

# **National Measures of Investment and Saving Reconciled**

Peter D. Ivory, John E. Dawson

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## **PREFACE**

This report displays in a series of accounting tables the interconnections between the National Income and Product Accounts (NIPA) and the Flow of Funds Accounts (FoF) measures of investment and saving. In addition, the confusion over NIPA and FoF measures of personal saving is resolved. The report is intended to serve as a technical guide to users of both accounting systems who are interested in definitional and conceptual differences among the various measures of investment and saving.

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## SUMMARY

The United States economy is a complex mix of the real and monetary economies. In the real economy, goods and services are produced, acquired, and used. In the monetary economy, assets and liabilities are created, acquired, and expended. The two economies interact to facilitate the exchange among parties of real goods and services without resort to barter. The monetary economy operates to facilitate various actions among parties beyond the process of exchange of real goods and services. Empirical studies of the interaction between these two economies requires data for both the real and monetary economies. Such data exists, but it exists largely as two separate accounting systems with murky linkages between the two systems.

The two major national accounting systems of the United States are the National Income and Product Accounts (NIPA) and the Flow of Funds Accounts (FoF). The first system is maintained by the Department of Commerce, and the second is maintained by the Federal Reserve. This report presents a series of accounting crosswalks which display the accounting interconnections between NIPA and FoF measures of investment and saving.

These two national accounts have different orientations which are designed to be complementary. The content and orientation of each accounting system is described accurately by its title. NIPA is designed to record the product and income flows of the entire economy. FoF is designed to record the financial flows of the entire economy.

Despite the importance of analysis which integrates product, income, and financial flows and the fact that FoF accepts NIPA nonfinancial data, the interconnecting points between the two accounts are imperfectly understood. For instance, the Office of Management and Budget provides special analyses of the federal budget which relate parts of the budgets to NIPA and other parts to FoF.<sup>1</sup> However, the connection of these budgetary parts is not well established because the necessary bridgework between NIPA and FoF is unclear.

The major differences between NIPA and FoF are as follows:

- NIPA attributes all domestic investment to corporate and noncorporate business. FoF allocates domestic investment to four business sectors and to households.
- NIPA treats consumer durables as a component of consumption. FoF treats consumer durables as investment by the household sector. Both FoF gross investment and gross saving are increased accordingly.
- NIPA gross private domestic investment is limited to tangible investment. FoF supplements tangible domestic investment with "net financial investment" resulting in "gross national investment" composed of both tangible investment (including consumer durables) and the domestic portion of net financial investment.
- NIPA net foreign investment is a measure from the current account—exports less imports and net transfer payments. In FoF, NIPA net foreign investment enters the account as net foreign saving, i.e., FoF reverses the sign of NIPA net foreign investment. The FoF measure of net foreign investment is a measure of capital flows.
- In NIPA the statistical discrepancy has the sign of net sources of funds, i.e., enters on the saving side of the account. The discrepancies in FoF have the sign of net uses of

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<sup>1</sup>See Special Analyses B and F, *Special Analyses, Budget of the United States Government, FY 1985*.

funds. Thus the Federal Reserve reverses the sign of the NIPA discrepancy in the FoF account.

These differences are sufficient to reconcile NIPA and FoF concepts of gross investment and saving. At the most aggregate level, FoF gross investment minus consumer durables and plus NIPA net foreign investment equals NIPA gross investment. FoF gross saving minus consumer durables, plus NIPA statistical discrepancy and NIPA net foreign investment equals NIPA gross saving plus NIPA statistical discrepancy. At the domestic level (excluding the foreign sector), FoF national gross investment minus consumer durables and net financial investment (the domestic total) equals NIPA gross private domestic investment. FoF national gross saving minus consumer durables equals NIPA gross saving.

The series of accounting tables presented herein crosswalk NIPA and FoF measures of investment and saving and resolve the confusion over the NIPA and FoF measures of personal saving. This report is intended to serve as a technical guide to users of both accounting systems who are interested in definitional and conceptual differences among the various measures of investment and saving.



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## I. INTRODUCTION

The two major national accounting systems of the United States are the National Income and Product Accounts (NIPA) and the Flow of Funds Accounts (FoF). The first system is maintained by the Department of Commerce, and the second is maintained by the Federal Reserve. This report presents a series of accounting crosswalks which display the accounting interconnections between NIPA and FoF measures of investment and saving.

These two national accounts have different orientations that are designed to be complementary. The content and orientation of each accounting system are described accurately by the table's title. NIPA is designed to record the product and income flows of the entire economy. It is a double-entry national account with product and income as the two sides of five major control accounts. The product and income sides of each major account must be equal for the account to balance. FoF is designed to record the financial flows of the entire economy. It is a double-entry national account with sources and uses of funds as the two sides of its major control accounts. Sources must equal uses of funds for each account to balance. In addition, FoF links financial activity flows with nonfinancial activity flows of NIPA.

The linkage between these two national accounting systems occurs across the accounting constraint of investment equals saving. Both systems use the equality of investment and savings as an accounting identity. However, each system defines investment and savings differently, in aggregate and by sector of the economy. For instance, total investment is smaller in NIPA than in FoF, but business physical investment is greater in NIPA than in FoF. The amounts for government saving are different; the amounts for personal savings are different; the amounts for net foreign investment are different; and the amounts for statistical discrepancy are different.

Despite the importance of these two major national accounting systems, the points of connection between the two systems are imperfectly understood. For instance, economists of the Department of Commerce and the Federal Reserve have been unable to explain the differences between NIPA and FoF measures of personal saving.<sup>1</sup> The existence of unreconciled accounting relationships between NIPA and FoF is an anathema to integrated analysis of income, product, and financial flows. The Office of Management and Budget provides special analyses of the federal budget which relate parts of the budgets to NIPA and other parts to FoF.<sup>2</sup> However, the connection of these budgetary parts is not well established because the necessary bridgework between NIPA and FoF is unclear.

The accounting relationships between NIPA and FoF have been published in various reports by the Federal Reserve.<sup>3</sup> A clear presentation of these accounting relationships requires an understandable format and a base time period. The format used in this paper is a series of crosswalk-accounting tables. A crosswalk is a listing of the elements of two separate accounts for a given time period. Standard accounting tables are two dimensional with accounting categories presented as row entries and time as column entries. The crosswalks used here

<sup>1</sup>"Widely Disparate Saving Statistics Given by Fed, Commerce Officials," *The Wall Street Journal*, November 22, 1983, p. 37 (reproduced as App. A).

<sup>2</sup>See Special Analyses B and F, *Special Analyses, Budget of the United States Government, FY 1985*.

<sup>3</sup>See *Introduction to the Flow of Funds*, Board of Governors of the Federal Reserve System, Washington, D.C., June 1980; "A Quarterly Presentation of Flow of Funds, Saving, and Investment," *Federal Reserve Bulletin*, Board of Governors of the Federal Reserve System, August 1959, pp. 828-859; "A Flow-of-Funds System of National Accounts, Annual Estimates, 1939-54," *Federal Reserve Bulletin*, October 1955, pp. 1085-1124.

present investment and saving categories as row entries and NIPA total plus FoF sectors of the economy as column entries. Such a presentation necessitates time to be held constant. The year 1976 is chosen as the base time period because the current set of illustrative control accounts for NIPA are for the year 1976.<sup>4</sup> NIPA is the primary and probably more familiar national accounting system of the United States. Thus this report provides a set of crosswalk tables between NIPA and FoF measures of investment and saving for the year 1976.

The material herein is given in six sections and two appendixes. First, the gross saving and investment account of NIPA is presented, and the basic differences between this account and FoF are outlined. Second, gross investment is crosswalked between NIPA and FoF. Third, gross saving is crosswalked between NIPA and FoF. Fourth, these two crosswalks are used to reconcile gross investment and saving in and between both systems, demonstrating the equality of gross investment and savings *in* and *between* both systems. Fifth, the household sector is developed, including the explicit treatment of gross and net investment and saving for the "households" and "individuals" accounts, and herein the puzzle over the different measures of personal savings is resolved. Sixth, the paper presents the historical record for various saving measures. Appendix A reproduces *The Wall Street Journal* article on the differences between NIPA and FoF measures of personal saving. Appendix B provides FoF computer tape codes for the line items in the tables so that the tables shown here are entirely reproducible by other researchers or users of these national accounting systems.

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<sup>4</sup>*The National Income and Product Accounts of the United States, 1929-1976 Statistical Tables*, Department of Commerce, Washington, D.C., 1981, pp. xvi-xvii.



## II. NIPA AND FoF GROSS INVESTMENT AND SAVING CONTRASTED

The NIPA system is based on five summary accounts—a national income and product account and four subordinate accounts for personal income and outlay, government receipts and expenditures, foreign transactions, and gross saving and investment. This last account is shown for 1976 in Table 1. It is exactly the same as the account in NIPA publications except:

- The amounts are shown in millions of dollars rather than tenths of billions.
- The amount for gross private domestic investment has been shown with five subordinate lines of detail.

These additions to the illustrative account facilitate the use of NIPA data in later tables.

Based on the relationships specified in Table 1, the most aggregate relationship between NIPA and FoF gross investment and gross saving can be expressed with five equations as:

$$\text{GIN} = \text{GPDIN} + \text{NFIN} \quad (1)$$

where GIN is gross investment (NIPA);  
GPDIN is gross private domestic investment (NIPA);  
and NFIN is net foreign investment (NIPA).

$$\text{GIN} = \text{GSN} + \text{SDN} \quad (2)$$

where GIN is gross investment (NIPA);  
GSN is gross saving (NIPA);  
and SDN is the statistical discrepancy (NIPA).

$$\text{GIF} = \text{GSF} - \text{SDN} \quad (3)$$

where GIF is gross investment (FoF);  
GSF is gross saving (FoF);  
and SDN is the statistical discrepancy (NIPA).

$$\text{GIF} = \text{GIN} - \text{NFIN} + \text{CDN} \quad (4)$$

where GIF is gross investment (FoF);  
GIN is gross investment (NIPA);  
NFIN is net foreign investment (NIPA);  
and CDN are consumer durables (NIPA).

$$\text{GSF} = \text{GSN} + \text{SDN} - \text{NFIN} - \text{SDN} + \text{CDN} \quad (5)$$

where GSF is gross saving (FoF);  
GSN is gross saving (NIPA);  
SDN is the statistical discrepancy (NIPA);  
NFIN is net foreign investment (NIPA);  
and CDN are consumer durables (NIPA).

Table 1  
NIPA GROSS SAVING AND INVESTMENT ACCOUNT, 1976  
(Millions of dollars)

1. Gross private domestic investment .....	257,867	3. Personal saving .....	82,491
Fixed investment		4. Wage accruals less disbursements .....	0
Nonresidential .....	174,069	5. Undistributed corporate profits with inventory valuation and capital consumption adjustments .....	36,897
Structures .....	58,783	6. Undistributed corporate profits .....	65,115
Producers' durable equipment .....	115,286	7. Inventory valuation adjustment .....	-14,679
Residential .....	71,975	8. Capital consumption adjustment .....	-13,539
Change in business inventories .....	11,823	9. Capital consumption allowances with capital consumption adjustment .....	175,018
2. Net foreign investment .....	5,127	10. Government surplus or deficit (-), national income and product accounts .....	-36,514
		11. Capital grants received by the United States (net) .....	0
		12. Statistical discrepancy .....	5,102
GROSS INVESTMENT .....	262,994	GROSS SAVINGS AND STATISTICAL DISCREPANCY .....	262,994

Equation (1) restates the definition of NIPA gross investment, and Eq. (2) expresses the NIPA accounting identity of gross investment equals gross saving plus the statistical discrepancy. A comparison of Eq. (2) with Eq. (3) reveals a fundamental difference between NIPA and FoF. In NIPA the statistical discrepancy has the sign of net sources of funds, i.e., enters on the saving side of the account. Discrepancies in FoF have the sign of net uses of funds. The Federal Reserve reverses the sign of the NIPA discrepancy in the FoF account. So in FoF Eq. (3) is specified as: gross saving equals gross investment *plus* the NIPA statistical discrepancy.

Equations (4) and (5) define FoF gross investment and saving in terms of NIPA accounting entries. By the addition of consumer durables, FoF gross investment is a more inclusive measure of physical investment than the comparable concept in NIPA. Whereas NIPA treats consumer durables as a component of consumption, FoF treats consumer durables as investment by the household sector. Both FoF gross investment and gross saving are increased accordingly (by \$156,831 million in 1976).

Equation (5) appears as if it is determined by the relationships specified in Eqs. (1) through (4); such an appearance is deceiving. The expression of FoF gross saving in terms of NIPA accounting entries requires the acceptance of the NIPA statistical discrepancy convention. If the statistical discrepancy is specified to have the sign of a net source of funds, then the form of Eq. (3) will be the same as Eq. (2)—in both cases, gross investment equals gross saving *plus* the NIPA statistical discrepancy.<sup>1</sup> With the same treatment of the NIPA statistical discrepancy, the derivation of Eq. (5) is straightforward.

An inspection of Eqs. (1) with (4) and (5) indicates that the two national accounting systems treat NIPA net foreign investment differently. The NIPA measure of "net foreign investment" (Table 1, line 2) is derived from the current account in the Department of Commerce's international transaction statement. In FoF, NIPA "net foreign investment" enters the account as "net foreign saving," i.e., FoF reverses the sign for NIPA "net foreign investment." The FoF measure of "net foreign investment" is also derived from the international transaction statement, except it is a measure of capital flows.

The major contribution of FoF must be expressed in terms of FoF entries. FoF supplements tangible domestic investment of NIPA with net financial investment. To enhance understanding of financial flows, the Federal Reserve allocates domestic investment to four business sectors (farm, nonfarm noncorporate business, nonfarm nonfinancial corporate, and financial business) and to households. The sum of domestic tangible investment and domestic net financial investment results in the FoF measure of gross national investment. FoF gross national investment plus FoF net foreign investment equals FoF gross investment in Eq. (4).

To provide a clear tracking of these significant differences between NIPA and FoF, a step-by-step process is followed, that is, investment and savings are crosswalked separately and then reconciled in and between both systems.

<sup>1</sup>Since in FoF the NIPA statistical discrepancy has the opposite sign from that in NIPA, Eq. (3) can be rewritten following the NIPA convention as:  $GIF = GSF - (-1)SDN$  or  $GIF = GSF + SDN$ .

### III. THE GROSS INVESTMENT CROSSWALK

The gross investment crosswalk in Table 2 presents the elements of NIPA and FoF investment. The first 11 columns display FoF classifications.<sup>1</sup> The 12th column displays the NIPA total. The data in the 12th column are from the left side of Table 1. Table 2 is constructed such that the row entries add across to the FoF national total, FoF total, and to the NIPA total where appropriate. In addition, the column entries add down to row 4 and row 10. The sector totals on row 4 are for comparison with row 10—there are no counterpart entries in either NIPA or FoF.

Rows 1 through 4 display the FoF allocation of NIPA gross private domestic investment of \$257,867 million in 1976 among five FoF sectors. In NIPA, all investment is attributed to either corporate or noncorporate business. Whereas most of these entries are self-explanatory, two entries are not. The \$5,713 million investment by households in nonresidential plant and equipment represents investment by nonprofit associations (row 1, column 1).<sup>2</sup> Second, FoF total residential investment falls \$3 million short of that in NIPA (row 2, columns 11 and 12). Such minor discrepancies between FoF-reported and historical NIPA data occur across time in FoF.<sup>3</sup> Although the discrepancies are small, reconciliation of NIPA and FoF requires that common entries across accounts with differing amounts be identified and resolved. In the text, published Department of Commerce NIPA data will be reconciled with FoF data.

Rows 5 and 6 complete the NIPA totals for gross investment. In FoF, NIPA net foreign investment<sup>4</sup> enters on the saving side of the account with the sign reversed.

Rows 7 through 10 complete the FoF totals for gross investment. Row 7 adds consumer durables (this item is included in NIPA as consumption) to the household sector as an additional category of tangible investment. In 1976, this definitional difference between the two accounts increased FoF gross investment by \$156,831 million over NIPA gross investment. Row 8 is a major contributor of FoF, involving data not available in NIPA. Net financial investment is the difference between the net acquisition of financial assets and the net increase in financial liabilities. The sum of the net financial investment (row 8) of each domestic sector plus the unallocated (column 8)<sup>5</sup> is exactly offset by foreign net investment<sup>6</sup> (column 10) at the level of total investment (column 11). So while net financial investment increases FoF gross national investment by \$14,747 million in 1976, FoF gross investment is unchanged. The

<sup>1</sup>Column 11 is derived from columns 9 and 10. In principle FoF has an all-sector total column, although there are no code numbers for such column entries in the FoF computer tape documentation. *Flow of Funds Table Codes*, Division of Research and Statistics, Board of Governors of the Federal Reserve System, Washington, D.C., September 1981.

<sup>2</sup>The inclusion of nonprofit associations in the household category is an extension of a NIPA convention. In NIPA the definition of persons includes personal trusts, nonprofit associations, and private noninsured welfare funds. See *The National Income and Product Accounts of the United States*, op. cit., p. xi. For a detailed definition of households in FoF, see *Introduction to the Flow of Funds*, op. cit., p. 32.

<sup>3</sup>These discrepancies occur after the Federal Reserve added quarterly to the annual FoF data. The Federal Reserve recognizes that such discrepancies exist and explains that they are largely caused by rounding error and occasionally by Department of Commerce revisions not assimilated in FoF.

<sup>4</sup>This measure of foreign investment is derived from the current account in the Department of Commerce's international transaction statement.

<sup>5</sup>The unallocated amount of \$8,402 million of net financial investment in 1976 is the FoF net financial statistical discrepancy.

<sup>6</sup>FoF net foreign investment is derived from the capital-account flows in the Department of Commerce's international transaction statement.

Table 2

INVESTMENT, 1976  
(Millions of dollars)

Row	Flow of Funds											NIPA Total 12
	1	2	3	4	5	6	7	8	9	10	11	
	House- holds	Farm Busi- ness	Non- farm corpo- rate Busi- ness	Non- farm finan- corpo- rate Corpo- rate	Finan- cial Busi- ness	State and Local Govern- ment	Federal Govern- ment	Un- allo- cated	National Total	Net Foreign	Total	
1. Nonresidential plant and equipment	5,713	13,802	18,323	129,015	7,216				174,069		174,069	174,069
2. Residential	60,608	1,103	7,234	2,485	542				71,972 <sup>a</sup>		71,972 <sup>a</sup>	71,975
3. Change in business inventories		-2,049	1,027	12,845					11,823		11,823	11,823
4. Gross private domestic investment (NIPA)	66,321	12,856	26,584	144,345	7,758				257,864		257,864	257,867
5. Net foreign investment (NIPA)												5,127
6. Gross investment (NIPA)												262,994
7. Consumer dur- ables	156,831								156,831		156,831	
8. Net financial investment (FoF)	87,903	-1,781	-360	-23,135	6,960	-4,637	-58,605	8,402	14,747	-14,747	0	
9. Mineral rights from U.S. Govt. (FoF)				3,973			-3,973		0		0	
10. Gross invest- ment (FoF)	311,055	11,075	26,224	125,183	14,718	-4,637	-62,578	8,402	429,442	-14,747	414,695	

<sup>a</sup> NIPA and FoF total residential investment often differs by several million dollars. In 1976, the difference is \$3 million.

concept of net financial investment in FoF is based upon the fundamental rule that for each lender there is a borrower. The offsetting transactions of corporate purchases and government sales of mineral rights are represented on line 9.

Each column entry in row 10 equals the entry in row 4 plus the sum of the entries in rows 7, 8, and 9. The summations in row 10 are gross investment for each FoF sector, unallocated investment (column 8), FoF gross national investment (column 9), and FoF gross investment (column 11). FoF gross national investment is the FoF equivalent concept of gross private domestic investment in NIPA. FoF gross investment is equivalent to gross investment in NIPA, i.e., gross private domestic investment plus net foreign investment. The major distinction between FoF gross national investment and FoF gross investment is that for the former net financial investment is a significant entry, whereas for the latter net financial investment is constrained to equal zero.

#### IV. THE GROSS SAVING CROSSWALK

The gross saving crosswalk is presented in Table 3. The columnar format is exactly the same as the preceding table. The data in the last column are from the right side of Table 1. The row entries sum horizontally to FoF national total, FoF total, and NIPA total where appropriate. The column entries sum down to row 10, a subtotal reference line for FoF columns, and to row 17.

Rows 1 through 9 display the FoF allocation of NIPA gross saving among the FoF designated sectors. Row 2 wage accruals and row 9 capital grants are excluded from the FoF definition of saving.

Rows 10, 11, and 12 complete the NIPA totals for gross saving and gross saving plus the NIPA statistical discrepancy. Compare these entries with those in Table 1. These rows illustrate the NIPA convention of adding the statistical discrepancy to gross saving.<sup>1</sup>

Rows 13 to 16 are distinctly FoF items of saving. Row 13 illustrates the FoF convention of defining NIPA "net foreign investment" to be a source of saving (the sign is reversed from that in Table 1). This entry within FoF is referred to as the foreign current account balance. Consumer durables (row 14) are a component of FoF household savings. Since household investment is increased by defining these durables as investment rather than as consumption, household savings must be increased accordingly. Row 15 represents a credit imputed to the household sector from government employer contributions to government employee pension and insurance funds. Row 16 represents a credit to the household sector for capital gain dividends of investment companies.<sup>2</sup>

Row 17 records the gross saving (FoF) for each sector and for the economy. NIPA and FoF measures of gross saving differ in that FoF includes both consumer durables and NIPA "net foreign investment" as saving.<sup>3</sup> In 1976 FoF gross saving was \$151,704 million greater than NIPA gross saving (\$156,831 million of consumer durables plus -\$5,127 million of the foreign current account balance).

By comparing the last line of Table 3 with that of Table 2, the reader will see that gross investment equals gross saving for only two FoF sectors and is not equal for the economy as a whole. The difference between gross savings and investment of Tables 2 and 3 will be resolved in the next section of this report.

<sup>1</sup>Here the statistical discrepancy enters the account as a net source of funds.

<sup>2</sup>These capital gain dividends are first counted as undistributed corporate profits for financial business. Another nuance of the financial business sector in both NIPA and FoF is that this sector includes the Federal Reserve and federally sponsored credit agencies.

<sup>3</sup>For an alternative representation of this relationship between NIPA and FoF gross saving, refer to Eq. (5) in Section II.

Table 3  
SAVINGS, 1976  
(Millions of dollars)

Row	Flow of Funds											NIPA Total 12
	House- holds 1	Farm Busi- ness 2	Non- farm Non- corpo- rate Busi- ness 3	Non- farm Non- corpo- rate Corpo- rate 4	Finan- cial Busi- ness 5	State and Local Govern- ment 6	Federal Govern- ment 7	Un- allo- cated 8	National Total 9	Net Foreign 10	Total 11	
1.	Personal saving	82,491							82,491		82,491	82,491
2.	Wage accruals less disbursements (NIPA)							0				0
3.	Undistributed cor- porate profits (NIPA)		103		58,183	6,829			65,115		65,115	65,115
4.	Inventory valuation adjustment (NIPA)				-14,679				-14,679		-14,679	-14,679
5.	Capital consumption adjustment (NIPA)		-170		-12,866	-503			-13,539		-13,539	-13,539
	Capital consumption allowances with CCAdj											
6.	Corporate		1,200		103,570	5,091			109,861		109,861	109,861
7.	Noncorporate	28,991	9,942	26,224					65,157		65,157	65,157
8.	Government surplus or deficit (NIPA)						16,569	-53,083	-36,514		-36,514	-36,514
9.	Capital grants re- ceived by the United States								0			0
10.	Gross saving (NIPA)	111,482	11,075	26,224	134,208	11,417	16,569	-53,083	257,892		257,892	257,892
11.	Statistical dis- crepancy (NIPA)											5,102
12.	Gross saving plus statistical dis- crepancy (NIPA)											262,994
13.	NIPA "net foreign investment" (sign reversed)									-5,127		
14.	Consumer durables	156,831							156,831		156,831	
15.	Govt. pension and insurance (FoF)	17,658					-12,919	-4,739	0		0	
16.	Capital gain divi- dends of invest- ment comp (FoF)	470				-470			0		0	
17.	Gross saving (FoF)	286,441	11,075	26,224	134,208	10,947	3,650	-57,822	0	414,723	-5,127	409,596



## V. GROSS INVESTMENT AND GROSS SAVING RECONCILIATION

- $GIN = GPDIN + NFIN$  (1)
- $GIN = GSN + SDN$  (2)
- $GIF = GSF - SDN$  (3)
- $GIF = GIN - NFIN + CDN$  (4)
- $GSF = GSN + SDN - NFIN - SDN + CDN$  (5)

Equations (1) through (5) from Section II reconcile NIPA and FoF gross investment and gross saving. This reconciliation is a final product of this section. Before NIPA and FoF can be reconciled within the accounting discipline, the account for each FoF sector must be balanced.

In this section, the preceding crosswalks are used to reconcile investment and saving in and between NIPA and FoF, that is, to satisfy the accounting identity of their equality. Equation (2) displays the familiar NIPA accounting relationship between gross investment and gross saving, i.e., gross investment equals gross saving plus (NIPA) statistical discrepancy. The linkage between NIPA and FoF across investment and then across saving has been specified in the preceding two sections. The task here is to explicitly demonstrate how the FoF account balances and to demonstrate the linkages from this balance with NIPA gross investment, NIPA gross saving, and NIPA statistical discrepancy.

This task can only be achieved when the accounts are *exactly* balanced. Not only must each national account satisfy all of its accounting constraints, but also all of the common elements between NIPA and FoF must either be equal or separately itemized before the two accounting systems can be reconciled. Within the context of reconciling NIPA and FoF, an otherwise insignificant \$3 million difference between NIPA and FoF total residential investment<sup>1</sup> becomes significant. In order to reconcile NIPA gross investment with FoF gross investment, gross investment\* is defined to be FoF gross investment plus the \$3 million difference between NIPA and FoF total residential investment. Clearly gross investment\* is defined in neither NIPA nor FoF.

A clear presentation of the accounting linkages between NIPA and FoF requires a modification of the format used in Tables 2 and 3. In Table 4, the columnar format is the same as that of Tables 2 and 3, except for column 12. The title for column 12 is now NIPA total and reconciliation instead of simply NIPA total. In column 12, consumer durables (\$156,831 million) are added to both NIPA gross investment (\$262,994 million) and NIPA gross saving (\$257,892 million). This addition is reflected on row 9 for NIPA gross investment plus consumer durables (total of \$419,825 million) and on row 11 for NIPA gross saving plus consumer durables (total of \$414,723 million). This latter total plus NIPA statistical discrepancy (\$5,102 million on line 10) equals NIPA gross investment plus consumer durables.

Table 4 displays a balanced FoF account and the linkages between NIPA and FoF. The first seven rows are rows 4 through 10, respectively, from Table 2 (except for the above noted change in column 12). In row 9, FoF gross investment\* carries down the household through federal column entries of row 7, and adds the \$3 million residential discrepancy (row 8) to the

<sup>1</sup>NIPA and FoF total residential investment are often different by small amounts largely due to rounding error after 1957.

**Table 4**  
**GROSS INVESTMENT\* AND SAVINGS, 1976**  
(Millions of dollars)

Row	Flow of Funds											NIPA Total and Recon- cilia- tion
	House- holds 1	Farm Busi- ness 2	Non- farm Non- corpo- rate Busi- ness 3	Non- farm Non- finan- cial Corpo- rate 4	Finan- cial Busi- ness 5	State and Local Gov't 6	Federal Govern- ment 7	Un- allo- cated 8	Nat- ional Total 9	Net Foreign 10	Total 11	
1. Gross private domestic investment (NIPA)	66,321	12,856	26,584	144,345	7,758				257,864		257,864	257,867
2. Net foreign investment (NIPA)												5,127
3. Gross investment (NIPA)	66,321	12,856	26,584	144,345	7,758				257,864		257,864	262,994
4. Consumer durables	156,831								156,831		156,831	156,831
5. Net financial investment (FoF)	87,903	-1,781	-360	-23,135	6,960	-4,637	-58,605	8,402	14,747	-14,747	0	0
6. Mineral rights from U.S. Gov't. (FoF)				3,973			-3,973		0		0	0
7. Gross investment (FoF)	311,055	11,075	26,224	125,183	14,718	-4,637	-62,578	8,402	429,442	-14,747	414,695	419,825
8. Residential discrepancy								3	3		3	0
9. Gross investment* (FoF)	311,055	11,075	26,224	125,183	14,718	-4,637	-62,578	8,405	429,445	-14,747	414,698	419,825
10. Discrepancy	-24,614	0	0	9,025	-3,771	8,287	4,756	-8,405	-14,722	9,620	-5,102	5,102
11. Gross saving (FoF)	286,441	11,075	26,224	134,208	10,947	3,650	-57,822	0	414,723	-5,127	409,596	414,723
Memorandum												
12. Gross investment* (FoF)											414,698	
13. Less consumer durables											156,831	
14. Plus NIPA net foreign investment											5,127	
15. Equals NIPA gross investment											262,994	262,994
16. Gross saving (FoF)											409,596	
17. Less consumer durables											156,831	
18. Plus NIPA discrepancy											5,102	
19. Plus NIPA net foreign investment											5,127	
20. NIPA gross saving plus NIPA discrepancy											262,994	262,994

FoF unallocated, national total, and total column entries. Row 11 repeats row 17 from Table 3. The entries in row 10 equal gross saving minus gross investment for each column. These entries are the FoF sector discrepancies for columns one through seven. The remaining FoF entries on row 10 are, respectively: the unallocated discrepancy (net financial discrepancy plus the residential investment discrepancy); the discrepancy between gross national saving and investment<sup>2</sup>; the foreign discrepancy<sup>3</sup>; and the NIPA statistical discrepancy (with the sign

<sup>2</sup>This discrepancy is undefined in the FoF computer tape documentation, *Flow of Funds Table Codes, op. cit.*, p. 11.

<sup>3</sup>The difference between FoF foreign gross saving (NIPA "net foreign investment" with the sign reversed) and FoF "net foreign investment" equals the statistical discrepancy in the international transaction statement and is the FoF foreign sector discrepancy.

reversed). With rows 9, 10, and 11, the FoF account is balanced, i.e., gross saving minus the discrepancy equals gross investment.

The discrepancies in row 10 are interrelated. The sum of the domestic sector discrepancies and the unallocated discrepancy equals the difference between FoF gross national saving and gross national investment\*. Furthermore, the difference between FoF gross national saving and investment\* equals the NIPA statistical discrepancy (in the FoF total column) minus the foreign sector discrepancy.<sup>4</sup> Since at the most aggregate level all financial flows net to zero, FoF gross saving minus gross investment\* equals the negative of the NIPA discrepancy.<sup>5</sup>

The gross investment crosswalk between NIPA and FoF requires the memorandum lines 12 through 15. These memorandum lines can be viewed as another version of Eq. (4) stated at the beginning of this section. Subtracting consumer durables of \$156,831 million (line 13) from and adding NIPA net foreign investment of \$5,127 million (line 14) to FoF gross investment\* of \$414,698 million (line 12) equals NIPA gross investment of \$262,994 million (line 15).<sup>6</sup> These lines complete the NIPA/FoF gross investment crosswalk.

Finally, memorandum lines 16 through 20 reconcile NIPA and FoF gross saving. These memorandum lines can be viewed as another version of Eq. (5). Subtracting consumer durables (line 17) from FoF gross saving (line 16) and adding the NIPA statistical discrepancy (line 18) and NIPA net foreign investment (line 19) equals NIPA gross saving plus the NIPA statistical discrepancy (line 20). These lines complete the NIPA/FoF gross saving crosswalk.

At the most aggregate level of gross investment and saving, the accounting differences between NIPA and FoF are that: consumer durables are classified as consumption in NIPA and as investment in FoF; FoF classifies NIPA net foreign investment as saving, instead of as investment; and FoF reverses the sign of NIPA statistical discrepancy. FoF gross investment\* minus consumer durables and plus NIPA net foreign investment equals NIPA gross investment. FoF gross saving minus consumer durables, plus NIPA statistical discrepancy and NIPA net foreign investment,<sup>7</sup> equals NIPA gross saving plus NIPA statistical discrepancy.

At the domestic level (excluding the foreign sector) of gross investment and saving, the accounting differences are the treatment of consumer durables and the fact that net financial investment (domestic) is a component of domestic investment in FoF. *National* gross investment in FoF minus consumer durables and net financial investment (domestic) equals NIPA gross private domestic investment. FoF *national* gross saving minus consumer durables equals NIPA gross saving.

Table 4 combines the aggregate information of Tables 2 and 3, balances the FoF account, and provides crosswalks from aggregate measures of investment, saving, and discrepancy in FoF to the equivalent measures in NIPA. The NIPA/FoF gross investment and saving crosswalk is now complete.

<sup>4</sup>This is a natural result of the net financial constraint. See "A Quarterly Presentation of Flow of Funds, Saving, and Investment," *op. cit.*, p. 859.

<sup>5</sup>Again the sign reversal for the NIPA discrepancy occurs because of the FoF convention of assigning all discrepancies to the investment, instead of the saving, side of the account. In NIPA, gross saving plus the statistical discrepancy equals gross investment; in FoF, gross saving minus the statistical discrepancy equals gross investment.

<sup>6</sup>Further inspection of Tables 2 and 4 reveals that NIPA gross private domestic investment plus consumer durables and FoF net financial investment equals FoF gross national investment\*.

<sup>7</sup>NIPA net foreign investment enters the saving side of FoF with the sign reversed.

## VI. HOUSEHOLD/INDIVIDUALS' PERSONAL SAVING AND INVESTMENT MEASURES

This section resolves the confusion over the difference between the NIPA and FoF measures of personal saving. The reader may first want to read App. A which contains, in its entirety, *The Wall Street Journal* article which was the original impetus for this section.

Up to this point, the discussion has focused on the interconnections of NIPA and FoF gross investment and saving. The focus will now be on the FoF household and individuals' subaccount measures of investment and saving. A discussion of these subaccount measures will demonstrate that the difference between NIPA and FoF measures of personal saving is entirely definitional.

The discussion is presented as a progression of five tables to ensure clarity regarding definitional differences which have been the subject of confusion. Thus far the only FoF household saving concept presented was gross household saving (\$286,441 million on line 17 of Table 3). The tables will begin with the household investment and saving detail already given in Tables 2 and 3 and then add essential detail lines for the household and individuals' sectors.

Since all five tables present FoF concepts of investment, saving, and the difference between investment and saving, these three concepts are defined in advance of the presentation. Investment is defined in FoF as the sum of net purchases of capital transactions and net acquisitions of financial assets less net increases in liabilities—all capital transactions. Saving is defined in FoF as the excess of current receipts over current expenditures—all current transactions. The distinguishing difference between the FoF definition of investment and saving is that the former is defined for capital transactions and the latter is defined for current transactions.<sup>1</sup>

The dollar difference between investment and saving is the third definition important to the following discussion. The accounting identity that investment must equal saving in practice often requires an additional entry to ensure that the account balances. In NIPA this entry is labeled as the statistical discrepancy (Table 1, line 12); in FoF the balancing entry is labeled as the discrepancy (Table 4, line 10). Recall that in FoF the NIPA statistical discrepancy enters the account with the sign reversed (see Table 4, line 10, columns 11 and 12). The difference in sign represents a difference in accounting conventions.<sup>2</sup> The household discrepancy of -\$24,614 million in 1976 (Table 4, line 10, column 1) is the amount by which gross household saving exceeds gross household investment—a net use of funds. Alternatively, the amount of \$24,614 million in 1976 is the amount by which *gross household investment exceeds gross household saving* in FoF—a net source of funds.<sup>3</sup> This alternative interpretation will be referred to as the household difference. It is very important to recognize that the definition of the household difference follows the NIPA, instead of the FoF, accounting convention.

Table 5 presents the household difference concept which requires only a rearrangement of household entries already presented. Four investment entries have been presented for the household sector—lines 1, 2, 7, and 8 in Table 2. Similarly, there are five saving entries for the

<sup>1</sup>"A Quarterly Presentation of Flow of Funds, Saving, and Investment," *op. cit.*, p. 832.

<sup>2</sup>See Section V, footnote 4.

<sup>3</sup>Household discrepancy = gross household saving - gross household investment. Household difference = gross household investment - gross household saving.

household sector—lines 1, 7, 14, 15, and 16 in Table 3. These nine entries have been brought forward from the earlier tables to compose Table 5. The first ten lines in Table 5 are arranged so as to derive the incremental changes that reflect investment in excess of saving. The memorandum lines provide gross reconciliation (lines 11–13). In 1976, household net investment exceeds personal saving by \$5,412 million. Household tangible investment exceeds household capital consumption allowances by more than credits for government pensions and capital gains. The household difference equals the sum of the incremental differences between investment and saving categories, or gross household investment minus gross household saving. For 1976 the Federal Reserve could not account for a source of funds (\$24,614 million) within the household sector which financed household investment in excess of household saving.

With the components of the household difference presented in Table 5, the information content from this table can be expanded to a gross household sector presentation. This presentation is displayed in Table 6. While most of the information in Table 6 is from Tables 2, 3, and 5, four line entries are new. In Table 5, lines 8 and 9 net to zero as the same dollar amount of consumer durables is first added as investment and then subtracted as saving. Since, in FoF, consumer durables are classified as tangible investment, the FoF accounts include a capital consumption allowance for consumer durables (Table 6, line 12) as an explicit

Table 5  
HOUSEHOLD DIFFERENCE, 1976  
(As incremental increases in investment)  
(Millions of dollars)

Line			
1.	Household net financial investment	87,903	
2.	Less: personal saving (NIPA)	82,491	5,412
3.	Household nonresidential plant and equipment	5,713	
4.	Household residential investment	60,608	
5.	Less: household capital consumption allowances	28,991	37,330
6.	Less: credit resulting from government pension and insurance contributions		-17,658
7.	Less: capital gains dividends of investment companies		-470
8.	Consumer durables (investment)	156,831	
9.	Less: consumer durables (saving)	156,831	0
10.	Household difference (column 2: lines 2+5+6+7+9)		24,614
Memorandum			
11.	Gross household saving (FoF) (column 1: lines 2+5+9 and column 2: lines 6+7)	286,441	
12.	Household difference (line 13 - 11)	24,614	
13.	Gross household investment (FoF) (lines 1, 3, 4, and 8 above)	311,055	

Table 6  
EXPANDED GROSS HOUSEHOLD SECTOR, 1976  
(Millions of dollars)

Investment		
1.	Capital expenditures	223,152
2.	Nonresidential plant & equipment	5,713
3.	Residential investment	60,608
4.	Consumer durables	156,831
5.	Net financial investment	87,903
6.	Net acquisition of financial assets	183,941
7.	Net increase in liabilities	96,038
8.	Gross household investment	311,055
Saving		
9.	NIPA personal saving	82,491
10.	Capital consumption allowances	145,856
11.	Nonresidential plant & equipment and Residential capital consumption allowances	28,991
12.	Consumer durables capital consumption allowances	116,865
13.	Other sources of saving	58,094
14.	Credit for government pension and insurance	17,658
15.	Capital gains dividends of investment companies	470
16.	Net investment in consumer durables	39,966
17.	Gross household saving	286,441
18.	Household difference	24,614
19.	Gross household saving plus sectoral difference	311,055

component of saving. "Net investment in consumer durables" (Table 6, line 16) equals the difference between the expenditure on and capital consumption allowance for consumer durables and must be classified as saving in FoF to avoid violating the investment and saving accounting constraint. The next two lines to be included simply add information about household net financial investment. Net financial investment is defined in FoF as net acquisition of financial assets minus net increase in liabilities. By including the net acquisition of financial assets (line 6) and net increase in liabilities (line 7), the information content is increased with no change in the overall relationships within the household account.

Table 6 is an intermediate table in an orderly presentation of accounting concepts and data. A *net* household sector can be displayed with a simple rearrangement of the capital con-

sumption line entries in Table 6.<sup>4</sup> In Table 7A “net household investment” (line 12) equals the sum of “net investment in tangibles” (line 8) and net financial investment (line 9). “Net investment in tangibles” is derived by subtracting capital consumption allowances (line 5) from capital expenditures (line 1). This action also reduces gross saving of households by the amount of the capital consumption allowances, thereby deriving “net household saving.” Consequently, the saving components here are limited to NIPA personal saving (line 13) and the components of other sources of saving (subtotal on line 14).<sup>5</sup> The other sources of saving on lines 15 through 17 of Table 7A represent the difference between FoF net household saving and NIPA personal saving.<sup>6</sup> Note that net household saving as defined by the Federal Reserve consists of the product and income components, rather than financial flow components.

### FoF Individuals’ Account

When the Securities Exchange Commission (SEC) dropped the publication of individuals’ saving, the Federal Reserve introduced the individuals’ account into FoF as an alternative measure of individuals’ saving.<sup>7</sup> The individuals’ account is constructed from information contained in the household sector, the farm sector, and the nonfarm noncorporate business sector—the first three columns of Tables 2, 3, and 4.<sup>8</sup> This account can be reproduced using information in Table 7A and by adding information from two additional sectors (farm and noncorporate nonfarm business in Tables 2 and 3).

Table 7B displays the components of the individuals’ account. Net individuals’ investment (line 21) is defined to be the sum of net investment in tangibles (line 17) and net financial investment (line 18). Net individuals’ saving (line 27) equals the sum of entries on lines 22 through line 26. One additional line not previously shown in a table, and not a mathematical result of line entries in a table, is line 26—net saving by farm corporations.<sup>9</sup> This item is the difference in net investment and saving between the household account (Table 7A) and the individuals’ account (Table 7B).

Tables 6, 7A, and 7B are not in the formats presented in FoF. They were designed to facilitate an orderly progression of definitions and concepts. Table 8 is in the format of the FoF table “Amount and Composition of Individuals’ Saving.” The first two columns in Table 8 are, respectively, the reference line numbers referred to in this text and the actual line numbers in the FoF table. The account for individuals introduces only two concepts of saving—individuals’ saving and personal saving, FoF basis. In principle, the FoF measure of

<sup>4</sup>Lines 10, 11, and 12 of Table 6 under saving have been relocated as lines 5, 6, and 7 of Table 7A.

<sup>5</sup>Lines 13, 15, and 16 are all entries from NIPA. Except for line 17, FoF net household saving could be estimated directly from NIPA data. The Department of Commerce does estimate net consumer durables (line 17) in their capital stock estimates.

<sup>6</sup>In 1959 the Federal Reserve contrasted net household saving with the Department of Commerce’s personal saving. At that time there was no alternative Federal Reserve measure of personal saving. See “A Quarterly Presentation of Flow of Funds, Saving, and Investment,” *op. cit.*, p. 842.

<sup>7</sup>The SEC and Federal Reserve measures of individuals’ saving are not the same.

<sup>8</sup>For farms and nonfarm noncorporate business sectors, the difference between gross saving and gross investment is constrained to equal zero (refer to the discrepancy line in Table 4). The FoF category of proprietors’ net investment is the accounting entry which ensures that gross saving equals gross investment for these two sectors. Proprietors’ net investment is statistically equal to tangible and financial investment expenditures less increases in liabilities (other than proprietors’ net investment) and capital consumption charges. The sum of farm and noncorporate business proprietors’ net investment is transferred to the household sector. See *Introduction to the Flow of Funds, op. cit.*, pp. 32–33 and 46.

<sup>9</sup>Net saving by farm corporations equals farm corporation capital consumption allowances minus their undistributed profits. The amount of net saving by farm corporations has been minor—rarely outside the range of + or –\$300 million in a year.

**Table 7A**  
**EXPANDED NET HOUSEHOLD SECTOR, 1976**  
(Millions of dollars)

<b>Investment</b>		
1.	Capital expenditures	223,152
2.	Nonresidential plant & equipment	5,713
3.	Residential investment	60,608
4.	Consumer durables	156,831
5.	Capital consumption allowances	145,856
6.	Nonresidential plant & equipment and Residential capital consumption allowances	28,991
7.	Consumer durables capital consumption allowances	116,865
8.	Net investment in tangibles (line 1 - line 5)	77,296
9.	Net financial investment	87,903
10.	Net acquisition of financial assets	183,941
11.	Net increase in liabilities	96,038
12.	Net household investment (line 8 + line 9)	165,199
<b>Saving</b>		
13.	NIPA personal saving	82,491
14.	Other sources of saving	58,094
15.	Credit for government pension and insurance	17,658
16.	Capital gains dividends of investment companies	470
17.	Net investment in consumer durables	39,966
18.	Net household saving	140,585
19.	Household difference	24,614
20.	Household net saving plus sectoral difference	165,199



Table 7B  
 INDIVIDUALS' NET SECTOR, 1976  
 (Millions of dollars)

Investment		
1.	Gross investment in tangibles	262,592
	Nonresidential plant and equipment	
2.	Households	5,713
3.	Farm business	13,802
4.	Noncorporate, nonfarm business	18,323
	Residential	
5.	Households	60,608
6.	Farm business	1,103
7.	Noncorporate, nonfarm business	7,234
	Change in business inventories	
8.	Farm business	-2,049
9.	Noncorporate, nonfarm business	1,027
10.	Consumer durables	156,831
11.	Capital consumption allowances, total	183,222
	Capital consumption allowances with	
	Capital consumption adjustments	
	Nonresidential plant and equipment	
12.	Households	28,991
13.	Farm, corporate	1,200
14.	Farm, noncorporate	9,942
15.	Noncorporate, nonfarm business	26,224
16.	Consumer durables	116,865
17.	Net investment in tangibles (line 1 - line 11)	79,370
18.	Net financial investment	85,762
19.	Increase in financial assets	210,474
20.	Net increase in debt	124,712
21.	Net individuals' investment (line 17 + line 18)	165,132
Saving		
22.	NIPA personal saving	82,491
23.	Credit for government pension and insurance	17,658
24.	Capital gains dividends of investment companies	470
25.	Net investment in consumer durables	39,966
26.	Net saving by farm corporations	-67
27.	Net individuals' saving (lines 22+23+24+25+26)	140,518
28.	Household difference	24,614
29.	Net saving plus household difference	165,132

personal saving is supposed to equal NIPA personal saving on line 12. The fact that the difference on line 13 (line 11 - line 12) is not equal to zero is the unexplained puzzle discussed in *The Wall Street Journal*.<sup>10</sup>

Table 8 has two problems—the two concepts of savings. Individuals' saving on line 6 equals the increase in financial assets less net increase in debt (line 1 - line 5), plus gross investment in tangible assets less capital consumption allowances (line 2 - line 3). Refer back to Table 7B. Net financial investment (line 18) equals net acquisition of financial assets less net increase in liabilities (line 19 - line 20). Net investment in tangibles (line 17) equals gross investment in tangibles less capital consumption allowances (line 1 - line 11). Net individuals' investment (line 21) equals net financial investment plus net investment in tangibles. In Table 8, individuals' net saving (line 6) equals the sum of two net investment categories. Net financial investment equals the increase in financial assets (line 1) minus the net increase in debts

Table 8  
INDIVIDUALS' AND PERSONAL SAVINGS  
(Millions of dollars)

Line FoF			
1.	1.	Increase in financial assets	210,474
2.	19.	Gross investment in tangible assets	262,592
3.	24.	Capital consumption allowances	183,222
4.	28.	Net investment in tangible assets (line 2 - line 3)	79,370
5.	33.	Net increase in debt	124,712
6.	40.	Individuals' saving (line 1+line 4-line 5)	165,132
7.	41.	Less: Government insurance and pension reserves	17,658
8.	42.	Less: Net investment in consumer durables	39,966
9.	43.	Less: Capital gain dividends	470
10.	44.	Less: Net saving by farm corporations	-67
11.	45.	Personal saving, FoF basis (lines 6+7+8+9+10)	107,105
12.	46.	Personal saving, NIPA basis	82,491
13.	47.	Difference	24,614
Memorandum			
14.		Net individuals' saving	140,518
15.	41.	Less: Government insurance and pension reserves	17,658
16.	42.	Less: Net investment in consumer durables	39,966
17.	43.	Less: Capital gains dividends	470
18.	44.	Less: Net saving by farm corporations	-67
19.	46.	Personal saving, NIPA basis	82,491

<sup>10</sup>See App. A.

(line 5). Net investment in tangible assets (line 4) equals gross investment in tangible assets (line 2) minus capital consumption allowances (line 3). Given the FoF definitions of investment and saving,<sup>11</sup> the description for line 6 of Table 8 is mislabeled—a misnomer. *Line 6 is individuals' net investment, not individuals' saving.*<sup>12</sup>

From “individuals' saving” (line 6, Table 8), are deducted the accounting differences between FoF net household saving and NIPA personal saving (lines 7 through 9) and less net saving by farm corporations (line 10). However, because these are subtracted from *individuals' net investment*, the result derived on line 11, “personal saving, FoF basis” is misdefined as well. Alternatively, the FoF measure of personal saving equals NIPA personal saving plus the difference between FoF gross household investment over saving. The result again should be labeled as net investment.<sup>13</sup>

The recognition that individuals' saving is in fact a measure of net investment also alters the interpretation of the personal saving difference. This reinterpretation involves just a few changes in Table 8. No essential data are lost if lines 7 through 12 in Table 8 are dropped. All of the essential data from these lines are contained in memorandum lines 15 through 19. The summation of the amounts on lines 15 through 19 equals net individuals' saving on line 14. Now the amount on line 6, properly labeled net individuals' investment, minus net individuals' saving (line 14), equals the difference (line 13). This definition of the difference on line 13 is that of a residual which is a measure of a net source of funds. In Table 7B the household difference (line 28) equals net individuals' investment (line 21) minus net individuals' saving (line 27). Compare the dollar amounts of the difference entry in Table 8 with the household difference in Table 7B. The dollar amounts are equal because the definitions are exactly the same and both are derived from the same data. The difference on line 13 of Table 8 is, of course, the personal saving difference. Eliminating the FoF measure of personal saving and rearranging the accounting entries reveals that the personal saving difference should be labeled as the household difference. So the rising difference between FoF and NIPA personal saving reflects not a definitional or statistical difference between two measures of personal saving, but a growing FoF household sector residual.

The growing magnitude of the household difference is a net source of funds to the household sector. This net source of funds could be incorporated into a new definition of “personal saving” which may be useful in analysis of sources and uses of funds. Such a measure can be defined as net household saving plus the household difference.<sup>14</sup> That definition is an accounting convention consistent with the equality of sources and uses of funds at a sectorial level. The new definition of personal saving adds a capital market net flow of saving to NIPA personal saving and to FoF household saving conventions (Table 7A, lines 15, 16, and 17). Personal saving defined here satisfies the accounting constraint that net saving equals net investment when this accounting constraint is applied to the individual sector. For instance, in 1976 the proposed measure of personal saving (Table 7A, lines 18 + 19)<sup>15</sup> and net household invest-

<sup>11</sup>FoF definitions of investment and saving are defined on page 13.

<sup>12</sup>“To apply the term 'saving' both to the current sources funds in the capital transactions account and to the capital uses of funds is to blur a distinction that is as analytically significant, for example, as that between sources and uses of funds, or between supply and demand,” from “Quarterly Presentation of Flow of Funds, Saving, and Investment,” *op. cit.*, p. 833.

<sup>13</sup>Memorandum lines 14 through 19 reconcile net individuals' saving from Table 7B (line 27) with NIPA personal saving.

<sup>14</sup>Alternatively, a measure of personal saving can be defined as net individuals' saving (Table 7B, line 27) plus the household difference (Table 7B, line 28).

<sup>15</sup>Line 20 of Table 7A can be relabeled as personal saving.

ment (Table 7A, line 12) are both equal to \$165,199 million. Thus, the alternative definition of personal saving reconciles with the NIPA measure, incorporates FoF household saving conventions, includes a capital market net source of funds, and is equal to net household investment.

## VII. ALTERNATIVE MEASURES OF HOUSEHOLD AND PERSONAL SAVING: THE RECORD

This section presents the 1955–1982 record for the alternative measures of household and personal saving discussed in the preceding section. A set of five tables displays annual data for the period 1955–1982 that relate the following four measures of saving to each other: (1) NIPA personal saving, (2) FoF net household saving, (3) FoF gross household saving, and (4) FoF personal saving. As indicated in Section VI, the first three are alternative measures of saving which differ in terms of the items included in each definition, the fourth is a misnomer. Since FoF net and gross household saving explicitly build on the base of NIPA personal saving, it is emphasized that NIPA personal saving is a *residual* in the NIPA system of accounts. In addition to presenting the annual totals of each measure of saving, all four measures will also be given as a percentage of NIPA personal income.

A comparison of the first three measures is provided by Table 9. The FoF net and gross household saving measures are *definitionally* more inclusive than NIPA personal saving, and therefore greater in dollar and percentage amounts. Both the composition and the larger amounts of FoF net and gross household saving measures make them, in terms of annual percentage change, less sensitive than that of NIPA personal saving.

The items composing the difference between NIPA personal saving and FoF net household saving are displayed in Table 10. FoF net household saving is equal to the sum of NIPA personal saving, capital gain dividends, credit for government pension and insurance, and net investment in consumer durables. This collection of “other sources of saving” was shown earlier as lines 14–16 in Table 6. Capital gain dividends to households are offset elsewhere in FoF by a reduction in financial business gross saving (see Table 3, line 16). Credit for government pension and insurance is *imputed* to the household in FoF and the imputation also reduces gross saving by government by an equal amount (Table 3, line 15). Despite the label, the last source of “other saving” is net investment in consumer durables. This item is the main source of annual variability in FoF net household saving, other than that provided by NIPA personal saving. Net investment in consumer durables equals consumer durable expenditure minus the capital consumption allowance for consumer durables.<sup>1</sup>

The items composing the difference between FoF net and gross household saving are displayed in Table 11. FoF net household saving plus three allowances for capital consumption equal FoF gross household saving. Capital consumption allowance for plant and equipment is that for nonprofit associations which are themselves included as part of households.<sup>2</sup> An examination of these items indicates a steady increase in capital consumption over time, resulting in a more stable trend for FoF gross household saving.

FoF and NIPA measures of personal saving (both as dollar amounts and as a percent of personal disposable income) and the FoF personal saving difference are displayed in Table 12. The FoF measure of personal saving is listed for the record, as the measure itself is misdefined. The growing magnitude of the difference indicates why the puzzle gained such attention. This increasing dollar difference mirrors a growing household discrepancy and reflects not differences in the concept of personal saving, but rather the difference between household investment and saving.

<sup>1</sup>See discussion on pp. 15–16.

<sup>2</sup>See discussion in footnote 2, Section III.

Table 9  
 NIPA PERSONAL DISPOSABLE INCOME AND SAVING,  
 FoF HOUSEHOLD NET AND GROSS SAVING  
 (Millions of dollars)

Year	Personal Disposable Income <sup>a</sup>	NIPA Personal Saving <sup>a</sup>	FoF Household		% of NIPA Personal Disposable Income		
			Net Saving	Gross Saving	NIPA Personal Saving	FoF Household	
						Net Saving	Gross Saving
1955	274,817	16,304	30,542	62,416	5.93	11.11	22.71
1956	292,901	21,311	32,576	67,895	7.28	11.12	23.18
1957	308,762	22,410	32,579	70,563	7.26	10.55	22.85
1958	319,006	23,562	30,221	70,115	7.39	9.47	21.98
1959	338,450	21,138	31,815	73,885	6.25	9.40	21.83
1960	351,993	19,676	30,292	73,718	5.59	8.61	20.94
1961	365,751	23,009	31,182	76,166	6.29	8.53	20.82
1962	386,791	23,293	35,792	82,037	6.02	9.25	21.21
1963	405,880	21,894	38,024	86,026	5.39	9.37	21.19
1964	440,587	29,558	49,525	99,769	6.71	11.24	22.64
1965	475,780	33,662	59,511	111,754	7.08	12.51	23.49
1966	513,690	35,952	65,963	120,970	7.00	12.84	23.55
1967	547,858	44,258	72,547	132,417	8.08	13.24	24.17
1968	593,420	41,940	77,513	142,896	7.07	13.06	24.08
1969	638,933	40,588	76,476	149,382	6.35	11.97	23.38
1970	695,289	55,784	85,590	165,379	8.02	12.31	23.79
1971	751,752	60,649	97,469	184,158	8.07	12.97	24.50
1972	810,351	52,637	100,282	194,554	6.50	12.38	24.01
1973	914,496	78,960	132,110	235,382	8.63	14.45	25.74
1974	998,345	85,123	126,585	243,328	8.53	12.68	24.37
1975	1,096,067	94,282	136,063	268,312	8.60	12.41	24.48
1976	1,194,360	82,491	140,585	286,441	6.91	11.77	23.98
1977	1,314,020	77,996	150,766	312,798	5.94	11.47	23.80
1978	1,473,993	89,374	174,655	357,169	6.06	11.85	24.23
1979	1,650,156	96,691	174,529	380,888	5.86	10.58	23.08
1980	1,824,078	106,211	175,710	408,855	5.82	9.63	22.41
1981	2,029,154	130,214	208,575	461,037	6.42	10.28	22.72
1982	2,173,452	142,750	223,399	486,227	6.57	10.28	22.37

<sup>a</sup>NIPA personal disposable income and saving are taken from the FoF computer tape. Some entries do not equal those published by the Department of Commerce.

**Table 10**  
**NIPA PERSONAL SAVING AND COMPONENTS**  
**OF FoF NET HOUSEHOLD SAVING**  
(Millions of dollars)

Year	NIPA Personal Saving <sup>a</sup>	Credit Govt. Insur.	Capital Gain Divid.	Net Durables Invest.	Household Net Saving
1955	16,304	1,828	222	12,188	30,542
1956	21,311	2,440	293	8,532	32,576
1957	22,410	2,197	284	7,688	32,579
1958	23,562	2,760	316	3,583	30,221
1959	21,138	2,919	427	7,331	31,815
1960	19,676	3,160	416	7,040	30,292
1961	23,009	3,390	499	4,284	31,182
1962	23,293	3,474	502	8,523	35,792
1963	21,894	3,852	472	11,806	38,024
1964	29,558	4,393	556	15,018	49,525
1965	33,662	4,743	939	20,167	59,511
1966	35,952	5,586	1,318	23,107	65,963
1967	44,258	5,488	1,690	21,111	72,547
1968	41,940	6,142	2,458	26,973	77,513
1969	40,588	7,073	2,536	26,279	76,476
1970	55,784	8,880	923	20,003	85,590
1971	60,649	9,468	776	26,576	97,469
1972	52,637	11,636	1,420	34,589	100,282
1973	78,960	11,790	944	40,416	132,110
1974	85,123	12,551	485	28,426	126,585
1975	94,282	15,103	219	26,459	136,063
1976	82,491	17,658	470	39,966	140,585
1977	77,996	22,534	636	49,600	150,766
1978	89,374	27,898	711	56,672	174,655
1979	96,691	24,399	931	52,508	174,529
1980	106,211	35,278	1,774	32,447	175,710
1981	130,214	37,485	2,696	38,180	208,575
1982	142,750	39,890	2,243	38,516	223,399

<sup>a</sup>NIPA personal saving is taken from the FoF computer tape. Some entries do not equal those published by the Department of Commerce.

**Table 11**  
**COMPONENTS OF FoF HOUSEHOLD GROSS SAVING**  
(Millions of dollars)

Year	Net Saving	Capital Consumption Allowances			Gross Saving
		Non-profit Plant and Equip.	Residential	Consumer Durables	
1955	30,542	702	4,739	26,433	62,416
1956	32,576	800	5,164	29,355	67,895
1957	32,579	881	5,457	31,646	70,563
1958	30,221	914	5,717	33,263	70,115
1959	31,815	963	6,002	35,105	73,885
1960	30,292	1,021	6,336	36,069	73,718
1961	31,182	1,081	6,614	37,289	76,166
1962	35,792	1,161	6,904	38,180	82,037
1963	38,024	1,253	7,123	39,626	86,026
1964	49,525	1,354	7,470	41,420	99,769
1965	59,511	1,470	7,930	42,843	111,754
1966	65,963	1,620	8,507	44,880	120,970
1967	72,547	1,781	9,132	48,957	132,417
1968	77,513	1,942	9,954	53,487	142,896
1969	76,476	2,182	11,279	59,445	149,382
1970	85,590	2,443	12,135	65,211	165,379
1971	97,469	2,696	13,320	70,673	184,158
1972	100,282	2,930	14,823	76,519	194,554
1973	132,110	3,257	17,089	82,926	235,382
1974	126,585	3,909	19,743	93,091	243,328
1975	136,063	4,354	22,157	105,738	268,312
1976	140,585	4,457	24,534	116,865	286,441
1977	150,766	4,827	28,590	128,615	312,798
1978	174,655	5,464	33,508	143,542	357,169
1979	174,529	6,341	39,085	160,933	380,888
1980	175,710	7,204	44,072	181,869	408,855
1981	208,575	7,786	48,304	196,372	461,037
1982	223,399	8,129	50,684	204,015	486,227



Table 12  
 NIPA PERSONAL DISPOSABLE INCOME, NIPA PERSONAL SAVING,  
 HOUSEHOLD DIFFERENCE, AND FoF PERSONAL SAVING  
 (Millions of dollars)

Year	NIPA Personal Disposable Income <sup>a</sup>	FoF Personal Saving	NIPA Personal Saving <sup>a</sup>	Differ- ence	% of NIPA Personal Disposable Income	
					FoF Personal Saving	NIPA Personal Saving
1955	274,817	19,902	16,304	-3,598	7.24	5.93
1956	292,901	26,010	21,311	-4,699	8.88	7.28
1957	308,762	26,430	22,410	-4,020	8.56	7.26
1958	319,006	27,502	23,562	-3,940	8.62	7.39
1959	338,450	27,375	21,138	-6,237	8.09	6.25
1960	351,993	26,157	19,676	-6,481	7.43	5.59
1961	365,751	27,748	23,009	-4,739	7.59	6.29
1962	386,791	29,574	23,293	-6,281	7.65	6.02
1963	405,880	30,688	21,894	-8,794	7.56	5.39
1964	440,587	36,852	29,558	-7,294	8.36	6.71
1965	475,780	39,089	33,662	-5,427	8.22	7.08
1966	513,690	42,772	35,952	-6,820	8.33	7.00
1967	547,858	48,674	44,258	-4,416	8.88	8.08
1968	593,420	44,964	41,940	-3,024	7.58	7.07
1969	638,933	35,696	40,588	4,892	5.59	6.35
1970	695,289	56,741	55,784	-957	8.16	8.02
1971	751,752	58,972	60,649	1,677	7.84	8.01
1972	810,351	61,645	52,637	-9,008	7.61	6.50
1973	914,496	78,515	78,960	445	8.59	8.63
1974	998,345	86,915	85,123	-1,792	8.71	8.53
1975	1,096,067	111,115	94,282	-16,833	10.14	8.60
1976	1,194,360	107,105	82,491	-24,614	8.97	6.91
1977	1,314,020	94,734	77,996	-16,738	7.21	5.94
1978	1,473,993	115,117	89,374	-25,743	7.80	6.06
1979	1,650,156	130,148	96,691	-33,457	7.89	5.86
1980	1,824,078	180,941	106,211	-74,730	9.92	5.82
1981	2,029,154	204,672	130,214	-74,458	10.09	6.42
1982	2,173,452	212,905	142,750	-70,155	9.80	6.57

<sup>a</sup>NIPA personal disposable income and saving are taken from the FoF computer tape. Some entries do not equal those published by the Department of Commerce.



## Appendix A

### WIDELY DISPARATE SAVINGS STATISTICS GIVEN BY FED, COMMERCE OFFICIALS<sup>1</sup>

By Alan Murray  
Staff Reporter of The Wall Street Journal

Personal savings are up, proving that Ronald Reagan and the supply-siders were right that tax cuts would lead to increased savings. But personal savings are also down, proving that Reaganomics didn't work, just as Democrats predicted.

Confused? So are the economists.

The Federal Reserve Board says its figures show that savings have risen sharply since President Reagan took office. But the Commerce Department has figures that show savings have dropped. It's no small discrepancy: the two figures are \$117 billion apart, and the question of whether savings have risen or fallen is sure to be part of next year's political debate on Mr. Reagan's economic policies.

Statisticians at the Commerce Department and the Fed have tried to reconcile their numbers, but they can't. "Quite simply, we have no explanation," says John Gorman, an official at the Commerce Department's Bureau of Economic Analysis.

"This is a problem that has defeated every economist I know," says David Ernst of Evans Economics, Inc., a Washington consulting firm.

#### More Than a Quibble

According to the Fed's figures, savings rose to an annual rate of \$209.3 billion in the second quarter of this year from \$166.7 billion in 1980, the year before Mr. Reagan took office. But the Commerce Department says personal savings declined to \$92.3 billion from \$110.2 billion in 1980.

The Commerce Department plans to release its savings figure for the third quarter today. The new numbers are likely to show some rise in the savings rate from the second quarter, when consumers drew down savings to finance a spending boom that helped ignite the recovery. But analysts say the Commerce Department's figure will remain sharply below the Fed's third-quarter figure, which is also expected soon.

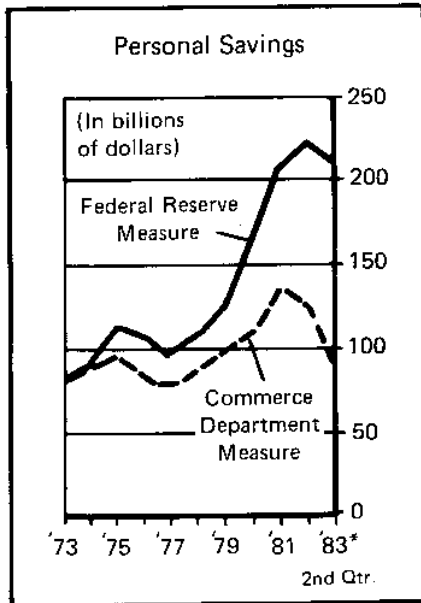
The difference is more than a statistician's quibble. Personal savings, along with earnings saved by business, provide the economy with the pool of loanable funds used to finance government budget deficits as well as private capital investment. If that savings pool is too small, competition between governments and private borrowers could crowd out private investment, drive up interest rates, and slow the recovery.

Over the long term, low savings mean low investment in new plants and equipment, and that stunts economic growth and hinders productivity. According to the Commerce Department figures, personal savings in the second quarter equaled only about 3 percent of the

<sup>1</sup>*The Wall Street Journal*, November 22, 1983, p. 37. Reprinted by permission of *The Wall Street Journal*, © Dow Jones & Company, Inc. 1983. All rights reserved.

nation's total output of goods and services, the lowest proportion of gross national product in two decades and far lower than the proportion in other industrial nations.

The \$117 billion discrepancy partly reflected differences in the way the Commerce Department and the Fed calculate their savings figures. The Commerce Department defines savings as what's left after subtracting consumer spending from disposable (mainly after-tax) personal income. The income and spending figures are important parts of the national income and product accounts, the vast data-collection effort that generates the quarterly GNP figures.



\*Seasonally adjusted annual rates.

The Fed, on the other hand, derives its savings numbers from figures showing the sources and uses of funds raised in U.S. capital markets. The Fed starts by calculating the increase in personal holdings of financial assets, such as bank accounts, bonds, and money-market mutual funds. It adds new investments made in homes and other fixed assets. Then it subtracts the increase in personal debt.

One problem with both the Commerce and the Fed figures is that they are "residuals," figures that show what's left after other, much larger estimates are added to and subtracted from each other. That magnifies the opportunity for error. "Every discrepancy in all the statistics figures by the government falls" into the savings numbers, the Commerce Department's Mr. Gorman says.

Nevertheless, some private economists attempt to explain the large—and growing—discrepancy between the figures to their clients. One popular theory pushed by those who favor the Fed figure is that Commerce Department statistics tend to overlook income earned

in the "underground economy," where transactions are made in cash to escape detection by the Internal Revenue Service and other government agencies. Because income is understated, they argue, savings—the difference between income and consumption—are also understated.

On the other hand, economists who favor the Commerce Department method complain that the Fed overstates savings. They argue that the central bank doesn't properly measure foreign investment in the U.S. Much of the savings in the Fed figures, they suggest, may actually be assets held directly or indirectly by foreigners.

But economists usually choose one figure or the other simply because of political leanings, gut feelings, or simple convenience.

Bruce Bartlett, a supply-sider who is the executive director of the Joint Economic Committee of Congress, prefers the Fed's figure. "Most economists I know consider that to be the more reliable measure," he says.

But Harvard economist, Lawrence Summers, favors the Commerce Department measure. According to economic theory, he notes, savings must equal investment. The department makes independent calculations of both savings and investment when it assembles the GNP figures, and the two match up with only a small discrepancy. Mr. Summers says that suggests that the Commerce Department figures are reasonably accurate.

### **Real Test Is Ahead**

He's quick to add, however, that the apparent decline in savings reflected in the Commerce Department statistics doesn't necessarily mean that Reaganomics has failed to stimulate savings. Of both the Commerce and the Fed figures, he says, "In an important sense, savings went up in ways that neither of these captures." He points out that the rise in securities prices has boosted the amount people hold, or "save," in stocks and bonds. Also, much of the recent consumption boom has been in consumer durables, such as cars and appliances, which last for more than three years and are, in a sense, a form of savings.

Mr. Bartlett argues that the real test of the Reagan policy will be how savings respond in the coming year or two as the pace of the recovery slows and the need for funds for long-term private investment increases. "It's going to take several quarters before we can make any statements about the effects of the tax cuts on savings," he says. Economists note that over time the deregulation of interest rates, the slowdown in inflation, and the expansion of tax-deferred individual-retirement accounts should also encourage more savings.

But as long as the \$117 billion discrepancy between the Commerce Department and the Fed measures of savings remains unexplained, some economists think it may be difficult to make any firm statements about savings.

"There are lots of discrepancies," says Richard Berner, a vice president at Morgan Guaranty Trust Co. of New York. "Both of these are inherently unreliable."

## Appendix B

### MANUAL FOR USE OF THE NIPA AND FoF RECONCILIATIONS OF SAVINGS AND INVESTMENTS

This appendix contains the FoF computer codes<sup>1</sup> necessary to reproduce Tables 2, 3, 4, 6, and 8 in the text. Each App. B table incorporates the respective text table number, title, and format. Whenever a blank entry occurs in App. B tables, for this entry there is no corresponding FoF computer code number.

These FoF computer codes will balance the FoF account. To exactly reproduce the numbers in the text tables requires a summation over four quarters of FoF seasonally *unadjusted* flow data and the FoF data issued in February 1983—some revisions have been made back through 1976 after this analysis was complete. FoF excludes NIPA saving categories of wage accruals and grants received by the U.S. Government. Since the FoF account is internally balanced, computer programs which generate crosswalks like those in the text will appear to reconcile with NIPA data. Such an appearance is deceiving. We recommend that FoF-reported NIPA gross investment, NIPA gross saving, and NIPA discrepancy be verified by a separate source—a Department of Commerce published source<sup>2</sup> or the NIPA computer tape.

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<sup>1</sup>*Flow of Funds Table Codes*, Division of Research and Statistics, Board of Governors of the Federal Reserve System, Washington, D.C., September 1981.

<sup>2</sup>For the Department of Commerce historical record of NIPA data, see *The National Income and Product Accounts*, *op. cit.* Current NIPA data are published in the *The Survey of Current Business*, U.S. Department of Commerce.

**Table B.1**  
**TEXT TABLE 2, INVESTMENT, 1976**  
 (FoF computer tape codes)

Line	Households	Farm Business	Nonfarm Non- corporate Business	Non farm Non- financial Corporate	Financial Business	State and Local Government
1. Nonresidential plant and equipment	155013003	135013003	115013005	105013005	695013005	
2. Residential	155012005	135012001	[ 115012205 + 115012405 ]	[ 105012205 + 105012405 ]	645012205	
3. Change in business inventories		135020003	115020000	105020005		
4. Gross private domestic investment (NIPA)						
5. Net foreign investment (NIPA)						
6. Gross investment (NIPA)						
7. Consumer dur- ables	155011001					
8. Net financial investment (FoF)	155000005	135000005	115000005	105000005	695000005	205000005
9. Mineral rights from U.S. Govt. (FoF)				105030003		
10. Gross invest- ment (FoF)	155090005	136000105	116300005	105090005	695090005	205000005

Table B.2

TEXT TABLE 2, INVESTMENT, 1976  
(FoF computer tape codes)

Line	Federal Govern- ment	Un- allo- cated	National Total	Net Foreign	Total	NIPA <sup>a</sup> Total
1. Nonresidential plant and equipment			895013001		895013001	895013001
2. Residential			195012001		195012001	195012001
3. Change in business inventories			145020005		145020005	145020005
4. Gross private domestic investment (NIPA)						85050005
5. Net foreign investment (NIPA)						885005005
6. Gross investment (NIPA)						85090005
7. Consumer dur- ables			155011001		155011001	
8. Net financial investment (FoF)	315000005	905000005	885000005	265000005	265000005	
9. Mineral rights from U.S. Govt. (FoF)	105030003					
10. Gross investment (FoF)	315090005	905000005	885090005	265000005	885090005 + 265000005	

<sup>a</sup>NIPA total FoF code numbers may not yield annual investment flows (sum over four quarters) equal to those published by the Department of Commerce, *National Income and Product Accounts*, *op. cit.*



Table B.3  
 TEXT TABLE 3, SAVING, 1976  
 (FoF computer tape codes)

Line		Households	Farm Business	Nonfarm Non- corporate Business	Nonfarm Non- financial Corporate	Financial Business	State and Local Government
1.	Personal saving	156007105					
2.	Wage accruals less disbursements (NIPA)						
3.	Undistributed cor- porate profits (NIPA)		136006003		[ 266006001 + 106006015 ]	796006001	
4.	Inventory valuation adjustment (NIPA)				105020601		
5.	Capital consumption adjustment (NIPA)		136310103		106310005	796310003	
	Capital consumption allowances with CCAdj						
6.	Corporate	[ 156300103 + 156300203 ]	136300103		106300005	796300003	
7.	Noncorporate		136300205	116300005			
8.	Government surplus or deficit (NIPA)						206061105
9.	Capital grants re- ceived by the United States						
10.	Gross saving (NIPA)						
11.	Statistical dis- crepancy (NIPA)						
12.	Gross saving plus statistical dis- crepancy (NIPA)						
13.	NIPA "net foreign investment" (sign reversed)						
14.	Consumer durables	155011001					
15.	Govt. pension and insurance (FoF)	363154005					224090005
16.	Capital gain divi- dends of invest- ment comp (FoF)	656120000				656120000	
17.	Gross saving (FoF)	156000105	136000105	116300005	106000105	[ 406006003 + 696000105 + 716006003 + 726000105 ]	206000105

**Table B.4**  
**TEXT TABLE 3, SAVING, 1976**  
**(FoF computer tape codes)**

Line	Federal Govern- ment	Un- allo- cated	National Total	Net Foreign	Total	NIPA Total <sup>a</sup>
1. Personal saving			156007105		156007105	156007105
2. Wage accruals less disbursements (NIPA)						836700003
3. Undistributed cor- porate profits (NIPA)			96006001		96006001	96006001
4. Inventory valuation adjustment (NIPA)			105020601		105020601	105020601
5. Capital consumption adjustment (NIPA)			96310003		96310003	96310003
Capital consumption allowances with CCAdj						
6. Corporate			96300003		96300003	96300003
7. Noncorporate			176300003		176300003	176300003
8. Government surplus or deficit (NIPA)	316061105		366061105		366061105	366061105
9. Capital grants re- ceived by the U.S.						
10. Gross saving (NIPA)						[ 836006005 + 366061105 ]
11. Statistical dis- crepancy (NIPA)						87005005
12. Gross saving plus statistical dis- crepancy (NIPA)						[ 836006005 + 366061105 + 87005005 ]
13. NIPA "net foreign investment" (sign reversed)				266000105	266000105	
14. Consumer durables			155011001		155011001	
15. Govt. pension and insurance (FoF)	313154005					
16. Capital gain divi- dends of invest- ment comp (FoF)						
17. Gross saving (FoF)	316000105		886000105	266000105	[ 886000105 + 266000105 ]	

<sup>a</sup>FoF NIPA code numbers may not yield annual saving flows (sum over four quarters) equal to those published by the Department of Commerce, *National Income and Product Accounts, op. cit.*

Table B.5

TEXT TABLE 4, GROSS INVESTMENT\* AND SAVING, 1976  
(FoF computer tape codes)

Line	Households	Farm Business	Nonfarm Non-corporate Business	Nonfarm Non-financial Corporate	Financial Business	State and Local Government
1. Gross private domestic investment (NIPA)						
2. Net foreign investment (NIPA)						
3. Gross investment (NIPA)						
4. Consumer durables	155011001					
5. Net financial investment (FoF)	155000005	135000005	115000005	105000005	695000005	205000005
6. Mineral rights from U.S. Govt. (FoF)				105030003		
7. Gross investment (FoF)	155090005	136000105	116300005	105090005	695090005	205000005
8. Residential discrepancy						
9. Gross investment* (FoF)	155090005	136000105	116300005	105090005	695090005	205000005
10. Sectoral differences	157005005			107005005	797005005	207005005
11. Gross saving (FoF)	156000105	136000105	116300005	106000105	406006003 + 696000105 + 716006003 + 726000105	206000105
12. Gross investment (FoF)						
13. Less consumer durables						
14. Plus NIPA "net foreign investment"						
15. Equals NIPA gross investment						
16. Gross saving (FoF)						
17. Less consumer durables						
18. Plus NIPA discrepancy						
19. Plus NIPA "net foreign investment"						
20. NIPA gross saving plus NIPA discrepancy						

Table B.6

TEXT TABLE 4, GROSS INVESTMENT\* AND SAVING, 1976  
(FoF computer tape codes)

Line	Federal Government	Unallocated	National Total	Net Foreign	Total	NIPA Total <sup>a</sup>
1. Gross private domestic investment (NIPA)						85050005
2. Net foreign (NIPA)						885005005
3. Gross investment (NIPA)						8509005
4. Consumer durables			155011001		155011001	155011001
5. Net financial investment (FoF)	315000005	905000005	88500005	265000005		
6. Mineral rights from U.S. Govt. (FoF)	105030003					
7. Gross investment (FoF)	315090005	905000005	885090005	26500005	[ 885090005 + 265000005 ]	[ 8509005 + 155011001 ]
8. Residential discrepancy		R <sup>b</sup>	R		R	
9. Gross investment* (FoF)	315090005	905000005	885090005		[ 885090005 + 265000005 ]	[ 8509005 + 155011001 ]
10. Sectoral differences	317005005	905000005	(c)	267005005	90600005	87005005
11. Gross saving (FoF)	316000105		886000105	266000105	[ 886000105 + 266000105 ]	[ 836006005 + 366061105 ]
Memorandum						
12. Gross investment (FoF)					[ 885090005 + 265000005 ]	
13. Less consumer durables					155011001	
14. Plus NIPA "net foreign investment"					885005005	
15. Equals NIPA gross investment					85090005	85090005
16. Gross saving (FoF)					[ 886000105 + 266000105 ]	
17. Less consumer durables					155011001	
18. Plus NIPA discrepancy					87005005	
19. Plus NIPA net foreign investment					885005005	
20. NIPA gross saving plus NIPA discrepancy					[ 836006005 + 366061105 + 87005005 ]	[ 836006005 + 366061105 + 87005005 ]

<sup>a</sup> These FoF codes reconcile FoF-reported NIPA entries with FoF entries. FoF-reported NIPA entries for NIPA gross private domestic investment, net foreign investment, gross investment, gross saving, and discrepancy often differ from those reported in *The National Income and Product Accounts, op. cit.*

<sup>b</sup> R = cannot be estimated from FoF codes.

<sup>c</sup> The FoF code number for the national total is a summation of the domestic and foreign sector discrepancies. There is no appropriate FoF code number.

Table B.7

TEXT TABLE 6, EXPANDED GROSS HOUSEHOLD SECTOR, 1976  
(FoF computer tape codes)

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Investment	
1. Capital expenditures	155050005
2. Nonresidential plant & equipment	155013003
3. Residential investment	155012005
4. Consumer durables	155011001
5. Net financial investment	155000005
6. Net acquisition of financial assets	154090005
7. Net increase in liabilities	154190005
8. Gross household investment	155090005
Saving	
9. NIPA personal saving	156007105
10. Capital consumption allowances	156300005
11. Nonresidential plant & equipment and Residential capital consumption allowances	156300103+ 156300203
12. Consumer durables capital consump- tion allowances	156300303
13. Other sources of saving	
14. Credit for government pension and insurance	363154005
15. Capital gains dividends of invest- ment companies	656120000
16. Net investment in consumer durables	155011065
17. Gross household saving	156000105
18. Household sectoral difference	
19. Gross household saving plus sectoral difference	

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Table B.8  
 TEXT TABLE 8, INDIVIDUALS' AND PERSONAL SAVINGS  
 (FoF computer tape codes)

Line		
1.	Increase in financial assets	174090005
2.	Gross investment in tangible assets	175050005
3.	Capital consumption allowances	176300005
4.	Net investment in tangible assets	175005005
5.	Net increase in debt	174190005
6.	Individuals' saving	176006005
7.	Less: Government insurance and pension reserves	363154005
8.	Less: Net investment in consumer durables	155011065
9.	Less: Capital gain dividends	656120000
10.	Less: Net saving by farm corporations	136006005
11.	Personal saving, FoF basis	176007005
12.	Personal saving, NIPA basis	156007105
13.	Difference	176007905
Memorandum		
14.	Net individuals' saving	
15.	Less: Government insurance and pension reserves	363154005
16.	Less: Net investment in consumer durables	155011065
17.	Less: Capital gain dividends	656120000
18.	Less: Net saving by farm corporations	136006005
19.	Personal saving, NIPA basis	156007105

