic. The postwar ratio was considerably below the two predepression periods, but above the 1934–39 ratio. The contribution of equities to total financing, of course, shows about the same fluctuations, although it is lower in percentage points. The share of borrowing in total gross flow of funds was fairly constant in the predepression period and rose from 27–28 to 36 per cent in the postwar period. The comparable figures on a net basis also show a substantial increase, from 45 to 58 per cent.

<sup>6</sup> *National Balance Sheet*, Vol. II, Tables VIII-c-3, VIII-c-4, and VIII-c-5.

Internal and External Financing

TABLE 23  
TRENDS IN THE STRUCTURE OF FINANCING, NATIONAL AGGREGATES, <sup>a</sup> 1901-58

Source	Share in Total Funds (per cent)			Share in Net Funds <sup>b</sup> (per cent)				
	1901-12 (1)	1923-29 (2)	1934-39 (3)	1946-58 <sup>c</sup> (4)	1901-12 (5)	1923-29 (6)	1934-39 (7)	1946-58 (8)
I. Internal								
1. Total	67	66	57	62	47	47	12	39
2. Capital consumption allowances	37	36	51	38				
3. Net saving	30	30	6	24	47	47	12	39
II. External								
1. Total	33	34	43	38	53	53	88	61
2. Borrowing	28	27	42	36	45	42	85	58
a. Short-term	15	12	26	17	24	19	53	27
b. Long-term	13	15	15	19	21	23	32	31
3. Equities	5	7	1	2	8	11	3	3
III. Total	100	100	100	100	100	100	100	100
IV. Total (billion dollars)	140.4	324.4	201.6	1,935.8	89.0	208.2	98.3	1,215.3

Source: Same as for Tables 36 to 42.

Note: Components may not add to total because of rounding.

<sup>a</sup>Where possible the classification of prewar data is according to NBER flow-of-funds accounts for the postwar period.

<sup>b</sup>Total funds minus capital consumption allowances.

<sup>c</sup>Depreciation of financial sector has been excluded for the sake of comparability with the pre-1946 data.

## *Internal and External Financing*

### *Distribution of Main Uses and Sources of Funds Among Sectors*

#### POSTWAR PERIOD

Tables 25 and 27, which are derived from Table 24, provide a bird's-eye view of the main characteristics of the financing process in the postwar period as a whole but, of course, only for broad sectors and for broad categories of uses and sources. A look at the distribution of the various sources and uses of funds among the main sectors (Tables 24 and 25) shows the dominating positions of households and non-financial business in gross capital expenditures and gross saving, of households and financial institutions in the acquisition of financial assets, and of financial institutions in the incurrence of financial liabilities.

If the agricultural sector is roughly allocated among business and household activities, households accounted during the period as a whole for about half of civilian gross capital expenditures, business for two-fifths, and government for one-tenth. If military expenditures are included, the share of the government rises to one-fifth and that of the other two main sectors is reduced (see Table 25).

Financial institutions accounted for slightly more than two-fifths of the net acquisition of financial assets, households for more than one-third, nonfinancial business for nearly one-fifth, and government for only an insignificant percentage. Considerable differences, of course, exist among the main types of financial assets. Most of the increase in the holdings of short-term claims was divided about equally among financial institutions, nonfinancial business, and households, while the increase in holdings of long-term claims was divided primarily between households and financial institutions. More than four-fifths of the increase in bonds outstanding, however, was absorbed by financial institutions. On the other hand, households absorbed nearly three-fifths of the net issues of equity securities, while financial institutions acquired about two-fifths, more by net purchases of outstanding equity securities than through the acquisition of newly issued stock.

Of the total increase in external sources, about two-fifths was incurred by financial institutions, mostly in the form of deposit and insurance liabilities; about one-third by nonfinancial business mostly as trade debt, bank loans, mortgages, and bonds and notes; and about one-fifth by households, chiefly as mortgages and consumer debt. The government during this period accounted for only 7 per cent of the

TABLE 24  
 SOURCES AND USES OF FUNDS, BY SECTOR, 1946-58  
 (billion dollars)

	Nonfarm Households (1)	Agri- culture (2)	Unincorp. Business (3)	Nonfinancial Corporations (4)	Finance (5)	State and Local Govts. (6)	Federal Government <sup>a</sup> (7)	Total (8)
I. Uses								
1. Gross capital expenditures	554.3	95.1	75.1	359.3	5.5	105.9	175.4	1,370.6
2. Acquisition of financial assets	271.9	7.4	15.3	117.9	323.5	17.6	7.4	761.0
a. Short-term assets	103.2	3.1	15.3	95.1	90.6	12.2	-2.6	316.9
i. Loans	100.6	3.1	15.3	95.0	106.0	8.6	-2.6	326.0
ii. Bills and notes	2.6	0	0	0.1	-15.4	3.6	0	-9.1
b. Long-term assets	145.4	4.4	0	21.0	216.9	5.5	10.0	403.2
i. Loans	134.5	3.3	0	20.4	126.3	1.6	8.2	294.3
ii. Bonds	10.9	1.1	0	0.6	90.6	3.9	1.8	108.9
c. Equities	23.2	0	0	1.9	16.0	0	0	41.1
3. Total uses	826.2	102.5	90.4	477.3	329.0	123.5	182.8	2,131.8
II. Sources								
1. Gross saving	680.4	89.2	61.6	277.7	22.5	82.2	172.6	1,386.2
a. Depreciation	346.2	68.6	49.4	186.6	3.7	53.6	200.1	908.2
b. Net saving	334.2	20.6	12.2	91.1	18.8	28.6	-27.5	478.0
2. External sources	145.8	13.3	28.9	199.5	306.5	41.3	10.2	745.5
a. Short-term liabilities	47.2	6.8	17.5	90.6	166.8	1.4	-7.0	323.3
i. Loans	47.2	6.8	17.5	90.6	164.3	1.4	0.7	328.5
ii. Bills and notes	0	0	0	0	2.5	0	-7.7	-5.2
b. Long-term liabilities	98.6	6.5	11.4	78.2	129.6	39.9	17.2	381.4
i. Loans	98.6	6.5	11.4	32.1	123.2	0	0	271.8
ii. Bonds	0	0	0	46.1	6.4	39.9	17.2	109.6
c. Equities	0	0	0	30.7	10.1	0	0	40.8
3. Total sources	826.2	102.5	90.4	477.3	329.0	123.5	182.8	2,131.8
4. Inventory profits	0	6.5	5.6	24.3	0	0	0	36.4

Source: See Tables 29-35.

<sup>a</sup>See bottom panel of Table 34.

TABLE 25  
DISTRIBUTION OF SOURCES AND USES OF FUNDS, BY SECTOR, 1946-58  
(per cent)

	Nonfarm Households (1)	Agri- culture (2)	Unincorp. Business (3)	Nonfinancial Corporations (4)	Finance (5)	State and Local Govts. (6)	Federal Government (7)	Total (8)
<b>I. Uses</b>								
1. Gross capital expenditures	40.4	6.9	5.5	26.2	0.4	7.7	12.8	100.0
2. Acquisition of financial assets	35.7	1.0	2.0	15.5	42.5	2.3	1.0	100.0
a. Short-term assets	32.6	1.0	4.8	30.0	28.6	3.8	-0.8	100.0
i. Loans	30.9	1.0	4.7	29.1	32.5	2.6	-0.8	100.0
ii. Bills and notes <sup>a</sup>	28.6	0	0	1.1	-169.2	39.6	0	-100.0
b. Long-term assets	36.1	1.1	0	5.2	53.8	1.4	2.5	100.0
i. Loans	45.7	1.1	0	6.9	42.9	0.5	2.8	100.0
ii. Bonds	10.0	1.0	0	0.6	83.2	3.6	1.7	100.0
c. Equities	56.4	0	0	4.6	38.9	0	0	100.0
3. Total uses	38.8	4.8	4.2	22.4	15.4	5.8	8.6	100.0
<b>II. Sources</b>								
1. Gross saving	49.1	6.4	4.4	20.0	1.6	5.9	12.5	100.0
a. Depreciation	38.1	7.6	5.4	20.5	0.4	5.9	22.0	100.0
b. Net saving	69.9	4.3	2.6	19.1	3.9	6.0	-5.8	100.0
2. External sources	19.6	1.8	3.9	26.8	41.1	5.5	1.4	100.0
a. Short-term liabilities	14.6	2.1	5.4	28.0	51.6	0.4	-2.2	100.0
i. Loans	14.4	2.1	5.3	27.6	27.6	0.4	0.2	100.0
ii. Bills and notes <sup>a</sup>	0	0	0	0	48.1	0	-148.1	-100.0
b. Long-term liabilities	25.9	1.7	3.0	20.5	34.0	10.5	4.5	100.0
i. Loans	36.3	2.4	4.2	11.8	45.3	0	0	100.0
ii. Bonds	0	0	0	0	5.8	36.4	15.7	100.0
c. Equities	0	0	0	75.2	24.8	0	0	100.0
3. Total sources	38.8	4.8	4.2	22.4	15.4	5.8	8.6	100.0
4. Inventory profits	0	17.9	15.4	66.8	0	0	0	100.0

Source: See Table 24.

<sup>a</sup>The signs have been reversed to match the sign of the numerator.

## *Internal and External Financing*

total increase in liabilities, and most of this represented state and local long-term debt.

Distribution is again considerably different for the various types of liabilities. Financial institutions accounted for about one-half of the total increase in short-term liabilities and one-third of the total increase in long-term liabilities, but for a smaller proportion of the net issues of stocks and bonds. Nonfinancial business was responsible for about three-fourths of net issues of equities, two-fifths of bonds, three-tenths of short-term liabilities, but only for about one-eighth of long-term nonmarketable liabilities.<sup>7</sup> Households accounted for well over one-third of the total increase in long-term nonmarketable debt and for one-seventh of that in short-term debt but, of course, did not participate in the issuance of marketable securities. The government was an important factor only in the case of long-term bonds, where it was responsible for about one-half of the total increase in outstandings.

Considerable interest attaches to the distribution of gross and net saving among sectors. Households accounted for one-half of gross saving, nonfinancial business for about one-fifth, and the government for nearly one-fifth including military assets but for only 8 per cent excluding them. Because of divergences in the ratio of net to gross saving, the distribution of net saving is quite different. Here the predominance of households is very marked; nonfinancial business accounted for one-fifth; and the share of the government was zero because the positive net saving of state and local government was offset by the dissaving of the federal government when military assets are included. If the calculation is limited to civilian assets, the government accounted for about 6 per cent of the national total, nonfinancial business for about one-fourth, and nonfarm households still for two-thirds.

### COMPARISON WITH PREWAR PERIOD

The distribution of total financing and its main forms among sectors during the postwar period, which has just been reviewed, does not seem very different from that during two of the three prewar periods used here for comparison. This is the general impression derived from Table 26, which shows the share of each of the seven sectors in total financing (national combined total), in external financing, and in long- and short-term debt financing. Because of some differences in concept

<sup>7</sup> This low percentage is partly due to allocation of some actually long-term liabilities to the short-term category.

# Internal and External Financing

TABLE 26  
DISTRIBUTION OF FINANCING AMONG SECTORS, 1901-58  
(per cent)

	Nonfarm House- holds (1)	Unincor- porated Business (2)	Agricul- ture (3)	Nonfinancial Corporations (4)	Finance (5)	State and Local Govts. (6)	Federal Govt. (7)	Total (8)	Total (billion dollars) (9)
I. TOTAL FINANCING									
1901-12	39.7	4.1	10.2	28.5	11.9	4.3	1.3	100.0	140.4
1923-29	45.2	3.3	4.1	26.5	14.1	6.2	0.5	100.0	324.4
1934-39	33.4	3.5	6.6	14.3	22.8	7.2	12.2	100.0	201.6
1946-58	42.7	4.4	5.0	23.4	16.8	6.4	1.4	100.0	1,935.8 <sup>a</sup>
II. EXTERNAL FINANCING									
1901-12	9.7	4.0	8.9	37.7	32.9	5.1	1.7	100.0	47.4
1923-29	23.7	3.0	-1.8	35.3	39.4	5.9	-5.4	100.0	110.5
1934-39	5.4	-0.4	-0.5	0.8	51.5	0.3	42.7	100.0	86.8
1946-58	19.6	3.9	1.8	26.8	41.1	5.5	1.4	100.0	745.5
III. SHORT-TERM DEBT FINANCING									
1901-12	11.1	7.0	10.2	14.8	53.3	0	3.7	100.0	21.6
1923-29	25.7	1.5	-2.2	9.2	65.8	0	0	100.0	40.1
1934-39	8.2	2.7	0.8	0.6	61.5	-0.8	27.0	100.0	52.6
1946-58	14.6	5.4	2.1	28.0	51.6	0.4	-2.2	100.0	323.3
IV. LONG-TERM DEBT FINANCING									
1901-12	11.7	2.2	10.7	48.1	14.5	12.8	0	100.0	18.7
1923-29	33.2	5.7	-2.3	38.8	23.7	13.6	-12.5	100.0	48.0
1934-39	1.3	-5.6	-2.6	-7.1	38.3	2.2	73.4	100.0	31.2
1946-58	25.9	3.0	1.7	20.5	34.0	10.5	4.5	100.0	381.4

Source: Same as for Table 23.

<sup>a</sup>See footnote c in Table 23.



## *Internal and External Financing*

and in methods of estimation between the postwar and earlier periods, not too much should be read into small differences in the figures.

The sectoral distribution of total financing during the postwar period was fairly similar to that observed in 1901-12 and 1923-29. During these periods, nonfarm households, nonfarm nonfinancial business, financial institutions, and state and local governments maintained reasonably stable shares and were responsible for nine-tenths of the national total of sources of funds.

Changes are more pronounced in the distribution of external financing among the sectors, but few definite long-term trends appear. The share of nonfinancial business declined from 1901-12 to 1946-58. While the decline from 1901-12 to 1923-29 was mainly due to the disappearance of external financing in agriculture in the 1920's, the further shrinkage between 1923-29 and 1946-58 mostly reflects the decline in the share of external financing undertaken by nonfinancial corporations. The share of state and local governments was quite stable; that of the federal government fluctuated erratically, but was small in all three periods. Of all the movements of the share of financial institutions in total external financing, the stability between the 1920's and the postwar period is probably more interesting than the increase between 1901-12 and 1923-29.

No clear trends are visible in the sectoral distribution of short- or long-term debt financing taken separately. Probably the most significant developments are: first, the increase in the share of financial institutions in long-term debt financing, most of which occurred before or during the Great Depression; and, secondly, the increase in the share of nonfinancial corporations in short-term borrowing and the decline in their share of long-term borrowing, the latter mainly at the expense of home mortgages. The share of state and local government in long-term borrowing was approximately the same in all three periods.

### *Differences Among Sectors in the Structure of Sources and Uses of Funds in the Postwar Period*

The character of the capital market is reflected in and determined by the structure of the sources and uses of funds of individual economic units. Although they are too broad and therefore unduly aggregative for many analytical purposes, the seven main sectors dis-

## *Internal and External Financing*

tinguished in this study are the only groups for which complete sources-and-uses-of-funds statements are available for the entire postwar period.<sup>8</sup>

The structure of uses and sources of funds for the postwar period as a whole is shown in Tables 27 and 28 and illustrated in Chart 7 for each of the seven sectors, combining the more numerous uses and sources into four main flows in order to facilitate a first orientation. The presentation in Table 27 is based on gross flows, while Table 28 uses net flows, i.e., deducts capital consumption allowance from both gross capital expenditures as a use of funds and retained earnings as a source of funds.

Both presentations are based on a specific and extreme assumption about the utilization of capital consumption allowances. In Table 27 it is assumed that capital consumption allowances constitute unassigned funds, which may finance any use, the acquisition of financial assets or existing tangible assets, as well as current gross capital expenditures. Table 28, based on net uses, implies the opposite assumption, that capital consumption allowances are first matched against gross capital expenditures, so that only the excess of gross capital expenditures over capital consumption allowances is regarded as a use of funds, or the excess of capital consumption allowances over gross capital expenditures as a source of funds. Actually, the situation generally seems to lie between the two extreme assumptions. Capital consumption allowances as part of the cash throw-off become part of the funds of which the entrepreneur can dispose freely, but expenditures, particularly the so-called replacement expenditures, probably are regarded as having first call on earned capital consumption allowances. For households and governments, however, the gross basis probably corresponds best to the actual facts, since these units are not well aware of the existence of capital consumption allowances or of their role as a source of replacement of worn out durable tangible assets.

The distribution of total funds raised by sectors or by other groups in the economy according to use of funds is important in capital market analysis because certain relationships exist between forms of fund uses and sources and forms of financing, although the link is a flexible

<sup>8</sup> Similar statements are available, or can be approximated, for several groups in the financial and nonfinancial corporate sectors, but are unavailable for the non-farm household, agriculture, unincorporated business, and state and local government sectors, which together account for more than half of all sources and uses of funds.

TABLE 27  
 DISTRIBUTION OF GROSS SOURCES AND USES OF FUNDS, 1946-58  
 (per cent)

Sector	SHARE IN GROSS USES				SHARE IN GROSS SOURCES				
	Gross Capital Formation (1)	Financial Assets			Internal			External	
		Short-Term (2)	Long-Term (3)	Equities (4)	Capital Consumption Allowance (5)	Retained Income (6)	Liabilities	Equities (9)	
		Short-Term (2)	Long-Term (3)	Equities (4)	Capital Consumption Allowance (5)	Retained Income (6)	Short-Term (7)	Long-Term (8)	Equities (9)
1. Nonfarm households	67	12	18	3	42	40	6	12	0
2. Agriculture	93	3	4	0	67	20	7	6	0
3. Nonfarm unincorp. business	83	17	0	0	55	13	19	13	0
4. Nonfinan. corporations	75	20	4	0	39	19	19	16	6
5. Finance	2	28	66	5	1	6	51	39	3
6. State and local governments	86	10	4	4	43	23	1	32	0
7. Federal government, civilian	73	-10	37	0	59	3	-26	63	0
8. Federal government, including military	96	-1	5	0	109	-15	-4	9	0
9. All sectors, civilian	61	16	20	2	37	26	16	19	2
10. All sectors, including military	64	15	19	2	43	22	15	18	2

Source: See Table 24.

TABLE 28  
DISTRIBUTION OF NET SOURCES AND USES OF FUNDS, 1946-58  
(per cent)

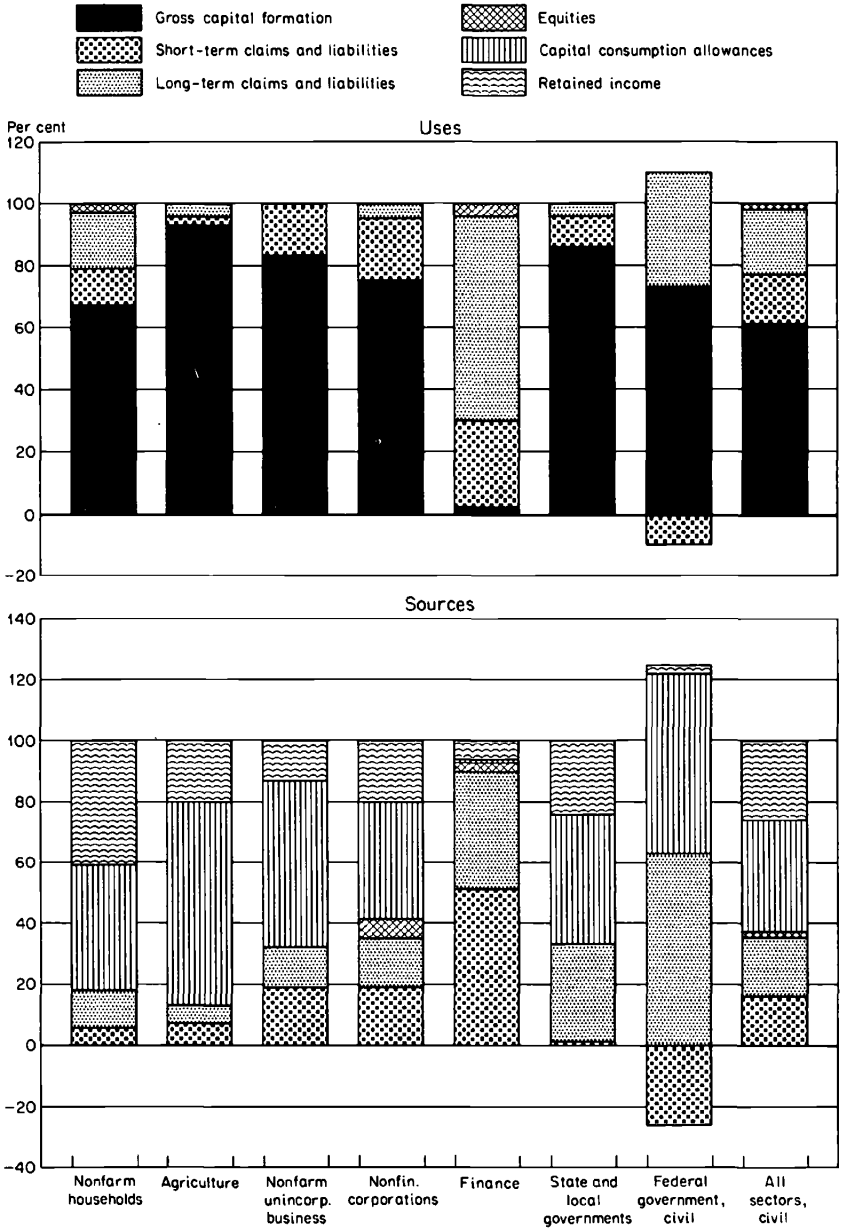
Sector	SHARE IN NET USES				SHARE IN NET SOURCES			
	Net Capital Formation (1)	Financial Assets			Internal (5)	Liabilities		Equities (8)
		Short-Term (2)	Claims			Short-Term (6)	Long-Term (7)	
			Short-Term (3)	Long-Term (4)				
1. Nonfarm households	43	21	30	5	70	10	21	0
2. Agriculture	78	9	13	0	61	20	19	0
3. Nonfarm unincorp. business	63	37	0	0	30	43	28	0
4. Nonfinan. corporations	59	33	7	1	31	31	27	11
5. Finance	1	28	67	5	6	51	40	3
6. State and local governments	75	17	8	0	41	2	57	0
7. Federal government, civilian	33	-23	90	0	7	-63	155	0
8. Federal government, including military <sup>a</sup>	-144	-15	58	0	-160	-41	100	0
9. All sectors, civilian	39	25	32	3	40	26	30	3
10. All sectors, including military	38	26	33	3	39	26	31	3

Source: See Table 24.

<sup>a</sup>The signs have been reversed to match the sign of the numerator.

CHART 7

SOURCES AND USES OF FUNDS BY SECTOR, 1946-58



Source: Table 27.

## *Internal and External Financing*

one. Thus, gross capital expenditures, particularly expenditures on structures and equipment, are often financed internally, or if financed externally are provided by equity securities or long-term liabilities. On the other hand, funds used to finance inventory or receivables are usually provided by short-term borrowing. These relationships are of significance although, of course, permanent increases in the level of inventory and receivables which reflect the growth of the volume of business are often financed internally or by long-term external funds, and although capital expenditures on equipment and on structures are often financed temporarily or even for a fairly long time by short-term borrowing.

Similarly, the distribution of funds by sources is an important factor in the financing of assets also because certain relationships tend to be maintained between internal and external funds and between long- and short-term borrowing, given the industry, size, and age of the unit and other relevant factors.

Compared to the national ratio, the share of gross capital expenditures in total uses of funds is very high for nonfinancial business, particularly for agriculture, unincorporated business, and nonfinancial corporations (see Table 27). The ratio is also high for state and local governments and for the federal government if military assets are included. The only sector with a low ratio is finance; however, the acquisition of intangible assets by financial institutions is sufficient to offset the above average shares of gross capital expenditures by the other sectors in total uses of funds.

Considerable differences among the sectors are also evident in the distribution of financial uses of funds between claims and equities and between short- and long-term claims. Equities absorb a part of financial uses only in the households and financial institution sectors. Among claims, there are many more long- than short-term claims for households, the federal government, and financial institutions. The opposite relation prevails for nonfinancial corporations, mainly because of the large increase in trade accounts receivable during the postwar period.

The distribution of sources of funds is possibly more directly relevant to the structure of the capital market. While internal funds provide around two-thirds of all gross funds for all sectors combined, the share is much higher for nonfarm households and agriculture (see Table 27). Finance is again the only sector for which internal funds

### *Internal and External Financing*

are negligible in comparison to external funds, which reflects the function of financial institutions as intermediaries.

There are great differences in the distribution of internal funds between capital consumption allowances and internal saving, a relation determined primarily by the ratio of gross saving to assets, the share of depreciable in total assets, and the length of life and age distribution of depreciable assets. For all sectors together, capital consumption allowances provided two-thirds and net saving provided one-third of total internal funds. The ratio was similar for nonfinancial corporations; for nonfarm households, the two sources were of the same size. At the other extreme, capital consumption allowances accounted for most internal funds for unincorporated business and the federal government, indicating the low level or absence of net saving.

Equities can be a source of funds only for the business sectors. Even here their share is generally small. For nonfinancial corporations—the largest business sector—equities accounted for only 6 per cent of total gross funds and for one-seventh of external funds. Short- and long-term liabilities were of about equal importance as sources of funds for all sectors together. Short-term liabilities predominate, however, in the business sectors, while long-term liabilities lead in the household and government sectors, reflecting the character of their capital expenditures.

On a net basis (Table 28) where capital consumption allowances are treated as an offset against both gross capital expenditures and internal financing, the levels of the ratios are quite different but the differences among sectors are similar. Nonfarm households and agriculture show a share of internal net financing considerably above the average, while the share of state and local governments is average and the share of financial institutions is far below average (Table 28). A comparison of the shares of gross and net internal funds of the federal government shows that they differ substantially.

The differences between the net and gross basis are pronounced in the distribution between internal and external finance. For all sectors combined, about two-fifths of all net sources are internal (net saving), compared to over three-fifths of gross sources. However, the share of retained income for households on a net basis is much larger than on a gross basis, and nonfarm business has a ratio of retained income on a net basis larger than that on a gross basis. This difference is partly explained by the ratio of capital consumption allowances to gross internal financing. In the case of households, it reflects a lower

## *Internal and External Financing*

average length of life of their gross capital expenditures because of the high share of short-lived consumer durables.

### *Structural Changes in Sources and Uses of Funds by Main Sectors During the Postwar Period*

These changes, which were studied in the first part of this chapter by comparing differences among the three postwar cycles, ignored differences among sectors. These will now be discussed on the basis of Tables 29 to 35, which show annual averages of absolute and percentage figures of the main uses and sources of funds for the three postwar cycles for each sector. A more detailed breakdown, using all available categories of assets and liabilities, will be found in Volume II of *National Balance Sheet*.<sup>9</sup> No discussion is included here of the differences among subsectors of the financial sector, for which information is also available in the same source.

#### NONFARM HOUSEHOLDS

Both uses and sources of funds during each of the three postwar cycles show only small variations from their shares for the whole period for the main divisions, i.e., gross capital expenditures and acquisition of financial assets among uses of funds, and internal and external financing among sources of funds. The absolute figures, of course, increase sharply, whereas in proportion to personal disposable income, the increase is much more modest (Table 29).<sup>10</sup>

Within financial assets, the share of long-term claims declines from the first to the second cycle and from the second to the third, and the share of short-term claims increases correspondingly. Equities account for one-tenth in the first cycle, one-eleventh in the second, and one-twelfth in the third cycle of total financial asset acquisitions.

The share of internal financing (gross saving) varied very little in all three cycles. A slow decline is, however, observable in the share of net saving at the expense of that of capital consumption allowances, the calculation of which is to some extent arbitrary.

Within external financing, the share of short-term liabilities declined slightly at the expense of long-term debt (home mortgage)

<sup>9</sup> Tables in Section VII.

<sup>10</sup> For personal disposable income, see *U.S. Income and Output*, Supplement to the *Survey of Current Business*, Washington, 1958, pp. 144-145; and *Survey of Current Business*, July 1960, p. 10.



Internal and External Financing

TABLE 29  
SOURCES AND USES OF FUNDS OF NONFARM HOUSEHOLDS, 1946-58

	Annual Averages (billion dollars)				Shares (per cent)			
	1946-49 <sup>a</sup> (1)	1949-54 <sup>a</sup> (2)	1954-58 <sup>a</sup> (3)	1946-58 (4)	1946-49 (5)	1949-54 (6)	1954-58 (7)	1946-58 (8)
<b>I. Uses</b>								
1. Gross capital expenditures	27.84	42.15	55.78	42.64	67.2	69.0	66.7	67.1
2. Acquisition of financial assets	13.58	18.91	27.89	20.92	32.8	31.0	33.3	32.9
a. Short-term claims	3.70	6.85	11.11	7.94	8.9	11.2	13.3	12.5
i. Loans	2.95	7.02	10.65	7.74	7.1	11.5	12.7	12.2
ii. Bills and notes	0.75	-0.17	0.46	0.20	1.8	-0.3	0.5	0.3
b. Long-term claims	8.46	10.37	14.61	11.19	20.4	17.0	17.5	17.6
i. Loans	8.72	9.85	12.19	10.35	21.1	16.1	14.6	16.3
ii. Bonds	-0.26	0.52	2.42	0.84	-0.6	0.9	2.9	1.3
c. Equities	1.42	1.70	2.17	1.79	3.4	2.8	2.6	2.8
3. Total uses	41.42	61.06	83.67	63.56	100.0	100.0	100.0	100.0
<b>II. Sources</b>								
1. Gross saving	33.92	50.07	68.74	52.34	81.9	82.0	82.2	82.4
a. Depreciation	16.52	25.69	35.46	26.63	39.9	42.1	42.4	41.9
b. Net saving	17.40	24.38	33.28	25.71	42.0	39.9	39.8	40.5
2. External sources	7.51	10.99	14.93	11.22	18.0	18.0	17.8	17.7
a. Short-term loans	2.73	3.96	4.45	3.63	6.6	6.5	5.3	5.7
b. Long-term loans	4.78	7.05	10.48	7.59	11.5	11.5	12.5	11.9
3. Total sources	41.42	61.06	83.67	63.56	100.0	100.0	100.0	100.0

Source: National Balance Sheet, Vol. II.

<sup>a</sup>Cycle averages.

Section I

Line 1: Table VII-1, line I-7.

Line 2: Table VII-1, line II-21.

Line 2a: Sum of lines 2a1 and 2a1i.

Line 2a1: Table VII-1, sum of lines II-1, 2, 10, and 20.

Line 2a1i: Table VII-1, line II-13a.

Line 2b: Sum of lines 2b1 and 2b1i.

Line 2b1: Table VII-1, sum of lines II-3, 4, 5, 11, and 12.

Line 2b1i: Table VII-1, sum of lines II-13b, 13c, 14, and 15.

Line 2c: Table VII-1, sum of lines II-16 and 17.

Line 3: Table VII-1, line V.

Section II

Line 1: Table VII-1, line IV-3.

Line 1a: Table VIII-a-7, line 1, minus Table VIII-a-7b, line 1.

Line 1b: Lines 1 minus 1a.

Line 2: Table VII-1, line III-14.

Line 2a: Table VII-1, sum of lines III-6, 7, 8, 9, and 10.

Line 2b: Table VII-1, line III-11.

Line 3: Table VII-1, line V.

## *Internal and External Financing*

financing between the second and the third cycles. As a result, 70 per cent of total external financing was in long-term form in the third cycle compared to 64 per cent in the first.

### AGRICULTURE

Since the financial assets attributed to farmers are limited to demand and savings deposits, savings bonds, insurance and pension reserves, gross capital expenditures accounted for almost all uses of funds in all three cycles (Table 30). Within gross capital expenditures, inventories accounted for about 15 per cent in the first and third cycles, but were slightly negative in the second. This difference reflects partly the price movements of agricultural products, in particular the sharp price rise during the first cycle, and partly quantity movements as in the third cycle.

Among sources, internal financing was equally predominant. External financing, however, showed slow increases from the first to the second cycle and from the second to the third, as a result exclusively of an increase in the share of borrowing on mortgages. The offsetting decline in short-term financing affected primarily nonbank borrowing.

### UNINCORPORATED BUSINESS

The notorious unreliability of the financial statistics of unincorporated nonfarm business imposes the utmost caution in the interpretation of the figures. As they stand, they show considerable variations in the structure of uses and sources of funds among the three postwar cycles (Table 31).

Among uses, the main feature is the high share of gross capital expenditures. During the first cycle a substantial proportion of these expenditures was allocated to inventories, reflecting primarily the sharp rise in prices after the war. This proportion was much smaller during the rest of the postwar period. As capital expenditures amounted to over four-fifths of the uses of funds, the accumulation of financial assets was relatively small.

Among sources, the share of internal financing increased from the first to the second cycle and declined from the second to the third. The increase is mainly accounted for by the rise in estimated capital consumption allowances. The decline is a result of the relatively high share of net saving in the first cycle and its small share during the third cycle. In view of the statistical limitations of the estimates, it is difficult to say whether this actually represents a sharp decrease in

# Internal and External Financing

TABLE 30  
SOURCES AND USES OF FUNDS OF AGRICULTURE, 1946-58

	Annual Averages (billion dollars)				Shares (per cent)			
	1946-49 <sup>a</sup> (1)	1949-54 <sup>a</sup> (2)	1954-58 <sup>a</sup> (3)	1946-58 (4)	1946-49 (5)	1949-54 (6)	1954-58 (7)	1946-58 (8)
<b>I. Uses</b>								
1. Gross capital expenditures	6.92	6.84	7.55	7.31	93.1	93.6	92.6	92.6
2. Acquisition of financial assets	0.51	0.47	0.60	0.57	6.9	6.4	7.4	7.2
a. Short-term loans	0.06	0.23	0.25	0.24	0.8	3.1	3.1	3.0
b. Long-term assets	0.45	0.24	0.35	0.33	6.1	3.3	4.3	4.2
i. Loans	0.29	0.20	0.27	0.25	3.9	2.7	3.3	3.2
ii. Bonds	0.16	0.04	0.08	0.08	2.2	0.5	1.0	1.0
3. Total uses	7.43	7.31	8.15	7.88	100.0	100.0	100.0	100.0
<b>II. Sources</b>								
1. Gross saving	6.59	6.38	6.94	6.86	88.7	87.3	85.2	86.9
a. Depreciation	3.43	5.36	6.63	5.28	46.2	73.3	81.3	66.9
b. Net saving	3.16	1.02	0.31	1.58	42.5	14.0	3.8	20.0
2. External sources	0.84	0.93	1.21	1.02	11.3	12.7	14.8	12.9
a. Short-term loans	0.64	0.41	0.50	0.52	8.6	5.6	6.1	6.6
b. Long-term loans	0.20	0.52	0.71	0.50	2.7	7.1	8.7	6.3
3. Total sources	7.43	7.31	8.15	7.88	100.0	100.0	100.0	100.0
4. Inventory profits	1.38	-0.78	0.73	0.50	18.6	-10.7	9.0	6.3

Sources: National Balance Sheet, Vol. II.

**Section I**

- Line 1: Table VII-3, line I-7.
- Line 2: Table VII-3, line II-21.
- Line 2a: Table VII-3, sum of lines II-1, 2, and 20.
- Line 2b1: Sum of lines 2b1 and 2b1i.
- Line 2b1i: Table VII-3, sum of lines II-3 and II-5.
- Line 2b1ii: Table VII-3, line II-13.
- Line 3: Table VII-3, line V.

**Section II**

- Line 1: Table VII-3, line IV-3.
- Line 1a: Table VIII-a-7, line 3, minus Table VIII-a-7b, line 3.
- Line 1b: Lines 1 minus 1a.
- Line 2: Table VII-3, line III-14.
- Line 2a: Table VII-3, sum of lines III-6, 7, 9, and 10.
- Line 2b: Table VII-3, line III-11.
- Line 3: Table VII-3, line V.
- Line 4: Table VIII-a-6b, line 3, minus Table VIII-a-6d, line 3.

<sup>a</sup>Cycle averages.

# Internal and External Financing

TABLE 31  
SOURCES AND USES OF FUNDS OF NONFARM UNINCORPORATED BUSINESS, 1946-58

	Annual Averages (billion dollars)				Shares (per cent)			
	1946-49 <sup>a</sup> (1)	1949-54 <sup>a</sup> (2)	1954-58 <sup>a</sup> (3)	1946-58 (4)	1946-49 (5)	1949-54 (6)	1954-58 (7)	1946-58 (8)
<b>I. Uses</b>								
1. Gross capital expenditures	4.70	5.32	7.22	5.78	83.9	81.3	85.2	83.0
2. Acquisition of financial assets	0.89	1.22	1.24	1.18	15.9	18.7	14.6	17.0
a. Short-term loans	0.89	1.22	1.24	1.18	15.9	18.7	14.6	17.0
3. Total uses	5.59	6.54	8.47	6.96	100.0	100.0	100.0	100.0
<b>II. Sources</b>								
1. Gross saving	3.78	4.82	5.46	4.74	67.5	73.7	64.4	68.1
a. Depreciation	2.25	3.65	5.16	3.80	40.2	55.8	60.9	54.6
b. Net saving	1.53	1.17	0.30	0.94	27.3	17.9	3.5	13.5
2. External sources	1.81	1.72	3.01	2.22	32.3	26.3	35.6	31.9
a. Short-term loans	1.10	0.99	1.86	1.34	19.6	15.1	22.0	19.3
b. Long-term loans	0.71	0.73	1.15	0.88	12.7	11.2	13.6	12.6
3. Total sources	5.59	6.54	8.47	6.96	100.0	100.0	100.0	100.0
4. Inventory profits	0.84	0.23	0.26	0.43	15.0	3.5	3.1	6.2

<sup>a</sup>Cycle averages.

Source: National Balance Sheet, Vol. II.

**Section I**

Line 1: Table VII-2, line 1-7.  
 Line 2: Table VII-2, line II-21.  
 Line 2a: Table VII-2, sum of lines II-1, 6, 7.  
 Line 3: Table VII-2, line V.

**Section II**

Line 1: Table VII-2, line IV-3.  
 Line 1a: Table VIII-a-7, line 2, minus Table VIII-a-7b, line 2.  
 Line 2: Table VII-2, line V.  
 Line 2b: Table VII-2, line III-11, and Table VIII-c-9b, line 2.  
 Line 3: Table VII-2, line V.  
 Line 4: Tables VIII-a-6b, line 2, minus Table VIII-a-6d, line 2.

**Section III**

Line 1b: Lines II-1 minus II-1a.  
 Line 2: Table VII-2, line III-14.  
 Line 2a: Table VII-2, sum of lines III-7 and III-10, and Table VIII-c-9a, line 2.  
 Line 2b: Table VII-2, line III-11, and Table VIII-c-9b, line 2.  
 Line 3: Table VII-2, line V.  
 Line 4: Tables VIII-a-6b, line 2, minus Table VIII-a-6d, line 2.

## *Internal and External Financing*

the net investment in unincorporated business by partners and proprietors.

The share of debt financing was lower in the second cycle than in the first and third. In debt financing, the importance of bank loans declined from the first to the second cycle, reflecting a reduction of inventory investment. During the third cycle the relative share of bank loans was higher than during the second cycle, but in proportion to total debt it was smaller than in the first cycle. Other short-term financing, mainly in trade payables, showed an upward tendency in absolute and relative terms. No definite trend is visible in the share of long-term (mortgage) financing, which was around one-eighth of total sources in all three cycles.

### NONFINANCIAL CORPORATIONS

In the case of nonfinancial corporations, the structure of uses of funds is similar for Cycles II and III but different for Cycle I (Table 32).

The structure of sources of funds is considerably affected by the substantial inventory profits registered in the first cycle as a result of the sharp rise of prices after the war. If inventory profits are included, the share of internal financing in total sources is close to three-fifths of total sources in all three cycles. The share of net saving is considerably higher in the first cycle than in the second and third. On the other hand, if inventory profits are excluded, the share of net saving is the same during the first and second cycles, but varies by 4 percentage points between the second and third cycles.<sup>11</sup>

External funds provided an increasing share of total sources of funds during the postwar period. There is some tendency for the share of short-term financing to increase compared to long-term external financing which did not show any trend. In the distribution of the latter between mortgages and bonds, the share of bonds declined while the share of mortgages rose. The share of equity financing was equally low in all three cycles.

For an appropriate understanding of the changes in the structure of sources and uses of funds of nonfinancial corporations, it would be necessary to break down this broad group into at least three sub-groups—manufacturing and mining, public utilities, and other non-

<sup>11</sup> Inventory profits may be excluded from net saving because they may be regarded as equivalent to capital consumption allowances on a replacement cost basis. Since inventory profits are realized as part of cash inflow, it is not advisable to exclude them from total internal financing or from aggregate over-all sources of funds.

Internal and External Financing

TABLE 32  
SOURCES AND USES OF FUNDS OF NONFINANCIAL CORPORATIONS, 1946-58

	Annual Averages (billion dollars)				Shares (per cent)			
	1946-49 <sup>a</sup> (1)	1949-54 <sup>a</sup> (2)	1954-58 <sup>a</sup> (3)	1946-58 (4)	1946-49 (5)	1949-54 (6)	1954-58 (7)	1946-58 (8)
I. Uses								
1. Gross capital expenditures	22.19	26.34	34.19	27.64	80.7	74.9	72.3	75.3
2. Acquisition of financial assets	5.32	8.82	13.13	9.07	19.3	25.1	27.7	24.7
a. Short-term assets	4.43	7.11	10.41	7.32	16.1	20.2	22.0	19.9
i. Loans	4.78	6.17	10.75	7.31	17.4	17.5	22.7	19.9
ii. Bills and notes	-0.35	0.94	-0.34	0.01	-1.3	2.7	-0.7	0
b. Long-term assets	0.80	1.58	2.52	1.62	2.9	4.5	5.3	4.4
i. Loans	1.06	1.36	2.30	1.57	3.9	3.9	4.9	4.3
ii. Bonds	-0.26	0.22	0.22	0.05	-0.9	0.6	0.5	0.1
c. Equities	0.09	0.13	0.20	0.15	0.3	0.4	0.4	0.4
3. Total uses	27.51	35.16	47.32	36.71	100.0	100.0	100.0	100.0
II. Sources								
1. Gross saving	17.04	20.68	26.87	21.36	61.9	58.8	56.8	58.2
a. Depreciation	9.27	13.70	19.02	14.35	33.7	39.0	40.2	39.1
b. Net saving	7.77	6.98	7.85	7.01	28.2	19.9	16.6	19.1
2. External sources	10.48	14.48	20.45	15.35	38.1	41.2	43.2	41.8
a. Short-term loans	3.82	7.06	9.77	6.97	13.9	20.1	20.6	19.0
b. Long-term liabilities	4.99	5.10	7.78	6.01	18.1	14.5	16.4	16.4
i. Loans	2.00	1.86	3.40	2.47	7.3	5.3	7.2	6.7
ii. Bonds	2.99	3.24	4.38	3.54	10.9	9.2	9.3	9.6
c. Equities	1.67	2.33	2.90	2.36	6.1	6.6	6.1	6.4
3. Total sources	27.51	35.16	47.32	36.71	100.0	100.0	100.0	100.0
4. Inventory profits	3.25	1.08	1.58	1.87	11.8	3.1	3.3	5.1

<sup>a</sup>Cycle averages.

## Internal and External Financing

### NOTES TO TABLE 32

Source: National Balance Sheet, Vol. II.

#### Section I

Line 1: Table VII-4, line I-7.  
Line 2: Table VII-4, line II-21.  
Line 2a: Sum of lines 2ai and 2aif.  
Line 2ai: Table VII-4, sum of lines II-1, 2, 6, 7, and Table VIII-b-20, line 4 minus line 9.  
Line 2aif: Table VII-4, line II-13a, plus first differences of Table III-5ℓ-a, cols. 4, 8, and 11.  
Line 2b: Sum of lines 2bi and 2bif.  
Line 2bi: Table VIII-b-20, line 9.  
Line 2bif: Table VII-4, sum of lines II-13b, 13c, 14, 15, minus first differences of Table III-5ℓ-a, cols. 4, 8, and 11.  
Line 2c: Table VII-4, sum of lines II-16 and II-17.  
Line 3: Table VII-4, line V.

#### Section II

Line 1: Table VII-4, line IV-3.  
Line 1a: Table VIII-a-7, line 4, minus Table VIII-a-7b, line 4.  
Line 1b: Lines 1 minus 1a.  
Line 2: Table VII-4, lines III-14, IV-1, and IV-2.  
Line 2ai: Table VII-4, sum of lines III-7, 8, 10, and 13, and Table VIII-c-9a, line 4.  
Line 2b: Sum of lines 2bi and 2bif.  
Line 2bi: Table VII-4, line III-11, and Table VIII-c-9b, line 4.  
Line 2bif: Table VII-4, line III-12.  
Line 2c: Table VII-4, sum of lines IV-1 and IV-2.  
Line 3: Table VII-4, line V.  
Line 4: Table VIII-a-6b, line 4, minus Table VIII-a-6d, line 4.

financial business. The basic tables used in the report do not provide such a breakdown of balance sheets or sources-and-uses-of-funds statements. Such statements are, however, available for half a dozen groups within nonfinancial corporations in a separate report by Meiselman and Shapiro,<sup>12</sup> which forms part of the National Bureau's Postwar Capital Market Study.

From these figures, as well as from some estimates of the Department of Commerce prepared for the years 1947-56,<sup>13</sup> it is known that considerable differences exist in the structure of sources and uses of funds among main industrial groups, and that changes have also occurred from one cycle to another. Thus gross capital expenditures exceed nine-tenths of total uses of funds for public utilities, transportation, and railroad corporations, and three-fifths for manufacturing and mining, but account for only less than two-fifths of all uses in trade. Among sources of funds, internal financing contributes two-thirds for corporations in manufacturing, mining, and transportation other than

<sup>12</sup> *The Measurement of Corporate Sources and Uses of Funds*, Technical Paper 18, New York, NBER, 1964.

<sup>13</sup> See *Survey of Current Business*, September 1957, pp. 10 and 11. The Department of Commerce estimates cover a period longer than the Meiselman-Shapiro study, and therefore they were used here.

## *Internal and External Financing*

railroads, about seven-tenths for trade, and four-fifths for railroads, but as little as three-tenths for public utilities. Long-term debt financing accounts for nearly half of total external financing in manufacturing and mining and in public utilities, for about half in transportation corporations other than railroads, for seven-tenths in railroads, but only for one-sixth in trade corporations. Stock financing is responsible for more than one-third of external financing for public utilities, while its contribution to external financing of corporations in manufacturing and mining, transportation, and trade was small.

### STATE AND LOCAL GOVERNMENTS

At least two definite trends are observable in the uses of funds by state and local governments: an increase in the share of gross capital expenditures from the first cycle to the third and a decline in the share of funds used to acquire short-term claims (Table 33). These trends reflect the increase in financial requirements as large-scale construction programs for state and local governments got under way after the war. It may also be worth noting that the share of funds used to acquire bonds for various funds of state and local governments (excluding pension and retirement funds) increased between the first and second cycles and decreased again in the second and third.

Changes in the structure of the sources of funds were less marked. The share of internal financing rose slightly between the first and second cycles and between the second and third, and the increase is more pronounced for net saving. In fact, the share of net saving in total sources of funds was considerably higher in the second and third cycles than in the first. In relation to the total income of state and local governments, net saving represents about 10 per cent of income in the second and third cycles and about 1 per cent in the first.<sup>14</sup>

### FEDERAL GOVERNMENT

In the case of the federal government, differences in the structure of uses and sources of funds between the first cycle, on the one hand, and the second and third, on the other, are more pronounced than in most other sectors (Table 34). These differences are the result of revenue surpluses in the early postwar years used for debt reduction, together with a reduction in the Treasury's bank balance, and of the

<sup>14</sup> *U.S. Income and Output, 1958*, p. 165; and *Survey of Current Business*, July 1960, p. 19.



Internal and External Financing

TABLE 33  
SOURCES AND USES OF FUNDS OF STATE AND LOCAL GOVERNMENTS, 1946-58

	Annual Averages (billion dollars)				Shares (per cent)			
	1946-49 <sup>a</sup> (1)	1949-54 <sup>a</sup> (2)	1954-58 <sup>a</sup> (3)	1946-58 (4)	1946-49 (5)	1949-54 (6)	1954-58 (7)	1946-58 (8)
<b>I. Uses</b>								
1. Gross capital expenditures	3.69	7.61	12.05	8.15	76.9	81.7	90.1	85.8
2. Acquisition of financial assets	1.11	1.70	1.32	1.36	23.1	18.3	9.9	14.3
a. Short-term assets	1.05	1.05	0.84	0.94	21.9	11.3	6.3	9.8
i. Loans	0.78	0.64	0.50	0.66	16.2	6.9	3.7	6.9
ii. Bills and notes	0.27	0.41	0.34	0.28	5.6	4.4	2.5	2.9
b. Long-term assets	0.06	0.65	0.48	0.42	1.2	7.0	3.6	4.5
i. Loans	0.02	0.09	0.21	0.12	0.4	1.0	1.6	1.3
ii. Bonds	0.04	0.56	0.27	0.30	0.8	6.0	2.0	3.2
3. Total uses	4.80	9.31	13.37	9.50	100.0	100.0	100.0	100.0
<b>II. Sources</b>								
1. Gross saving	3.08	6.12	9.08	6.32	64.2	65.7	67.9	66.5
a. Depreciation	2.93	3.87	5.30	4.12	61.0	41.6	39.6	43.4
b. Net saving	0.15	2.25	3.78	2.20	3.2	24.1	28.3	23.1
2. External sources	1.72	3.19	4.29	3.18	35.8	34.3	32.1	33.5
a. Short-term loans	0.14	0.08	0.11	0.11	2.9	0.9	0.8	1.2
b. Long-term bonds	1.58	3.11	4.18	3.07	32.9	33.4	31.2	32.3
3. Total sources	4.80	9.31	13.37	9.50	100.0	100.0	100.0	100.0

Source: National Balance Sheet, Vol. II.

<sup>a</sup>Cycle averages.

Section I

- Line 1: Table VII-6, line 1-7.
  - Line 2: Table VII-6, line II-21.
  - Line 2a: Sum of lines 2ai and 2aii.
  - Line 2ai: Table VII-6, sum of lines II-1 and II-2.
  - Line 2aai: Table VII-6, line II-13a.
  - Line 2b: Sum of lines 2bi and 2bii.
  - Line 2bi: Table VII-6, line II-11.
  - Line 2bii: Table VII-6, sum of lines II-13c, 14, and 15.
  - Line 3: Table VII-6, line V.
- Section II
- Line 1: Tables VIII-a-7, line 6, minus Table VIII-a-7b, line 6.
  - Line 1a: Lines II-1 minus II-1a.
  - Line 2: Table VII-6, line III-14.
  - Line 2a: Table VII-6, line III-7.
  - Line 2b: Table VII-6, line III-12.
  - Line 3: Table VII-6, line V.

# Internal and External Financing

TABLE 34  
SOURCES AND USES OF FUNDS OF TOTAL FEDERAL GOVERNMENT, 1946-58

	Annual Averages (billion dollars)				Shares (per cent)			
	1946-49 <sup>a</sup>		1954-58 <sup>a</sup>		1946-49	1949-54	1954-58	1946-58
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<b>I. Uses</b>								
1. Gross capital expenditures	3.68	15.22	18.98	13.50	105.7	83.8	95.5	95.9
2. Acquisition of financial assets	-0.21	2.95	0.90	0.57	-6.0	16.2	4.5	4.1
a. Short-term loans	-1.36	2.49	-0.20	-0.20	-39.1	13.7	-0.4	-1.4
b. Long-term assets	1.15	0.47	0.98	0.77	33.1	2.6	4.9	5.5
i. Loans	0.99	0.47	0.74	0.63	28.4	2.6	3.7	4.5
ii. Bonds	0.16	0	0.24	0.14	4.6	0	1.2	1.0
3. Total uses	3.48	18.17	19.88	14.07	100.0	100.0	100.0	100.0
<b>II. Sources</b>								
1. Gross saving	8.16	12.90	18.83	13.28	234.5	71.0	94.7	94.4
a. Depreciation	15.68	13.02	17.81	15.39	450.6	71.7	89.6	109.4
b. Net saving	-7.52	-0.12	1.02	-2.11	-216.1	-0.7	5.1	-15.0
2. External sources	-4.69	5.28	1.05	0.79	-134.8	29.1	5.3	5.6
a. Short-term liabilities	-3.98	3.64	-0.63	-0.53	-114.4	20.0	-3.2	-3.8
i. Loans	-0.18	0.73	-0.45	0.06	-5.2	4.0	-2.3	0.4
ii. Bills and notes	-3.80	2.91	-0.18	-0.59	-109.2	16.0	-0.9	-4.2
b. Long-term bonds	-0.70	1.63	1.68	1.32	-20.1	9.0	8.5	9.4
3. Total sources	3.48	18.17	19.88	14.07	100.0	100.0	100.0	100.0
<b>BREAKDOWN OF SELECTED ITEMS INTO CIVIL AND MILITARY</b>								
Gross capital expenditures								
Civil	1.02	1.99	1.32	1.51				
Military	2.66	13.23	17.66	11.99				
Gross saving								
Civil	5.50	-0.34	1.17	1.30				
Military	2.66	13.24	17.66	11.98				
Depreciation								
Civil	1.41	1.14	1.22	1.23				
Military	14.27	11.88	16.59	14.16				
Net saving								
Civil	4.09	-1.48	-0.05	0.07				
Military	-11.61	1.36	1.07	-2.18				

## Internal and External Financing

NOTES TO TABLE 34

Source: National Balance Sheet, Vol. II.

### Section I

Line 1: Table VII-7-1, line I-7.

Line 2: Table VII-7-1, line II-21.

Line 2a: Table VII-7-1, sum of lines II-1, 2, 7, 10, 20, and Table VIII-b-20, line 7 minus line 10.

Line 2b: Sum of lines 2b1 and 2b1i.

Line 2b1: Table VII-7-1, sum of lines II-11, 12, and Table VIII-b-20, line 10.

Line 2b1i: Table VII-7-1, sum of lines II-13c and II-14.

Line 3: Table VII-7-1, line V.

### Section II

Line 1: Table VII-7-1, line IV-3.

Line 1a: Table VIII-a-7, lines 7 and 9, minus Table VIII-a-7b, lines 7 and 9.

Line 1b: Lines 1 minus 1a.

Line 2: Table VII-7-1, line III-14.

Line 2a: Sum of lines 2a1 and 2a1i.

Line 2a1: Table VII-7-1, sum of lines III-1, 2, 7, 9, and 13.

Line 2a1i: Table VIII-b-13a, line 10.

Line 2b: Sum of Table VIII-b-13b, line 9, Table VIII-b-13c, line 11, and Table VIII-c-12, line 7b.

Line 3: Table VII-7-1, line V.

<sup>a</sup>Cycle averages.

sharp increase in expenditures, primarily for military purposes, between the first and second cycles and their continuation at a high level in the third. The picture will therefore be different depending on whether outlay on durable military assets is treated as current or as capital expenditures. Thus, net saving is substantial in the first cycle and negative in the second and third if military expenditures are classified entirely as current outlay. If they are capitalized, which of course implies the inclusion of capital consumption allowances on the entire stock of military durables among current expenditures, net saving is negative to a very substantial amount in the first cycle because of the heavy depreciation allowances on the stock acquired during the war; while net saving is positive during the third cycle.

### FINANCIAL INSTITUTIONS

The over-all picture of sources and uses of funds of all financial institutions taken together, as shown in Table 35, is only of limited interest since the acquisition of financial assets completely dominates uses and the incurrence of liabilities overshadows all other sources. Among sources, however, a decrease in the share of internal funds from the first to the second and third cycles is worth noting. On the other hand, the share of equity funds in total sources increased, mainly as a result of the increasing importance of investment companies which are predominantly financed through the issuance of their own stock.

Significant structural changes thus occur within the acquisition of

Internal and External Financing

TABLE 35  
SOURCES AND USES OF FUNDS OF FINANCIAL INSTITUTIONS, 1946-58

	Annual Averages (billion dollars)				Shares (per cent)			
	1946-49 <sup>a</sup> (1)	1949-54 <sup>a</sup> (2)	1954-58 <sup>a</sup> (3)	1946-58 (4)	1946-49 (5)	1949-54 (6)	1954-58 (7)	1946-58 (8)
<b>I. Uses</b>								
1. Gross capital expenditures	0.34	0.40	0.52	0.42	2.1	1.5	1.6	1.7
2. Acquisition of financial assets	15.50	26.10	31.82	24.89	97.9	98.5	98.4	98.3
a. Short-term assets	4.43	9.20	8.87	6.97	28.0	34.7	27.4	27.5
i. Loans	8.61	7.78	9.77	8.15	54.4	29.4	30.2	32.2
ii. Bills and notes	-4.18	1.42	-0.90	-1.18	-26.4	5.4	-2.8	-4.7
b. Long-term assets	10.55	15.83	21.07	16.68	66.6	59.8	65.2	65.9
i. Loans	6.54	8.80	13.20	9.71	41.3	33.2	40.8	38.4
ii. Bonds	4.01	7.03	7.87	6.97	25.3	26.5	24.3	27.5
c. Equities	0.52	1.08	1.87	1.23	3.3	4.1	5.8	4.9
3. Total uses	15.84	26.49	32.34	25.30	100.0	100.0	100.0	100.0
<b>II. Sources</b>								
1. Gross saving	1.52	1.60	1.97	1.73	9.6	6.0	6.1	6.8
a. Depreciation	0.25	0.26	0.36	0.29	1.6	1.0	1.1	1.1
b. Net saving	1.27	1.34	1.61	1.44	8.0	5.0	5.0	5.7
2. External sources	14.32	24.90	30.36	23.58	90.4	94.0	93.9	93.2
a. Short-term liabilities	5.88	14.50	17.26	12.83	37.1	54.7	53.4	50.7
i. Loans	5.73	14.26	17.07	12.64	36.2	53.8	52.8	50.0
ii. Bills and notes	0.15	0.24	0.19	0.19	0.9	0.9	0.6	0.8
b. Long-term liabilities	8.18	9.79	11.79	9.97	51.7	37.0	36.5	39.4
i. Loans	7.91	9.33	10.97	9.48	50.0	35.2	33.9	37.5
ii. Bonds	0.27	0.46	0.82	0.49	1.7	1.7	2.5	1.9
c. Equities	0.26	0.60	1.32	0.77	1.6	2.3	4.1	3.0
3. Total sources	15.84	26.49	32.34	25.30	100.0	100.0	100.0	100.0

## Internal and External Financing

### NOTES TO TABLE 35

Source: National Balance Sheet, Vol. II.

#### Section I

- Line 1: Table VII-5, line I-7.  
Line 2: Table VII-5, line II-21.  
Line 2a: Sum of lines 2ai and 2aii.  
Line 2ai: Table VII-5, sum of lines II-1, 2, 6, 7, 8, 10, 20, and 9, minus Table VIII-c-9b, line 8.  
Line 2aii: Table VII-5, line 13a, plus the sum of the first differences of Table III-5ℓ-a, cols. 3, 7, and 10.  
Line 2b: Sum of lines 2bi and 2bii.  
Line 2bi: Table VII-5, sum of lines II-11, 12, and Table VIII-c-9b, line 8.  
Line 2bii: Table VII-5, sum of lines II-13b, 13c, 14, and 15, minus the first differences of Table III-5ℓ-a, cols. 3, 7, and 10.  
Line 2c: Table VII-5, sum of lines II-16 and II-17.  
Line 3: Table VII-5, line V.

#### Section II

- Line 1: Table VII-5, line IV-3.  
Line 1a: Table VIII-a-7, line 5, minus Table VIII-a-7b, line 5.  
Line 1b: Lines 1 minus 1a.  
Line 2: Table VII-5, lines III-14, IV-1, and IV-2.  
Line 2a: Sum of lines 2ai and 2aii.  
Line 2ai: Table VII-5, lines III-1, 2, 7, 8, 9, 10, and 13.  
Line 2aii: Table III-5ℓ-a, col. 1 (first differences).  
Line 2b: Sum of lines 2bi and 2bii.  
Line 2bi: Table VII-5, sum of lines III-3, 4, and 5.  
Line 2bii: Table VII-5, line III-12, minus the first differences of Table III-5ℓ-a, col. 1.  
Line 2c: Table VII-5, lines IV-1 and IV-2.  
Line 3: Table VII-5, line V.

<sup>a</sup>Cycle averages.

financial assets and within the incurrence of liabilities. Among financial asset acquisitions, there is a marked increase in the share of common stocks from the first to the third cycle, primarily reflecting first the rapid growth of investment companies, which invest most of their assets in stocks, and secondly the increases in the total assets of non-insured pension funds and in the share of common stock in their portfolio. Bonds absorbed about one-fourth of all acquisitions of financial assets without substantial changes among the three cycles. The share of short-term claims was higher, and that of long-term claims lower, in the second than in the first cycle. This is due to the net acquisition of short-term Treasury securities in the second cycle—the only one of the three postwar cycles during which the Treasury's debt expanded—compared to net sales of such securities during the other two cycles.

Changes in external debt financing are characterized by a substantially higher share of short-term liabilities in the second and third cycles, and a correspondingly lower share of long-term liabilities, compared to the first cycle. This difference reflects the fall in the share of government pension and retirement funds from 22 per cent of total sources of financial institutions in the first cycle to 12 per cent in the second cycle and 9 per cent in the third, and a less pronounced de-

### *Internal and External Financing*

cline in the share of life insurance company reserves from 24 per cent in the first cycle to 18 and 17 per cent in the second and third.

Fuller understanding of the structural changes in uses and sources of funds of financial institutions in the postwar period requires information similar to that in Table 35 for all the major groups of financial institutions. The figures in Table 35 are, of course, aggregates (columns 1 to 4) or weighted averages (columns 5 to 8) of the corresponding figures for the component groups. They thus reflect both structural changes in uses and sources of funds of the various component groups and changes in the shares of the component groups in the aggregate for all financial institutions.

#### *Long-Term Changes in the Sources of Funds of Main Sectors*

As is always the case in discussing the capital market in the postwar period, some historical perspective is needed. Much of what appears new to contemporary observers and in need of explanation by specific factors turns out, on looking back over the record, to be very similar to the situation in earlier "normal" periods (defined here as periods not affected by war or an economic cataclysm like the Great Depression). Such a similarity does not of course absolve us from trying to explain the structural characteristics of the postwar capital market, but it points to long-term forces rather than to ephemeral developments as explanations.

Within the limited space and resources available here for historical comparisons, probably the best base is provided by a condensed statement of sources of funds for the two reasonably normal periods 1901-12 and 1923-29. We may also add the 1934-39 period, although in many respects it differs from both the postwar period and the two other prewar periods, since it represents from a financial viewpoint a period of near depression. To eliminate the effects of changes in the absolute level of the figures, the comments are based throughout on percentage distributions.

The outstanding impression gained from such a comparison for the two prewar periods and the postwar period is one of considerable similarity if attention is limited to the main sectors and to the main sources of funds, as in Table 23. This similarity is rather remarkable since the postwar period is approximately two and four decades removed from the two prewar periods used and since the differences not

## *Internal and External Financing*

only in the size of the American economy but in many of its structural features among the three periods are pronounced.

### FINANCE

Among financial institutions, internal funds have, as Table 36 indicates, at all times constituted only a minor source of funds.<sup>15</sup> During the postwar period commercial and savings banks, which usually have a considerable amount of retained earnings (net saving), were much less important than in earlier periods, measured by total funds raised, in comparison to insurance companies and pension funds. Mutual life insurance organizations and pension funds show no net saving according to the method of calculation adopted here whereby virtually all assets are attributed to beneficiaries.

In the distribution of external funds, the postwar period is more similar to the 1920's than to the 1901-12 period. However, during all the periods shown in Table 36, the proportion of external sources of funds obtained as short-term liabilities exceeded long-term liabilities substantially, although the relative share of long-term funds was rising. The shift again is a result of the more rapid growth of insurance and pension organizations compared to commercial and savings banks.

The share of financing through equity securities shows an irregular movement, being much higher in the 1920's and in 1900-12 than during the postwar period. These changes reflect in part the importance of investment companies among financial institutions during the 1920's and in part the high volume of stock issues by commercial banks in the 1920's.

### NONFINANCIAL CORPORATIONS

Turning to nonfinancial corporations—which is the largest and relatively most reliably reported business sector—Table 37 and Chart 8 show that internal sources provided slightly more than half of total funds in 1901-12 and in 1923-29, about the same as during the postwar period. The division of internal sources between capital consumption allowances and retained earnings (net saving) also fails to show pronounced changes: capital consumption allowances increased relatively and the proportion of retained income declined.

The changes in the structure of external financing of nonfinancial

<sup>15</sup> Because of lack of data for the prewar periods, Table 36 does not include capital consumption allowances among internal sources. This omission, however, is of little influence for an analysis of the figures.

## Internal and External Financing

TABLE 36

STRUCTURAL CHANGES IN SOURCE OF FUNDS OF FINANCIAL INSTITUTIONS, 1901-58  
(per cent of total funds)

Source	1901-12 (1)	1923-29 (2)	1934-39 (3)	1946-58 (4)
I. Internal (net saving) <sup>a</sup>	6.9	5.2	2.7	5.8
II. External				
1. Total	93.1	94.8	97.3	94.2
2. Liabilities	85.0	82.2	96.4	91.1
a. Short-term	68.8	57.5	70.4	51.3
b. Long-term	16.2	24.7	26.0	39.8
3. Equity securities	8.1	12.6	0.9	3.1
III. Total	100.0	100.0	100.0	100.0
IV. Total (billion dollars)	16.8	45.9	46.0	325.2

Source

Cols. 1-3, line I: First difference of net worth (taken from Financial Intermediaries, Tables A-1 minus A-6, A-7, and A-18 minus A-23 and A-24, and adjusted for capital gains) minus stock issue (line II-3) and minus ibid., Table A-19, line 20. The adjustment for capital gains was derived as follows. For 1923-29, the sum of: (1) first difference of ibid., Tables A-12 and A-13, line 16, minus Study of Saving, Vol. 1, Tables V-51 and V-52, cols. 6 and 7; (2) first difference between 1928 and 1929 in ibid., Vol. 1, Table I-6, cols. 6 and 7, less Tables V-51 and V-52, col. 2; and (3) first difference between the end of 1926 and 1929 in ibid., Vol. 1, Tables V-60 and V-62, cols. 5 and 6, minus Tables V-51 and V-52, cols. 8 and 9. For 1934-39, the sum of: (1) the same as (1) for 1923-29; (2) first difference of Financial Intermediaries, Table A-8, line 23, minus Study of Saving, Vol. 1, Tables V-51 and V-52, col. 2; and (3) first difference of Financial Intermediaries, Table A-21, line 14, minus Study of Saving, Vol. 1, Table V-51, cols. 8, 9, and 11, and Table V-52, cols. 8, 9, 11, and 12.

Cols. 1-3, line II-1: Sum of lines II-2 and II-3.

Cols. 1-3, line II-2: Sum of lines II-2a and II-2b.

Cols. 1-3, line II-2a: First difference of short-term liabilities in Financial Intermediaries, Tables A-1 minus A-6, A-7, and A-18 minus A-23 and A-24, plus A-19, line 20.

Cols. 1-3, line II-2b: First difference of long-term liabilities in ibid., Tables A-1 minus A-6, A-7, and A-18 minus A-23 and A-24.

Cols. 1-3, line II-3: Study of Saving, Vol. 1, Tables V-17, cols. 1 and 12, and V-19, cols. 11, 14, 15, 16, and 18.

Cols. 1-3, line IV: Sum of lines I and II-1.

Col. 4: See Table 35, col. 4.

<sup>a</sup>Excludes capital consumption allowances which are relatively small.

<sup>b</sup>Includes unclassified liabilities.

corporations are more pronounced and possibly more important for capital market analysis. In the two predepression periods, the share of equity securities was considerably higher than in the postwar period. This decline is so pronounced that the figures cannot be entirely misleading, despite their known statistical weakness. However, the reasons for the decline are complicated and cannot be adequately discussed without a breakdown of the aggregate for nonfinancial cor-



## Internal and External Financing

TABLE 37

STRUCTURAL CHANGES IN SOURCES OF FINANCING OF  
NONFINANCIAL CORPORATIONS, 1901-58  
(per cent of total funds)

Source	1901-12 (1)	1923-29 (2)	1934-39 (3)	1946-58 (4)
<b>I. Internal</b>				
1. Total	55.2	54.7	97.6	55.9
2. Capital consumption allowances	37.9	39.8	124.8	41.2
3. Net saving	17.3	14.9	-27.3	14.8
<b>II. External</b>				
1. Total	44.8	45.3	2.4	44.1
2. Borrowing, total	30.8 <sup>b</sup>	25.9	-6.6	37.3
a. Short-term <sup>a</sup>	8.0	4.3	1.0	20.0
b. Long-term <sup>a</sup>	22.5	21.6	-7.6	17.3
3. Equity securities	14.0	19.4	9.0	6.8
<b>III. Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>IV. Total (billion dollars)</b>	<b>40.0</b>	<b>86.1</b>	<b>28.9</b>	<b>453.0</b>

Source

Cols. 1-3, lines I-1, II-1, II-2, II-3, and IV: Financial Intermediaries, p. 222.

Cols. 1-3, line I-2: Line I-1 minus line I-3.

Cols. 1-3, line I-3: Study of Saving, Vol. I, Table T-1, col. 6, minus Table 36, line I, of this book.

Col. 4: National Balance Sheet, Vol. II, Table VII-4. Inventories at adjusted values (lower panel) to make them comparable with the prewar saving concept.

<sup>a</sup>For classification of short- and long-term borrowing, see Table 32.

<sup>b</sup>Total does not equal sum of components because of rounding of figures in source tables.

porations into at least a half dozen subgroups, such as manufacturing, railroads, electrical power, trade, and services. Such a breakdown is not yet possible on a comparable and satisfactory basis, and time was not sufficient to build up a comparison piece by piece from scattered material on the methods of financing individual segments.<sup>16</sup>

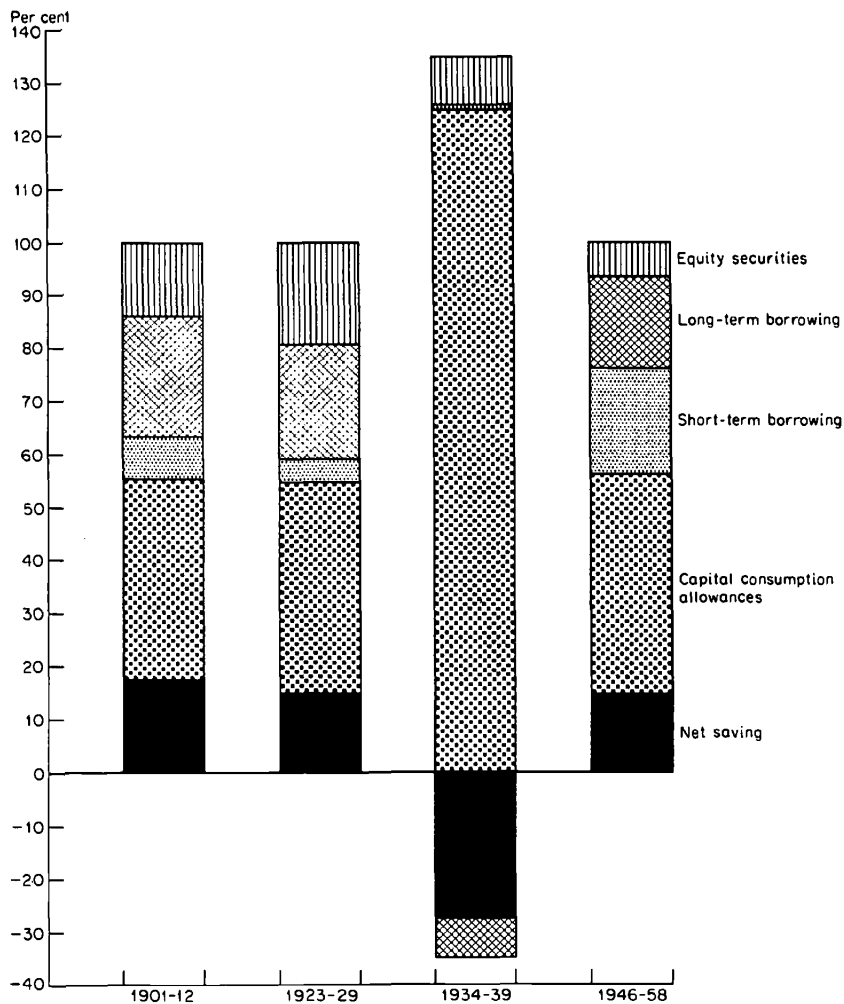
The increasing share of claims in the external financing of non-financial corporations is due almost exclusively to the growing importance of short-term borrowing, which reflects primarily the growth in short-term liabilities to creditors other than banks (a category which in the postwar period includes a substantial amount of federal tax accruals for which there was hardly any parallel before 1929). As a result of this change, short-term and long-term liabilities were of about equal importance during the postwar period, while long-term liabili-

<sup>16</sup> For some attempts in this direction, see Simon Kuznets, *Capital in the American Economy: Its Formation and Financing*, Princeton for NBER, 1962, Chapters 5 and 6; and my *Financial Intermediaries*, Chapter 7.

# Internal and External Financing

CHART 8

## STRUCTURAL CHANGES IN SOURCES OF FUNDS OF NONFINANCIAL CORPORATIONS, 1901-58



Source: Table 37.

## *Internal and External Financing*

ties had been much larger than short-term borrowing in the two pre-depression periods.

### NONFINANCIAL UNINCORPORATED BUSINESS

In the case of agriculture, the structure of financing during the postwar period can be compared usefully only with the period 1901-12

TABLE 38  
STRUCTURAL CHANGES IN SOURCES OF FINANCING OF AGRICULTURE, 1901-58  
(per cent of total funds)

Source	1901-12 (1)	1923-29 (2)	1934-39 (3)	1946-58 (4)
I. Internal				
1. Total	70.6	114.4	103.0	86.2
2. Capital consumption allowances	72.6	106.4	83.4	71.4
3. Net saving	-1.9	8.0	19.6	14.7
II. External <sup>a</sup>				
1. Total	29.4	-15.2	-3.0	13.8
2. Short-term borrowing <sup>b</sup>	15.4	-6.8	3.0	7.0
3. Long-term borrowing <sup>b</sup>	14.0	-8.3	-6.0	6.8
III. Total	100.0	100.0	100.0	100.0
IV. Total (billion dollars)	14.3	13.2	13.3	96.0

Source

Cols. 1-3, lines I-1, II-1, II-2, II-3, and IV: Financial Intermediaries, pp. 206-207.

Cols. 1-3, line I-2: Line I-1 minus line I-3.

Cols. 1-3, line I-3: Study of Saving, Vol. I, Table A-3, col. 1.

Col. 4: National Balance Sheet, Vol. II, Table VII-3. Inventories at adjusted values (lower panel) to make them comparable with the prewar saving concept.

<sup>a</sup>Land costs and net sales of farm land are omitted to preserve comparability with col. 4.

<sup>b</sup>For classification of short- and long-term borrowing, see Table 30.

because in the 1920's and the 1930's external financing was negative (Table 38).<sup>17</sup> The share of external financing during the postwar period, although positive, is considerably lower than in 1901-12, a period notable for a rapid expansion in cultivated area and farm output and substantial increases in the prices of agricultural production and land. In both 1901-12 and the postwar period, the distribution

<sup>17</sup> Table 38 does not include an additional source of financing—the net sale of farm land to nonfarm sectors—partly because the figures involved are subject to wide margins of error. It is likely, however, that this was not a negligible source of funds for agriculture in the prewar period. In the two predepression periods, their share may have approached one-tenth (*Financial Intermediaries*, p. 206), while it was probably below one-twentieth in the postwar period.

## Internal and External Financing

of external financing was similar, short-term and long-term funds each contributing about one-half.

The rough estimates that can be made of the sources of funds for unincorporated nonfarm business during the prewar period do not justify a discussion of changes in the structure of its financing. Such

TABLE 39  
STRUCTURAL CHANGES IN SOURCES OF FINANCING OF  
NONFARM UNINCORPORATED BUSINESS, 1901-58  
(per cent of total funds)

Source	1901-12 (1)	1923-29 (2)	1934-39 (3)	1946-58 (4)
I. Internal				
1. Total	66.9	69.3	104.5	66.0
2. Capital consumption allowances	52.0	59.4	73.7	58.3
3. Net saving	14.9	9.8	30.9	7.7
II. External				
1. Total	33.1	30.7	-4.5	34.0
2. Short-term borrowing <sup>a</sup>	26.0	5.5	20.4	20.5
3. Long-term borrowing <sup>a</sup>	7.2	25.2	-24.9	13.5
III. Total	100.0	100.0	100.0	100.0
IV. Total (billion dollars)	5.8	10.8	7.0	84.8

### Source

Cols. 1-3, line I-1: Sum of lines I-2 and I-3.

Cols. 1-3, line I-2: Study of Saving, Vol. I, sum of Table P-12, col. 5; Table P-13, col. 5; Table P-17, col. 7; Table R-12, col. 2; and Table R-13, col. 5. (Depreciation may be underestimated since it was not always possible to obtain a breakdown between the corporate and the unincorporated sectors.)

Cols. 1-3, line I-3: Ibid., Vol. I, Table T-1, col. 5.

Cols. 1-3, lines II-1, II-2, II-3: Ibid., Vol. III, Table W-29, first difference of liabilities.

Cols. 1-3, line III: Sum of lines I and II.

Col. 4: National Balance Sheet, Vol. II, Table VII-2. Inventories at adjusted values (lower panel) to make them comparable with the prewar concept.

<sup>a</sup> For classification of short- and long-term borrowing, see Table 31.

a discussion would be further complicated by the conceptual difficulty of distinguishing between retained earnings and the net contribution of capital by proprietors (Table 39).

### NONFARM HOUSEHOLDS

The sources of financing nonfarm households during the postwar period were, as Table 40 shows, very similar to those in the 1920's, but they differed substantially from those in 1901-12. In the postwar period and in the 1920's internal funds accounted for less of total financ-

## Internal and External Financing

TABLE 40

STRUCTURAL CHANGES IN SOURCES OF FINANCING OF NONFARM HOUSEHOLDS, 1901-58  
(per cent of total funds)

Source	1901-12 (1)	1923-29 (2)	1934-39 (3)	1946-58 (4)
I. Internal				
1. Total	91.7	82.1	93.0	82.4
2. Capital consumption allowances	37.9	37.9	63.6	41.9
3. Net saving	53.9	44.2	29.4	40.5
II. External				
1. Total	8.2	17.9	7.0	17.7
2. Short-term borrowing <sup>a</sup>	4.3	7.0	6.4	5.7
3. Long-term borrowing <sup>a</sup>	3.9	10.8	0.6	11.9
III. Total	100.0	100.0	100.0	100.0
IV. Total (billion dollars)	55.7	146.6	67.3	826.2

Source

Cols. 1-3, lines I-1, II-1, II-2, II-3, III, and IV: Financial Intermediaries, p. 193.

Cols. 1-3, line I-2: Line I-1 minus line I-3.

Cols. 1-3, line I-3: Study of Saving, Vol. I, Table T-8, col. 1.

Col. 4: Table 29, col. 8.

<sup>a</sup>For classification of short- and long-term borrowing, see Table 29.

ing than in 1901-12. However, in the distribution of internal funds among capital consumption allowances and net saving, the postwar period, with an approximately even division among these two sources, differs not only from 1901-12 but also from the 1920's. This change reflects the increasing importance of consumer durables relative to nonfarm households' total income and tangible assets.

In the distribution of external financing, the postwar period and the 1920's are again on one side, and the 1901-12 period on the other. Long-term funds, essentially home mortgages, furnished a larger share of total external financing in the postwar period and the 1920's than in 1901-12. This increase reflects the home-building booms of the 1920's and the postwar period, during both of which borrowing terms became considerably more liberal than they had been before. Within short-term financing, the importance of commercial bank loans other than consumer credit declined considerably, which in part reflected the growth of consumer credit.

### GOVERNMENT

The share of internal funds in the financing of state and local governments is not too different in all three periods, as is evident from Table 41. Indeed, the postwar share is virtually identical with that

TABLE 41

STRUCTURAL CHANGES IN SOURCES OF FINANCING OF STATE AND LOCAL GOVERNMENTS,  
1901-58  
(per cent of total funds)

Source	1901-12 (1)	1923-29 (2)	1934-39 (3)	1946-58 (4)
I. Internal				
1. Total	60.0	67.8	97.9	66.5
2. Capital consumption allowances	25.4	26.6	50.0	43.4
3. Net saving	34.6	41.2	48.0	23.2
II. External				
1. Total	40.0	32.2	2.1	33.5
2. Short-term borrowing <sup>a</sup>	0	0	-2.7	1.2
3. Long-term borrowing <sup>a</sup>	40.0	32.2	4.8	32.3
III. Total	100.0	100.0	100.0	100.0
IV. Total (billion dollars)	6.0	20.2	14.6	123.5

## Source

Cols. 1-3, lines I-1, II-1, II-2, II-3, and IV: Financial Intermediaries, p. 260.

Cols. 1-3, line I-2: Line I-1 minus line I-3.

Cols. 1-3, line I-3: Study of Saving, Vol. I, Table T-1, col. 7.

Col. 4: Table 33, col. 8.

<sup>a</sup>For classification of short- and long-term borrowing, see Table 33.

TABLE 42

STRUCTURAL CHANGES IN SOURCES OF FINANCING OF FEDERAL GOVERNMENT,<sup>a</sup>  
1901-58  
(per cent of total funds)

Source	1901-12 (1)	1923-29 (2)	1934-39 (3)	1946-58 (4)
I. Internal				
1. Total	55.6	458.8	-51.4	62.2
2. Capital consumption allowances	13.7	33.9	3.4	59.1
3. Net saving	41.8	424.9	-54.8	3.1
II. External				
1. Total	44.4	-352.9	151.4	37.8
2. Short-term borrowing <sup>b</sup>	44.4	0	58.0	-25.7
3. Long-term borrowing <sup>b</sup>	0	-352.9	93.5	63.5
III. Total	100.0	100.0	100.0	100.0
IV. Total (billion dollars)	1.8	1.7	24.5	27.1

## Source

Cols. 1-3, lines I-1, II-1, II-2, II-3, and IV: Financial Intermediaries, p. 266.

Cols. 1-3, line I-2: Line I-1 minus line I-3.

Cols. 1-3, line I-3: Study of Saving, Vol. I, Table T-1, col. 8.

Col. 4: National Balance Sheet, Vol. II, Table VII-7. Sources of funds financing civil expenditures only were included, so as to make the saving figure comparable with the prewar concept.

<sup>a</sup>Including government corporations.

<sup>b</sup>For classification of short- and long-term borrowing, see Table 34.

### *Internal and External Financing*

of the 1920's, although it is higher than that observed during 1901-12. Here too a considerable decline is noticed in the proportion of internal financing that can be classified as net saving. External financing in all periods took the form of net issuance of tax-exempt securities, which are classified as long-term liabilities, although they are mostly issued in serial form and thus include maturities that should be regarded as short-term liabilities. However, comprehensive information is not available on the maturity distribution of tax-exempt securities that would permit a judgment on a possible shift in the proportion of short-term and long-term liabilities.

There is no point in trying to establish trends in the structure of financing of the federal government because of the sharp changes in the scope of its activities since the beginning of the century and the influence of military expenditures during the postwar period, for which there is hardly any parallel for the two predepression periods. The figures are shown in Table 42 in an arrangement identical with that of the other sectors and show the sources of funds financing civil expenditures only.