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CHAPTER 5

Problems in Measuring Net Worth

THE characteristics of national and sectoral balance sheets have been described in detail in Part One, Chapters 2 and 3. This chapter will discuss the effects of aggregation, the decomposition of nominal net worth changes, the deflation of assets and net worth, and the statistical difficulties involved in measuring net worth.

Effects of Aggregation

Sector and subsector balance sheets, except that of the federal government, usually combine the accounts of large numbers of component units. The only exceptions are a few subsectors in the nonfinancial corporate and finance sectors where the number of units is relatively small. Hence, the structure of and changes in the net worth of a sector are not necessarily representative of the experience of a majority of members because they are dominated by the figures for the larger units.

This defect can be mitigated by using smaller subsectors, which are more homogeneous in balance sheet structure and reaction to price changes than the broader ones. But continuous data for these subsectors are difficult to obtain and it is therefore necessary to make use of occasional sample or census-type data that permit finer sectoring. It has not been possible to proceed very far along these lines for two reasons. One is the difficulty of converting to market values the book values which are available in considerable detail in the nonfinancial corporate and financial sectors. This difficulty is due to the lack of data for small subsectors on acquisition of assets and the fact that the smaller the sector, the less applicable are the available asset price indexes. The second reason is the lack of saving and equity financing data that are needed for a reasonably complete analysis of changes in net worth. However, these subsector data are used in calculating asset price indexes (Chapter 7) and leverage ratios (Chapter 8), which give some indication of the prospective change in net worth over a period.

The fact that sectoral balance sheets combine the accounts of a large number of economic units leads to another difficulty: the changing composition of a sector at successive balance sheet dates. Over any period of time some units that belong to a sector at the opening date disappear from it through death and retirement (in the household sectors), through dissolution (in business sectors), or through transfer to other sectors. Other units, newly formed during the period or transferred from other sectors, that were not included in the sector's opening balance sheets are covered by the closing balance sheets. The

change in net worth during any period, if it is derived from aggregate figures for separate assets and liabilities at the beginning and end of the period, is therefore the combination of (1) the change in the net worth of the units that remain in the sector throughout the period, (2) the difference between the closing net worth of the departing units and the initial net worth of the entering units, and (3) the changes during the period in the net worth of units that were members of the sector only for part of the period. Other things being equal, the longer the period, the shorter the typical life of a unit belonging to the sector, and the higher the entry and quit rates, the greater is the difference between the observed change in the net worth of the sector as a whole and the change in the net worth of the units belonging to the sector throughout the period. The difference is, therefore, very important for subgroups of individuals classified by net worth or other characteristics if the comparison is made over extended periods.

For an accurate measurement of changes in net worth and the possible effects of price level changes on them, separate figures would be needed for changes in the net worth of each of the following five groups: permanent members of the sector (in the group throughout the period), newly formed units (in demographic statistics, births), units transferring from other sectors (in-migrants), units transferring to other sectors (out-migrants), and units dissolved (deaths).

In the absence of separate figures for these five groups, it is sometimes difficult to understand the meaning of measured changes in a group's aggregate net worth. The difficulty is much less important for the national balance sheet because there the effects of internal migration among sectors offset each other. External migration, which remains relevant, is usually much smaller and statistical measurements are commonly available. Consequently, the measures of change in the aggregate net worth of individual sectors are subject to qualifications, which are more important the longer the interval between balance sheet dates and the higher the ratio of turnover of units within the sectors.

A further problem is that net worth can be calculated from either combined or consolidated balance sheets. Not only will the results differ—aggregate net worth will generally be smaller in the consolidated balance sheet—but the difference will vary according to the method of valuation used. These relations are illustrated in Table 23, which shows the effects of consolidation based on adjusted book values, as used here, and those based on alternative valuations.[1]

[1] In Table 23 the situation is illustrated by intercorporate holdings of equity securities. Similar problems and differences arise in all cases of claims and liabilities between two units, or sectors, whose accounts are to be combined rather than consolidated.

TABLE 23

EFFECT OF CONSOLIDATION OF INTERCORPORATE HOLDINGS OF EQUITY SECURITIES
(illustrative example)

	BEGINNING OF PERIOD			*End of Period*
	Book Value			
	Unadjusted (1)	Adjusted (2)	Market Value (3)	Book Value, Adjusted (4)
	ASSETS			
1. Claims	100	100	100	100
2. Tangible assets	100	200	150	400
3. Intercorporate equity holdings	10	50	40	117
4. Total, combined (lines 1 + 2 + 3)	210	350	290	617
5. Total, consolidated (lines 1 + 2)	200	300	250	500
	LIABILITIES AND NET WORTH			
6. Liabilities	150	150	150	150
7. Net worth (lines 4 — 6)	60	200	140	467
Attributable to other corps. (¼ of line 7)	15	50	35	117
Attributable to other holders	45	150	105	350
8. Total, combined	210	350	290	617
9. Total, consolidated	195	300	255	500
	LEVERAGE RATIOS[a]			
10. Combined	1.83	1.25	1.36	1.11
11. Consolidated	2.22	1.33	1.43	1.14

[a] The ratio of price-sensitive assets (lines 2 and 3) to net worth. For explanation and discussion, see Chapter 8.

The calculated change in net worth likewise depends on whether it is derived from a combined or a consolidated balance sheet even if consistent methods of valuation are used, as can be seen from columns 2 and 4 of Table 23. The change in the combined net worth, of course, differs from that in consolidated net worth by the amount of the change in the value of intragroup holdings.

For the same reason, combined national net worth (i.e., the sum of the consistently valued net worth of all sectors) exceeds consolidated national net worth, which is equal to the value of domestic tangible assets plus net foreign assets. The excess is equal to the value of domestic equities—corporate stock plus owners' equity in unincorporated business enterprises if they are treated as one or more separate sectors—held by domestic owners (disregarding valuation differences on domestically held domestic equities and claims).

Decomposition of Nominal Net Worth Changes

Changes in the net worth of sectors and subsectors during periods of marked price fluctuations are of considerable interest in themselves. To understand the forces responsible, however, it is necessary to decompose the observed changes into at least four components,[2] measuring net worth at each balance sheet date as the difference between the market or replacement value of assets and the value of liabilities, all expressed in current dollars. The components are: (1) saving or dissaving, defined as the excess of current income (excluding capital gains and losses) over current expenditures; (2) realized capital gains or losses; (3) transfers, i.e., transactions without economic countervalue that either increase or decrease assets or liabilities (such as gifts, inheritances, bequests, and debt forgiveness); and (4) changes in the prices of assets and liabilities still held at the balance sheet date, leaving unrealized capital gains or losses.

Using the symbols W_0 and W_1 for net worth at the beginning and the end of the period, s for saving, g for realized capital gains and losses, t for net transfers during the period, and U_0 and U_1 for unrealized capital gains and losses at balance sheet dates, we have, designating $U_1 - U_0$ as $\triangle U$,

$$W_1 = W_0 + s + t + g + \triangle U \tag{1}$$

In this equation s, g, t, and $\triangle U$ are taken as the net result of positive and negative transactions of the types indicated. They are, of course, the sum of corresponding items referring to different types of assets. Thus g is the result of subtracting realized capital losses on real estate, stocks, bonds, and other types of assets from realized capital gains on the same type of assets. The basic equation yields immediately

$$\triangle W = W_1 - W_0 = s + t + g + \triangle U \tag{2}$$

In the case of corporations, an additional term needs to be added, the net proceeds from the sale of equity securities, defined as the difference between the proceeds from the sale of new equity securities and the cost of repurchase or retirement. The basic equation for corporations then is, if e indicates net proceeds from equity securities:

$$W_1 = W_0 + e + s + t + g + \triangle U \tag{3}$$

In the further discussion s will be assumed to include e wherever appropriate.

For assets acquired out of saving, price changes after their acquisition are included in g or $\triangle U$, but not in s. This treatment is appropriate and parallel to the treatment of external financing, specifically the sale of equity securities by corporate issuers. Thus all capital gains or

[2] For a discussion of some of the problems involved, see Raymond W. Goldsmith, *A Study of Saving in the United States*, Princeton, 1955, Volume I, Chapter VIII.

losses, realized or unrealized, are treated equally, whether made on assets (or liabilities) held at the beginning of the period or on those acquired during the period through internal financing (saving), external financing (including issuance of equity securities), or transfers. The fact that some of these transactions (viz., saving, equity financing, and transfers) affect net worth, while others (debt financing) do not, is not a reason for differential treatment. Indeed, it is generally impossible in an accounting or economic sense to break down g and $\triangle U$ according to whether they originate in holding, saving, equity financing, and debt financing, as it is impracticable to make similar allocations for every switch in assets and liabilities.

The sum of realized capital gains and losses and of changes in unrealized capital gains and losses ($g + \triangle U$) can be further separated into four components: (1) the change in unrealized capital gains and losses on assets (and liabilities) held both at the beginning and the end of the period (designated by $\triangle U'$), which is entirely a reflection of external asset price movements; (2) unrealized capital gains and losses on assets acquired during the period and still held at the end of the period (U''); (3) the realized capital gains and losses on assets held at the beginning of the period and disposed of during the period minus the beginning-of-period unrealized gains and losses on these same assets ($g' - U'''$); and (4) capital gains or losses realized on assets acquired and sold during the period (g'').

We then have

$$\triangle W = s + t + \triangle U' + U'' + (g' - U''') + g'' \qquad (4)$$

$$= s + t + g' + g'' + (\triangle U' + U'' - U''') \qquad (5)$$

For broad sectors of the economy, both saving and unrealized capital gains can often be estimated. The latter are implicit in the perpetual inventory calculations which underlie tangible asset holdings. These capital gains are unrealized in a special sense: they may have been realized by individual units in the sector, but not by the sector as a whole, because the assets have never been sold outside the sector. For example, households often realize capital gains on homes by selling them. These sales are usually to other households, however, and the household sector as a whole thus does not liquidate its capital gain. These unrealized capital gains on tangible assets can be calculated as the difference between original cost and current values.[3] Similar, but more questionable estimates can be derived from some of the calculations of sectoral holdings of common stock.[4]

[3] From data in Raymond W. Goldsmith, *The National Wealth of the United States in the Postwar Period*, Princeton for NBER, 1962.

[4] A more reliable estimate of capital gains and losses and a breakdown into realized gains, unrealized gains on newly purchased securities, and gains on securi-

For these major sectors, then, the change in net worth can be thought of as

$$\triangle W = s + \triangle U' + U'' \qquad (6)$$

with transfers between sectors considered negligible (except in the case of some federal government disposal of assets) and realized capital gains considered to be eliminated by consolidation. In practice, there will be an unexplained residual due to the imperfections of both saving and capital gain estimates.

The operation of the various factors which affect net worth is illustrated by the hypothetical example of Table 24.

Deflation of Assets and Net Worth

Much economic analysis is conducted in "real" terms or constant prices, i.e., the prices of a specific base period, in order to eliminate the effects of the "veil of money." When an aggregate is involved, however, this procedure has no meaning unless the set of prices used is specified. This is particularly true when, as in the case of net worth, the object of measurement cannot be thought of as a physical quantity.

There are two ways of approaching the deflation of net worth or a stock of assets, each of which answers a different question. First, what has been the change in the physical quantity of assets or in the ability of the stock of assets to produce goods or yield services? Second, the question with which we are concerned here, what has been the change in purchasing power (with respect to goods in general) of a stock of assets or of net worth?

The first question is answered by specific-asset deflation, which involves expressing the value of each asset in terms of the base-year price of that same asset. The end-product, an index of the volume of assets, is designed not to reveal the effects of price change but to eliminate them. The quantity of assets is, by definition, unaffected by price changes. It is much easier to attribute a meaning to the specific-asset deflation of tangible assets than to the same process applied to monetary assets or liabilities. But the price index for assets can be used to deflate net worth if the object is to measure the purchasing power of net worth with respect to the particular stock of assets held in the base year.

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ties held throughout the period would require asset-by-asset information on the original cost and market value of holdings and on proceeds from sales. Virtually the only sector for which such information is publicly available is the life insurance company sector. But the material is so voluminous that no attempt has been made (in published form, at least) to classify and summarize the data in the way necessary for a decomposition of net worth changes.

TABLE 24

EFFECTS OF SAVING, TRANSFERS, AND CAPITAL GAINS ON NET WORTH
(illustrative example)

	Transactions			HOLDINGS AT MARKET VALUE							*Change in Net Worth*	
					Equities		*Tangible Assets*					
	Unit Price[a]	Number of Units	Value	Claims (incl. money)	No. of Units	Value	No. of Units	Value	Liabilities	Net Worth	Amount	Type[b]
Holdings, beginning of period	1			100	100	100	100	100	100	200		
Transactions:												
1. Sale of equity securities	1.25	40	50	150	60	75	100	100	100	225	10[c] 15[c]	G ΔU
2. Sale of tangible assets	1.5	10	15	165	60	75	90	135	100	275	5[d] 45[d]	G ΔU
3. Borrowing			20	185	60	75	90	135	120	275	0	
4. Acquisition of claims[e]			20	205	60	75	90	135	120	295	20	S
5. Purchase of tangible assets	2	15	30	175	60	75	105	210	120	340	45[d]	ΔU
6. Purchase of equities	3	15	45	130	75	225	105	210	120	445	105[c]	ΔU
7. Inheritance of cash			50	180	75	225	105	210	120	495	50	T
Holdings, end of period[f]	4[c] 3.5[d]			180	75	300	105	368	120	728	75[c] 158[d]	ΔU ΔU

[a] Price changes assumed to occur at time of transaction.
[b] G = Realized capital gains.
ΔU = Change in unrealized capital gains.
S = Saving.
T = Transfers.
[c] Equities.
[d] Tangible assets.
[e] Out of current saving.
[f] After further price changes.

The second question is answered by general deflation, deflation by some index of the general price level, such as the average price index underlying the deflated gross national product (the GNP deflator, i.e., the ratio of GNP in current prices to GNP in base-period prices) or, on the principle that consumption by individuals is the ultimate purpose of economic activity, by the Consumer Price Index.

The difference between the two methods may be illustrated by the example of a dealer in precious metals whose stock in trade, equal to his net worth, consists solely of gold. If the price of gold doubled while the prices of all other commodities remained unchanged, and the dealer continued to hold the same amount of gold, the absolute value of his assets would double. Using specific-asset deflation, we would find that his real assets (the amount of gold in his possession) remained unchanged. General price deflation, on the other hand, would show that his real assets, this time in terms of power to buy other goods, doubled. The dealer is now twice as rich, that is, he can sell his business for twice as much in terms of other goods or he can stay in business and expect to receive twice the real income (in terms of power to buy goods in general), if we assume that the profitability of his business—the ratio of income to capital—like that of all other businesses, is not changed as the result of the change in the price of his stock in trade. This is a measure of the effects of differential price change, and it is the answer to the question asked here.

As long as real assets are defined in terms of power to buy other goods, the superiority of the general deflation seems incontestable. But if the measurement of welfare is the object, the simplicity of the problem vanishes. If the pattern of asset holdings is fixed—if an increased power to buy other goods cannot be used freely—there may be no gain in welfare from relative improvement in a sector's asset price level. An example of this case is a national government that must hold a fixed amount of defense assets regardless of price. Nothing is gained from a rise in ordnance prices by a government which owns military equipment, if the government cannot substitute consumption or other assets for military assets.

Most deflations, like most discussions of real wealth, income, or wages, are confined to measuring changes in purchasing power, stopping short of welfare measurement. The same convention of general deflation is followed here. It may also be interpreted as treating all government and business as belonging ultimately to households.

Although general deflation has been used in this paper, the asset price indexes, discussed in Chapter 7, provide the data needed for specific deflation. That part of the change in real net worth which can be attributed to changes in asset prices (see Chapter 6) is the part which would be eliminated by specific-asset deflation.

Statistical Difficulties

In addition to the conceptual problems in measuring net worth and the influence of price changes on it discussed in the previous sections, there are substantial statistical difficulties. Most of these are caused by insufficiency of basic data and by the neglect which the study of national wealth and national balance sheets has suffered in recent decades. Although considerable, the statistical shortcomings are not such as to endanger the broad conclusions that can be drawn with appropriate care from the available national balance sheets and collateral material. Special attention needs to be given here only to the difficulties specifically connected with the estimation of sectoral and national net worth.

ALTERNATIVE ESTIMATES OF NET WORTH

Net worth is obtained for all sectors as the difference between the sum of the market value of all types of assets, separately estimated, and the comparable sum of all types of liabilities. It is thus affected by the net error involved in the estimates of total assets and total liabilities. For only one major sector—nonfinancial corporations—is it possible to derive a second independent estimate of the market value of net worth, namely, by calculating the market value of stock outstanding.[5] These two estimates cannot be expected to coincide. There is no reason to assume that the market value of a corporation's stock should be equal to the figure obtained by deducting liabilities (essentially at book value) from the current value of the corporation's assets, specifically the replacement cost of its tangible assets and the market or book value of its financial assets.[6]

While all main tabulations use the net worth of corporations obtained by the latter method because it is comparable to the calculation of net worth in other sectors, the estimate derived from stock prices is shown in Table 25. This table also shows the alternative (and methodologically inconsistent) estimate of national net worth in which the net worth of corporations is derived from stock market valuations rather than adjusted book values, as well as a few other figures that are

[5] If over-the-counter quotations are used, the method could also be applied to some subsectors of the financial sector—primarily commercial banks and property insurance companies—but it still could not be applied to other large subsectors, such as mutual savings banks, savings and loan associations, and life insurance companies.

[6] For a discussion of this valuation difference which is important in balancing the sectoral balance sheet of corporations as well as the national balance sheet, see R. W. Goldsmith, "Measuring National Wealth in a System of Social Accounting," *Studies in Income and Wealth 12*, New York, NBER, 1950, pp. 40-41.

affected by this substitution. The difference between these two valuations of corporate net worth has occasionally been substantial, particularly after large stock price movements.

SECTORAL ESTIMATES OF NET WORTH

The estimates of sectoral net worth that can now be derived by the balance sheet approach suffer from two specific statistical deficiencies: overaggregation and disregard of net transfers of tangible assets among sectors.

At the present time, fairly complete balance sheets can be built up from aggregative data for only seven sectors, namely, nonfarm households, agriculture, unincorporated business, nonfinancial corporations, finance, state and local governments, and the federal government. Of these, at least one—unincorporated business—is extremely weak. With some additional effort, unfortunately impossible in this study, one could segregate nonprofit institutions from households, thus making the latter sector more homogeneous; split nonfarm business into about half a dozen main sectors, e.g., manufacturing and mining, railroads, other public utilities, trade and service, real estate, and miscellaneous; and separate state from local governments. The financial sector has been more finely subdivided in the Federal Reserve Board's statistics of flows of funds, in *Financial Intermediaries,* and in other parts of this volume. Such a finer sectoring of the financial field, however, was not required here.

These broad sectors obviously combine heterogeneous units and groups of units, particularly in the nonfarm household and the nonfinancial business sectors. To study the effects of price level changes on net worth, it would be desirable to have separate sectoral balance sheets for home-owners and renters, for households with different income and net worth and with heads of different age, occupation, race, and other characteristics, for several dozen industrial groups, for business enterprises of different sizes, and possibly for enterprises that are primarily creditors or debtors or have other characteristics that may be relevant to their experience during inflation and deflation. But only a small fraction of the desirable balance sheets for smaller sectors are presently available, mainly from sample surveys, and these are used in the discussion of leverage ratios in Chapter 8.

One of the characteristics of the national balance sheet approach is that the national total for a given asset or liability item is often more reliable than the estimates for most of the sectors. This is the case, of course, when there is a reasonably reliable estimate available for the national total that is not derived as the sum of sectoral figures and that cannot be easily allocated among sectors. This situation will be en-

TABLE 25

NET WORTH UNDER ALTERNATIVE DEFINITIONS: CORPORATIONS, NONFARM HOUSEHOLDS, AND THE NATION, 1900-58
(billion dollars)

	NET WORTH OF CORPORATIONS				*National Net Worth*		*Nonfarm Household Net Worth*	
			Difference					
	Adjusted Book Value (1)	Market Value (2)	Absolute (3)	Per Cent of Market Value (4)	Corporations at Adjusted Book Value (5)	Corporations at Market Value (6)	Corporate Stock at Adjusted Book Value (7)	Corporate Stock at Market Value (8)
1900	22.2	14.7	7.5	51.0	119.7	112.2	62.5	57.0
1912	37.7	39.3	—1.6	—4.1	213.5	215.1	111.0	112.2
1922	95.1	76.1	19.0	25.0	447.3	428.3	263.2	249.3
1929	146.8	187.5	—40.7	—21.7	617.0	657.7	376.2	406.2
1933	99.8	101.7	—1.9	—1.9	447.7	449.6	280.2	281.3
1939	99.3	101.5	—2.2	—2.2	515.0	517.2	339.2	340.8
1945A	164.6	151.3	13.3	8.8	775.4	762.1	615.7	605.5
1945B	180.5	148.4	32.1	21.6	786.7	754.6	616.3	592.2
1949	281.7	148.7	133.0	89.4	1,261.4	1,128.4	860.1	761.9
1953	388.2	220.9	167.3	75.7	1,706.0	1,538.7	1,113.5	991.3
1956	501.3	386.3	115.0	29.8	2,087.5	1,972.5	1,344.1	1,259.8
1958	569.0	470.6	98.4	20.9	2,345.3	2,246.9	1,497.2	1,425.5

SOURCE TO TABLE 25

Col. 1: Sum of equities of nonfinancial corporations, commercial banks, investment companies, life, fire, marine, casualty, and miscellaneous insurance companies, and finance companies. 1900-45A: Vol. II, Table III-4b, and Goldsmith, *Financial Intermediaries in the American Economy Since 1900* (Princeton for NBER, 1958), Tables A-3, A-8, A-12, A-13, A-21, A-25, A-26, and A-27.
1945B-58: Vol. II, Tables III-4, III-5c, III-5f, III-5h, and III-5l.

Col. 2: 1900-45A: *Study of Saving*, sum of Vol. III, Table W-18, lines II-15 and II-16, and Vol. I, Table K-6, lines 4 and 5 (1945 assumed equal to 1946) minus Table K-7, line 5 (except 1900; Table K-5, col. 1). For 1933, U.S. holdings of foreign stock were assumed equal to foreign holdings of U.S. stock.
1945B-58: Vol. II, sum of Tables IV-b-16, line 10, and IV-b-17, line 11.

Col. 3: Col. 1 minus col. 2.

Col. 4: Col. 3 divided by col. 2.

Col. 5: Col. 6 plus col. 3.

Col. 6, 8: Vol. II, Tables I and Ia.

Col. 7: Col. 8 plus the difference between adjusted book and market value of nonfarm household stock holdings. The adjusted book value is estimated by multiplying the market value (from Vol. II, Tables I and Ia) by the ratio of col. 1 to col. 2.

countered primarily in those cases where the same type of asset and liability is found in the balance sheet of several sectors, none of which provides direct information of its holdings. For example, the national total of currency outstanding is fairly accurately known from primary statistics,[7] but the allocation of this total among sectors is haphazard and subject to a large margin of error because virtually no sector reports currency holdings separately in its own balance sheets or collateral material. Similarly, an estimate by the perpetual inventory method of the total stock of automobiles in the United States is subject to a smaller margin of error than an allocation of the stock among nonfarm households, agriculture, nonfinancial corporations, finance, and government, all of which may be assumed to own automobiles but none of which report the holdings separately. Thus the relative margin of error is probably larger for the sectoral holdings of most types of assets and liabilities than it is for the national total. Exceptions occur mostly among financial assets and liabilities, and here again chiefly in the financial and nonfinancial corporation sectors—the only two sectors for which fairly comprehensive and reliable totals of intangible assets and liabilities can be derived from their own balance sheets.

The second statistical deficiency—neglect of net transfers of tangible assets among sectors—affects the estimates of tangible assets held by individual sectors, leading to errors which, while sometimes serious for short-term analysis, are not likely to have a significant effect. Under the perpetual inventory method, the estimates of the different types of reproducible tangible assets are derived, it will be recalled, either by distributing the national total for a given type of asset among sectors by an indirectly derived and often arbitrary allocation or, preferably, by building up the estimates from the sector's expenditures on the asset in question. In neither case is specific account taken of the transfer of such assets after their original acquisition. In principle, of course, allowance should be made for such transfers, but unfortunately statistical information on their volume and movement is entirely lacking in some cases and incomplete and unreliable in most others. Some of these transfers, however, are known to be substantial and to tend in the same direction for protracted periods. Rough estimates of their orders of magnitude have occasionally been made.[8] It might even be possible to produce estimates for the main transfers involved, which, despite their shortcomings, would be preferable to the present entire neglect of these transactions.

[7] The qualification "fairly" could be omitted if it were not that a reputedly small, but not exactly known, proportion of total currency issued is held abroad or has been destroyed.

[8] See, for instance, *Study of Saving*, Vol. I, p. 769; Vol. II, p. 452.

There is, for instance, little doubt that over the postwar period as a whole and for most individual years, there have been large sales of farm land to nonagricultural sectors for transformation into suburban land underlying residential, commercial, or industrial structures, for use as roads, or for other public purposes. These sales have probably been taken into account indirectly in the estimates of the value of agricultural land prepared by the Department of Agriculture, but it was not possible to make the appropriate explicit adjustment for the acquisition of such former farm land in the balance sheets of the other sectors involved. For some sectors these adjustments are probably implicitly, although haphazardly, made in the estimates used. This is the case for those types of land whose value is estimated as a proportion of the structure erected on the land. Thus, if former farm land is subdivided and homes built on the acreage, the value of this land is now implicitly included in the estimate of total residential land, since the latter is obtained as a fixed proportion of the structure value of residences. However, the value at which the piece of land in question is added to the total of residential land is not the price which it had when going out of farm use (presumably the price at which it was included in the farm land total), nor the price at which it actually was sold by the last farm owner. The new value, at which it now is carried in the national balance sheet, is in all likelihood considerably higher, including not only the net investment needed to turn raw land into building lots, but also both realized and unrealized capital gains as well as actual expenditures by subdividers, builders, and others. Such changes of land use thus lead to an increase in the estimates of national wealth, and national net worth, not only in current values, as is entirely consistent with national accounting theory, but also in constant values.

Another transfer of this type, which might have been taken into account explicitly, was the sale of war production facilities by the federal government to private business.

There are, finally, the transfers inherent in the incorporation of unincorporated business enterprises or their absorption by corporations, which have been going on for most of the past six decades and affect intangible as well as tangible assets.

The unavoidable neglect of these transfers introduces inaccuracies in the estimates of net worth changes of some sectors and in the decomposition of such changes. It is unlikely that including these transfers would greatly change the picture now presented for any sector, except possibly agriculture and unincorporated business. The national totals, of course, are affected very little if at all by the omission of these transfers.