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Volume Title: The National Balance Sheet of the United States, 1953-1980

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Volume Publisher: University of Chicago Press

Volume ISBN: 0-226-30152-4

Volume URL: <http://www.nber.org/books/gold82-1>

Publication Date: 1982

Chapter Title: Problems of Constructing National and Sectoral Balance Sheets

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Chapter URL: <http://www.nber.org/chapters/c7221>

Chapter pages in book: (p. 29 - 40)

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# 3            Problems of Constructing National and Sectoral Balance Sheets

The purpose of this study is the development of standardized and hence comparable balance sheets on an annual basis for the period 1953–75 for all economic units in the United States that can be kept up to date by statistics currently available.<sup>1</sup> This requires decisions, and sometimes compromises, on sectoring, i.e., the grouping of the many million economic units operating in the United States; on the number and types of assets and liabilities to be distinguished; on the principles of valuation of assets, liabilities, and net worth; and on the methods of combining the balance sheets of individual units.

## 3.1. Sectoring

The sectoring adopted, with only minor changes, is that of the flow-of-funds statistics of the Federal Reserve Board, which distinguishes over two dozen sectors (FRB 1975, p. 34).

- a. Households
- b. Farm business
- c. Nonfarm noncorporate business
- d. Corporate nonfinancial business
- e. State and local governments
- f. U.S. government
- g. Rest of the world
- h. Financial institutions (nineteen subsectors)

The main difference from the Federal Reserve system is the introduction of a nonprofit institutions sector, which in the flow-of-funds statistics

1. For the results of my earlier attempts to develop national and sectoral balance sheets for the United States cf. Goldsmith 1955–56, vol. 3, part 1; Goldsmith, Lipsey, and Mendelson 1963; and Goldsmith 1973.

is included in the household sector; and the creation of five new financial institutions subsectors (individual and common personal trust funds; fraternal life insurance; savings bank life insurance; and the postal savings system) which are included in the flow-of-funds in the household and U.S. government sectors.

The sectoral breakdown used in this study deviates in some points from that recommended by the United Nations statisticians (U.N. Dept. of Economic and Social Affairs 1977, p. 17), mainly because the necessary data are not available. Thus public enterprises are not separated from general government as would be desirable; and the balance sheets of farm and nonfarm unincorporated enterprises do not include the owners' nonbusiness assets, a treatment necessitated by the absence of the relevant data. The balance sheet of financial institutions is not broken down into four subsectors, but the figures are available for a much larger number of them in the flow-of-funds accounts, and figures for the total assets of these subsectors at three benchmark dates can be derived from table 85. Social security funds are not shown separately, which is not a serious omission if their actual assets are considered, but is serious if the funds' liabilities are calculated on an actuarial basis, a possibility discussed in 7.8. Finally, the aggregative figures for the household sector are not broken down into subsectors, but 6.4.6 presents information on nine breakdowns on the basis of sample data.

Farm and nonfarm nonfinancial unincorporated business enterprises are treated in a fashion parallel to nonfinancial corporations, i.e., the difference between the market value of their assets and the book value of their liabilities, designated as "equity," is shown on the liabilities side, and is shown again, like corporate stock, on the asset side of the balance sheet of the household sector.<sup>2</sup> This assumes that all farm and nonfarm nonfinancial unincorporated business enterprises are fully owned by domestic individuals, and thus slightly overstates the latter's assets and understates that of other owners. In contrast, the difference between assets and liabilities of the five "ultimate" sectors (households, nonprofit organizations, federal government, state and local governments, rest of the world), called their "net worth," appears on the liabilities side of their balance sheets, but does not become part of any sector's assets.

In principle the balance sheets include all assets and liabilities of the units belonging to the sector. This, however, is not true of the farm and nonfarm noncorporate business sectors. Here the balance sheet is limited to tangible assets and a few financial assets and liabilities for which estimates can be made. The other assets and liabilities are included

2. As explained below, the value of the equity of nonfinancial corporations and financial institutions in their balance sheets differs from that in the balance sheets of the owners. This is not the case for unincorporated business enterprises.

without identification in the balance sheet of the household sector, which embraces the personal accounts of the proprietors.

The balance sheets of the subgroups of financial institutions are limited to financial assets and liabilities because information on the market value of their tangible assets is not available. However, estimates indicate that the value of all financial institutions' tangible assets is now of the order of only 3 percent of their financial assets and of 1 percent of all tangible assets in the national balance sheet.

The sectoring is exhaustive, i.e., intended to cover every economic unit operating in the United States. There are, however, two types of financial institutions, viz, closed-end investment companies and small business investment companies, which are omitted for lack of information. Their financial assets in 1975 were of the order of only 0.4 percent of those of all financial institutions, and of approximately 0.2 percent of national assets.

### **3.2. Categories of Assets and Liabilities**

In order to facilitate comparison among sectors and over time, all assets and liabilities, equities and net worth, have been arranged in about twenty categories of financial assets and liabilities and in five categories of tangible assets. There is, of course, no sector which shows entries for all categories. Indeed for most sectors estimates are limited to between half a dozen and a dozen asset and liability categories.

The categories of assets and liabilities distinguished here correspond to those used for tangible assets in the statistics of the Bureau of Economic Analysis of the Department of Commerce and for financial assets and liabilities in the flow-of-funds statistics of the Federal Reserve Board, although the number of categories has been considerably reduced by combining related or relatively small items. Financial assets and equities include the new categories of equities in unincorporated business enterprises and in trust funds.

No allowance is made in the annual estimates for the subsoil reserves of oil and gas, metals and minerals; for standing timber; for unfunded liabilities of pension funds; for research and development expenditures; and for human capital. Rough estimates for these items in 1953 and 1975 will, however, be presented in chapter 7 in order to indicate their relation to the categories covered by the statistics of this study.

The omission of estimates for goodwill and similar items is motivated not only by the absence of data but also by difficulties of definition and for conceptual reasons. It conforms to the treatment in the flow-of-funds accounts and to the recommendations of the United Nations.

The itemization used in this study is considerably less detailed than that suggested by the United Nations statisticians for tangible assets (U.N. Economic and Social Council 1978), this study distinguishing only five

types compared to sixteen for the United Nations schedules. In particular, estimates for structures, equipment, and inventories are shown only as one aggregate for each type compared to five, three, and seven categories suggested by the United Nations. Such detail was not regarded as essential for this study, the more so as similar breakdowns for structures and equipment are available in the Bureau of Economic Analysis estimates, whose totals are used here. Subsoil assets are not included in the main set of estimates because of lack of comprehensive figures, but the available data are discussed in chapter 6. In the case of financial instruments this study, following the more detailed flow-of-funds statistics, distinguishes twenty types compared to the thirteen of the United Nations schedule.

### **3.3. Valuation**

All items have been valued, at least in principle, at current market price; or where this is not feasible, as for most types of reproducible tangible assets, at presumed cost of reproduction. There is, however, an exception in that all claims and liabilities are entered at par value. The difference between par and market values is negligible or small for short-term claims and liabilities, but can and has occasionally become large for medium and long-term claims. The difference is evident in the prices of marketable government and corporate bonds, but because of the accounting conventions will be reflected only rarely or only to an attenuated extent in the balance sheets of either the issuers or the holders. It is, however, arguable that to the extent that the estimates are intended to reflect values relevant to the issuer or holder par is preferable to market value.

Entering all fixed-interest-bearing securities at their book value, as is done in the flow-of-funds statistics and accepted here, leads to overstating their market value as interest rates rose and prices fell throughout most of the period, and sharply so during the second half. However, market prices differing considerably from par are established only for medium- and long-term marketable securities, which constitute only a fraction of all fixed-interest-bearing securities, excluding not only short-term securities but also mortgages, other long-term loans, and privately placed securities. Hence if the shift from par or book to market value were applied only to medium- and long-term fixed-interest-bearing securities traded on a stock exchange or in an active over-the-counter market the adjustments would be moderate. If, however, the discrepancy were extended by analogy to all medium- and long-term claims, whether traded or not (possibly even including insurance and pension claims), the overstatement would be substantial. A parallel adjustment would then also have to be made on the liabilities side of the balance sheet. In view of

the extreme difficulty of making the shift from par or book to market value of all medium- and long-term claims on an annual basis and separately for each sector, and in view of the conceptual problems involved, the adjustment has not been made, and the valuation at par or book as shown in the flow-of-funds statistics has been maintained throughout.

On an annual basis the ratio of market to par value for government bonds has fluctuated during the 1953–75 period between 0.82 and 1.07, and for corporate and foreign bonds between 0.72 and 0.99. At the three benchmark years shown in most of the tables the ratio was 1.00 and 0.95 for government and nongovernment bonds respectively in 1953; 0.97 and 0.92 in 1964, and 0.98 and 0.84 in 1975 (Eisner 1977, table 59). If these ratios could be applied to the entirety of government and nongovernment securities outstanding, they would indicate a total discount from par values of \$3 billion in 1953, \$20 billion in 1964, and nearly \$70 billion in 1975, equal to 0.2, 0.6, and 0.9 percent respectively of the total value of all financial assets. Since these discounts are applicable in full only to long-term obligations, the appropriate correction would be considerably smaller than the above calculation indicates. It therefore would not be large enough, even in years such as 1959 and 1969 when it was at its maximum, to affect seriously any major aspect of the national balance sheet, though it should be taken into account in analyzing the balance sheets of the government and corporate sectors.<sup>3</sup>

Another exception is the valuation in the balance of payments statistics used here of direct foreign investments at book value. Since these amounted in 1975 to 1.02 percent of the national total on the assets side and to 0.85 percent on the liabilities side, the underestimate compared to their market value, which is involved, while not negligible and indeed essential in the assessment of the role of the rest-of-the-world sector and substantial for the balance sheet of the nonfinancial corporate sector, is of minor importance within the national balance sheet.

A particularly large difference between book value, used in the flow-of-funds accounts, and market value, finally, affects the gold stock in the 1970s. If the gold stock is valued at market prices it would at the end of 1975 have had a value of \$38.5 billion instead of that shown of \$9.6 (excluding about \$2 billion of Special Drawing Rights combined in the statistics with gold), which is based on the book value of \$42 per ounce. The difference, which started to develop in 1968, had in 1975 risen to \$29

3. The effect on absolute and relative figures would, however, be substantial if an adjustment for changes in interest rates were applied to all medium and long-term claims, whether marketable or not, on both the asset and the liabilities side of the balance sheet. It is also substantial, for the balance sheets for the 1978–80 period when the difference between par and market values had become very large (cf. table 9, col. 8). In view of the conceptual and statistical problems of estimating market or quasi-market values for these claims and the fact that they are almost always ignored in the published balance sheets of financial institutions no adjustment has been made.

billion, and was then equal to about 0.4 percent of national wealth and financial assets, and to 0.2 percent of national assets. The difference, while unimportant within the national balance sheet, would substantially affect the assets of monetary authorities and their share in financial and national assets, increasing the former in 1975 from \$125 billion to about \$155 billion and the latter from 1.7 to 2.1 and from 0.9 to 1.1 respectively.<sup>4</sup>

It thus appears that the adjustments to market value move in opposite directions—upward for direct foreign investments and for gold; downward for bonds—and that the net difference would be small compared to the national totals for financial or all assets.

A difficult and quantitatively much more important problem of valuation is posed by insurance and pension funds which are not fully funded, i. e., whose assets are smaller than their actuarial liabilities, viz., private and state and local employee pension funds, and in particular the federal government's social security funds. These funds are entered in the balance sheets of the funds and the beneficiaries with their actual assets. In table 86 in chapter 7, however, their unfunded liabilities are shown, though they can only be estimated on the basis of assumptions that are to a considerable degree arbitrary, and thus are situated within a wide range of defensible alternative estimates.

Generally the value of an item is the same in the balance sheet of the holder and in that of the issuer. The main exception is corporate stock. Corporate stocks are entered in the balance sheets of the owners at market value, but in the balance sheets of nonfinancial corporations and financial institutions as the difference between the replacement cost or market value of assets and liabilities. These two values differ, and often quite substantially, as will appear in table 75.

### **3.4. Deflation (Reduction to Constant Prices)**

In a period of a substantial rise in the price level, national balance sheets in current prices, though they remain the primary object of interest, must for some purposes, particularly the calculations of real rates of growth, be supplemented by balance sheets expressed in constant prices. The need for such adjusted balance sheets is the more urgent the larger the movements in absolute and relative asset prices. Table 9 shows indices for eight types of asset prices, together with the implicit national product deflator which measures the price level of current output, permitting an evaluation of asset price trends during the past quarter-century.<sup>5</sup>

4. Even at the end of 1980, with the market value of the gold stock in the order of \$155 billion compared to a book value of less than \$10 billion, the difference would have been equal to only about 1.4 percent of financial and to about 0.7 percent of national assets, though it would have increased the assets of monetary authorities by about 80 percent.

5. The results would be very similar if the consumer price index had been used as the deflator.

It is immediately evident that the upward trend in prices, which characterizes the entire period, was much stronger in the second than in the first half. Thus the national product deflator rose at an annual average rate of only 1.9 percent a year between 1953 and 1964 compared to rates of 5.2 percent in the 1964–75 period and fully 7 percent in the four years 1976–79. Tangible assets prices, measured by the implicit national wealth deflator, i.e., the ratio of the value of national wealth in current and in constant (1972) prices, rose at a rate of only 1.4 percent a year in the first, but one of 5.8 percent in the second half of the period. The identity of the rates of increase of the prices of current output and of tangible assets for the period as a whole of 3.6 percent and the relatively small differences between the rates for the two halves of the period of +0.5 and –0.6 percent respectively are due largely to the fact that the price indices of current output and of the output of capital goods, which have been used to deflate the estimates of the stock of reproducible tangible assets showed very similar trends as can be seen by comparing columns 1 to 4 of table 9. Thus the average rate of increase for the entire period of 1953 through 1975 was 3.1 percent for total national product and 2.9 percent for the output of private structures and equipment and 3.5 percent for all reproducible tangible assets. The picture might be somewhat different, particularly in the case of annual fluctuations, if indices of the market prices of the different types of tangible assets were available, but these would conceptually cover only a fraction of the total, given the absence of competitive second-hand markets for many of them. Land prices, for which direct statistical information is limited to farm land, which accounts for only about one-fourth of the total, do not seem to have deviated sharply from those of reproducible tangible assets except during the 1970s. The weight of land in an index of all tangible assets, moreover, is only in the order of one-fifth.

In the case of financial assets the majority, viz., all short-term and most medium-term claims, are not subject to significant changes in current prices. Long-term claims are, but the changes, if measured by the ratio between the market and par value of claims, the latter usually being identical with or very close to book value, have been moderate. They averaged 9 percent for the twenty-two years of the period (six in the first and thirteen in the second half), though exceeding 10 percent in eight years (seven of them in the second half of the period), and reached a maximum of 22 percent in 1969, but were only 7 percent lower in 1975 than they had been in 1953. Price changes have, of course, been much more pronounced for corporate stock. Thus an index of stock prices rose at an average rate of 11.5 percent between 1953 and 1964, but by only 0.5 percent in the following eleven years, and by 6 percent for the period as a whole. The implicit price of households' equity in unincorporated farm and nonfarm business enterprises, derived as the ratio of their current



**Table 9**                      **Asset Price Indices, 1953–80 (1972 average = 100.0, except cols. 3–6, 8, and 9)**

	Gross national product <sup>a</sup>	Private fixed capital formation <sup>a</sup>	National wealth <sup>b</sup>	Reproducible tangible assets <sup>b</sup>	Land		Corporate stock <sup>d</sup>	Listed corporate bonds <sup>e</sup>	Gold <sup>b</sup>
	(1)	(2)	(3)	(4)	Total <sup>b</sup>	Farm <sup>c</sup>	(7)	(8)	(9)
1953	58.9	62.9	62.9	63.0	62.4	36.0	22.6	98.3	53.5
1954	59.7	63.4	63.1	63.2	62.7	38.7	27.2	100.1	54.0
1955	61.0	64.8	65.4	65.4	65.5	38.7	37.1	97.1	53.5
1956	62.9	68.3	68.5	68.5	68.4	41.4	42.7	91.6	53.8
1957	65.0	70.9	69.8	69.9	69.3	44.1	40.6	94.9	53.9
1958	66.1	70.8	70.7	70.7	70.5	48.2	42.3	91.3	54.1
1959	67.5	71.6	71.3	71.4	71.2	48.8	52.5	87.5	54.1
1960	68.7	71.9	71.5	70.7	70.8	50.3	51.1	93.2	54.9
1961	69.3	71.6	72.1	72.5	70.4	53.0	60.7	92.3	54.2
1962	70.6	72.0	72.3	72.7	70.9	52.3	57.1	95.0	54.0
1963	71.6	72.1	72.6	72.9	70.9	55.7	64.0	94.2	54.0
1964	72.7	72.8	73.4	74.0	71.5	58.7	74.5	95.4	54.1
1965	74.3	73.8	74.7	75.5	72.2	62.9	80.7	93.1	54.1
1966	76.8	76.2	76.5	77.5	73.4	68.0	78.1	91.5	54.2
1967	79.0	78.7	79.2	80.1	76.4	72.9	84.2	87.9	54.2

1968	82.6	82.1	83.3	83.8	81.8	77.0	90.4	86.7	64.6
1969	86.8	86.9	89.0	89.1	88.3	80.1	90.0	77.8	54.2
1970	91.5	91.1	92.9	93.1	92.0	83.2	76.2	83.6	57.6
1971	96.0	95.7	97.6	97.8	97.0	89.0	90.0	89.1	67.2
1972	100.0	100.0	102.7	102.5	103.6	100.0	100.0	90.4	100.0
1973	105.7	105.5	113.5	112.7	116.3	129.6	98.4	85.2	173.0
1974	114.9	116.7	127.9	127.3	130.0	143.3	75.9	87.7	287.6
1975	125.6	131.9	136.2	135.3	139.1	161.5	78.9	91.9	216.1
1976	132.1	139.2	...	143.7	...	189.0	93.4	100.4	207.6
1977	139.8	149.7	...	155.4	...	207.6	89.9	96.5	254.2
1978	150.1	163.7	...	171.0	...	227.8	87.9	87.6	348.2
1979	162.8	179.1	...	190.1	...	268.0	94.4	74.3	788.9
1980	177.5	194.5	...	210.6	...	...	108.8	62.0	908.3

<sup>a</sup>Implicit deflator; annual average (*Economic Report of the President*, 1981, p. 236).

<sup>b</sup>Implicit deflator; year-end (worksheets underlying table 6) to 1975 extrapolated by Department of Commerce, Bureau of Economic Analysis, printout.

<sup>c</sup>Average price per acre of farm land and buildings; March 1 of following year or, from 1963 on, average of prices of Nov. 1 and March 1 or February 1 of following year (*Agricultural Statistics*, 1980, p. 422, for 1965 to 1980, linked to *Historical Statistics*, p. 457, for 1953 to 1964).

<sup>d</sup>Standard and Poor's composite index; annual average (*Economic Report of the President*, 1980, p. 307.)

<sup>e</sup>Ratio of market to par value of high-grade bonds; year-end (Eisner, table 66), extrapolated by Standard and Poor's ratio of market to par value, average of December and following January (*Survey of Current Business*, var. issues).

<sup>f</sup>London price in dollars per ounce; end of year (*International Financial Statistics Yearbook*, 1980, pp. 42–43).

and constant price value, which is essentially determined by the price movements of their tangible assets and by their leverage ratio, rose at an average rate of 3.7 percent for the period as a whole, and at rates of 1.1 and 6.3 percent for its two halves.

We then have the rates of increase in the prices of the main components of assets, together with their shares in total national assets at current prices at the beginning and the end of the period, as shown in Table 10, to give an idea of their relative importance in an index of asset prices.

### **3.5. Consolidation**

In principle the entries in the sectoral, and hence also the national, balance sheets are on a combined basis, i.e., they aggregate the balance sheets of all units belonging to the sector without eliminating, as is done for consolidated balance sheets, intrasectoral claims and liabilities. There are in the Federal Reserve Board's flow-of-funds accounts, followed here, two exceptions to this rule. The first concerns the balance sheet of the federal government, which nets Treasury obligations held by federal trust funds, e.g., the holdings of federal social security organizations.<sup>6</sup> The second which affects the balance sheet of nonfinancial corporations, omits intercorporate stockholdings which are in the order of one-sixth of all stock outstanding (Eilbott 1973, pp. 444–46). Both exceptions, with together less than 2 percent of national assets, are not large enough to affect substantially the structure or the development of the national balance sheet. They do, however, do so in the case of the balance sheets of the federal government and of nonfinancial corporations, and of the sectoral distribution of Treasury securities and corporate stock.

### **3.6. Sources**

In order to base the estimates of national and sectoral wealth as far as possible on data published by government agencies and kept up to date by them, most of the figures are taken in the case of reproducible assets from estimates of the Bureau of Economic Analysis of the Department of Commerce<sup>7</sup> and in the case of financial assets and liabilities from the flow-of-funds statistics of the Federal Reserve Board.

Other sources have been used primarily for the estimates of land values; for the assets and liabilities of nonprofit organizations; for the assets and liabilities of personal trust funds, and of a few smaller financial

6. These holdings totaled about \$100 billion in 1975 excluding federal employees' retirement funds whose claims against the Treasury are included in the federal government's balance sheet (*Statistical Abstract* 1976, p. 235).

7. Musgrave 1976. and supplementary information obtained from Bureau of Economic Analysis.

**Table 10** Prices of Main Components of Assets: Rate of Increase and Share in Total National Assets

	Rate of price increase; (percent)	Share in assets; (percent)	
	1953-75	1953	1975
1. Short- and medium-term claims	0.0	15.0	16.1
2. Insurance and pension reserves	0.0	4.3	4.2
3. Long-term claims <sup>a</sup>	-0.4	14.7	13.9
4. Corporate stock	6.0	6.2	6.2
5. Equity in unincorporated enterprises	3.7	9.8	7.1
6. Other financial assets	...	4.1	4.7
7. Land	3.7 <sup>bc</sup>	7.6	11.3
8. Residential structures	3.4 <sup>de</sup>	10.5	9.6
9. Nonresidential structures	4.5 <sup>d</sup>	10.0	12.7
10. Producer durables	3.2 <sup>d</sup>	6.9	5.6
11. Consumer durables	2.2 <sup>d</sup>	4.3	4.0
12. Inventories	3.2 <sup>f</sup>	6.6	4.6

<sup>a</sup>Includes all securities and mortgages.

<sup>b</sup>Ratio of land values in current and constant prices; not a true price index.

<sup>c</sup>Farm land 6.8. The increase in the value of residential lots for the 1965-78 period can be estimated, on the basis of data in Fellner (1979, p. 178) at 5.7 percent a year; it should have been substantially lower, probably between 3 and 4 percent, for 1953-75.

<sup>d</sup>Implicit deflator from national accounts (*Economic Report of the President*, 1979, p. 186).

<sup>e</sup>The median price of existing single family houses, which includes land as well as structure value, the only type of reproducible tangible asset except motor vehicles for which a developed second-hand market may be said to exist, rose between 1966 and 1975 at an annual average rate of 7.7 percent compared to a rate of 6.8 percent for new homes and one of 6.3 percent for the implicit deflator for all private domestic investment. (Cagan and Lipsey 1978, p. 39). Use of second-hand prices instead of construction costs would in 1975 have produced a value for the stock of single family homes 8 percent higher, if it is assumed that no difference existed in 1966. The difference would in 1975 have amounted to nearly \$80 billion (based on the estimate of the current value of private nonfarm 1-4 unit buildings in U.S. Department of Commerce, Bureau of Economic Analysis, 1976, p. 320), equal to 2.6 percent of the value of all structures, to 1.2 percent of that of all tangible assets and to 0.6 percent of national assets, and hence would be not negligible though not substantial within the national balance sheet.

<sup>f</sup>Producers' prices.

institutions, viz., fraternal insurance organizations, savings bank life insurance, postal savings, and the federal social insurance funds. These estimates therefore require some explanation.

In the absence of a generally accepted estimate of the value of land of the different sectors—except that for agriculture where the estimates of the Department of Agriculture (annual *Balance Sheet of the Farming Sector*) have been used—an extrapolation on the basis of fragmentary data of a series for the period 1952-68 prepared for an earlier National Bureau study (Milgram 1973, p. 344) has been used. The resulting figures

are probably affected with a larger error of estimate than any other series used.

In the case of nonprofit organizations, estimates were available for reproducible tangible assets from the Bureau of Economic Analysis and for liabilities from flow-of-funds statistics. Estimates for land and for financial assets required use of several sources, the most important of which was Nelson (1973, pp. 385, 390).

Assets of personal trusts and estates are reported in recent years comprehensively by the Federal Deposit Insurance Corporations. For earlier years similar figures have to be constructed on the basis of partial reports. (Goldsmith 1973, pp. 310 ff.). Statistics of common trust funds are available throughout the period in the *Federal Reserve Bulletin* or from the Comptroller of the Currency.

The assets of fraternal life insurance companies have been estimated by applying the distribution of the assets of the ten largest fraternal as shown in *Best's Life Reports* to the total assets of all fraternal as reported in the American Council of Life Insurance Association's *Life Insurance Fact Book*. Similarly the assets of savings bank life insurance funds were estimated by applying the distribution of assets of Massachusetts banks, obtained from the Division of Savings Bank Life Insurance, to the total assets of the Massachusetts, New York, and Connecticut funds as given in the *Statistical Abstract of the United States* while the assets of U.S. government social security funds were taken from *Social Security Bulletin*, Statistical Supplement.

The balance sheet of the top 1 percent of wealth-holders has been derived from estate tax returns as processed by J. E. Smith and S. D. Franklin (1975) for 1958, 1962, 1965, 1969, and 1972 (*Statistical Abstract*, 1976, p. 427).

Unless otherwise indicated all figures in text and tables are taken from the printouts of the annual balance sheets of individual sectors or combinations of them in current or constant (1972) prices derived as described in this section. The sources of figures not included in the main set of estimates are identified in the relevant tables.