Financial Accounts in the United States

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Originally prepared for the Group of Financial Statisticians
Financial Accounts Seminar
Paris, France
May 15-17, 1995

Revised August 2001

*The analysis and conclusions are those of the author and do not necessarily indicate concurrence by the Board of Governors of the Federal Reserve System, the Federal Reserve Banks, or members of their staffs.

Introduction

1. The United States program to produce a set of aggregate financial accounts is more than fifty years old. After a decade of internal work, a set of annual financial accounts was published in 1955, and data showing quarterly flows have been available since August 1959. At the present time, our flow of funds publication reflects a full set of aggregate financial accounts for the nation, with quarterly data beginning in 1952 for both financial flows and end-of-period amounts outstanding.

2. Balance sheets for the household and nonprofit organization sector and the nonfinancial corporation sector are also included in our flow of funds publication. They combine financial positions with estimates of tangible assets to derive net worth. The sector balance sheets are published with quarterly data. Corresponding reconciliation tables, which provide details on the type of flows (investment, depreciation, capital gains/losses) that account for changes in net worth, are also published. Balance sheets for other sectors of the economy are estimated for internal use, but the quality of the tangible asset data is not sufficient for publication at this time.

Consistency with Other National Accounts

3. The U.S. flow of funds accounts (FFA) have always endeavored to maintain consistency with the national income and product accounts (NIPA) that are published by the U.S. Department of Commerce. A starting point in compiling the accounts is the use of data on national saving and capital expenditures from the national income and product accounts. Indeed, a summary derivation of saving, a source of funds, is typically provided on the flow of funds sector tables. Similarly, we usually show capital expenditures, with its components, as a use of funds.

4. An overview of the structure of the flow of funds accounts is provided in the simplified matrix in exhibit 1. As can be seen, the matrix combines elements of capital and financial accounts set out in the System of National Accounts 1993 (SNA). The items on line 1, gross saving, and line 3, capital expenditures, are taken, with little alteration, from the national income and product accounts. Despite our reliance on the NIPA, we have chosen to make certain reclassifications of the published data. Importantly, these changes do not reflect disagreements over measurement, but rather an alternative view of how to allocate activity by sectors.

5. The two most important reclassifications are summarized in exhibit 2. First, outlays by households and nonprofit organizations for consumer durable goods are considered capital expenditures in the FFA. They are considered personal consumption in the NIPA, which is also the suggested treatment in the SNA. However, at times we have found the FFA treatment more useful analytically because a substantial portion of household durable goods outlays are financed with debt and because durable goods provide services over a long period of time. The outlays enter the sectors' statements as both a form of saving and as a capital expenditure and thus do not affect the balances between sources and uses of funds. An even more analytically correct treatment would

be to adjust outlays in the NIPA by the service flow from durable consumer goods rather than the full amount of the expenditure.

6. A second difference between the FFA and the NIPA involves access rights that are sold by the federal government to private corporations. Such access rights (bonuses paid) are not shown in the NIPA, but we consider the sale a capital receipt by the federal government and a capital expenditure of the nonfarm nonfinancial corporate business sector in the FFA.

7. The following lists other differences between the FFA and the NIPA, but they are minor in terms of dollar magnitudes:

- The U.S. allocation of special drawing rights (SDRs) is considered a capital transfer from abroad in the NIPA and is thus part of gross saving; in the FFA, it is treated only as an adjustment in the level of U.S. holdings of SDRs and thus is excluded from saving.

- Wage accruals less disbursements are included in saving in the NIPA, but they are excluded from saving in the FFA; they are a component of the nonfinancial discrepancy in the FFA.

- Saving and investment by corporate farms are in the farm business sector in the FFA, but they are in the nonfinancial corporate business sector in the NIPA.

- State and local governments and state and local government employee retirement funds are separate sectors in the FFA, but they are combined into one sector in the NIPA.

8. Finally, the FFA differ in two ways from the U.S. balance of payments accounts (BOP):

- International banking facilities are treated as domestic entities in the BOP, but they are considered part of the rest of the world sector in the FFA.

- The FFA use the NIPA measure of exports and imports rather than the BOP measure. A reconciliation of the NIPA and BOP measures can be found in U.S. Commerce Department publications.[1]

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[1] In July 1999, several changes were made to the BOP that brought them into closer alignment with international transactions in the NIPA and with the international guidelines recommended in the fifth edition of the International Monetary Fund's *Balance of Payments Manual*.

Presentation of the Accounts: Sector Classifications, Instrument Categories, and Level of Aggregation

9. The accounts are presented in an official statistical release of the Board of Governors of the Federal Reserve System (Z.1). Data are shown in time series format. A sample table for the nonfarm nonfinancial corporate business sector (F.102) is provided in appendix 1. As noted earlier, each sector table shows gross saving and gross investment, with detail for capital expenditures and changes in financial assets and liabilities. Each sector has a corresponding table for end-of-period outstandings in the publication, and a sample copy of the table with outstandings for the nonfarm nonfinancial corporate business sector (L.102) is provided in appendix 2. A sample copy of the complete flow of funds matrix is provided in appendix 3.

10. Exhibit 3 lists the nonfinancial sectors in the accounts. The components of the domestic nonfinancial group, lines 1 through 6, are fairly straightforward and would appear to be consistent with the SNA. Included in this grouping are the household sector, the business sector, and the government sector. The combined debt of this group was monitored until just recently by the Federal Open Market Committee, which oversees central bank open market operations, and this aggregate is published as a monthly series.

11. The household sector (line 1) consists of individuals, families, and all types of nonprofit organizations such as charitable organizations, private foundations, schools, churches, labor unions, and hospitals. In recent publications, we have included a table with estimates of financial flows and positions for nonprofit institutions.

12. The business grouping (lines 2 through 4) is composed of three sectors: nonfarm nonfinancial corporate business, nonfarm noncorporate business, and farm business. Nonfarm nonfinancial corporate business is by far the largest of the three business sector components. Nonfarm noncorporate business consists of partnerships, sole proprietorships, tax-exempt cooperatives, and individuals who receive rental income on non-owner-occupied structures. Farm business consists of corporate and noncorporate farms.

13. The government grouping (lines 5 and 6) consists of the federal government and the state and local government sectors. A consolidated statement for this grouping is included in our release as a supplementary table. State and local government employee retirement plans are treated as a separate financial sector. State and local governments are often grouped with the household and business sector; the group is referred to as the domestic nonfederal nonfinancial sectors (lines 1 through 5).

14. Except for the rest of the world sector (line 7), the remaining sectors in the accounts refer to financial entities, which are listed in the next two exhibits. Federal government-related financial institutions and depository institutions are shown in exhibit 4. Government-sponsored enterprises (line 1) provide credit to other sectors in the form of mortgage loans, farm loans, and student loans. The monetary authority sector (line 3)

consists primarily of the Federal Reserve System but also includes certain monetary accounts of the U.S. Treasury that are not part of the federal government sector.

15. The commercial banking sector (lines 4 through 7) consists of four banking groups: U.S.-chartered commercial banks, foreign banking offices in the U.S., bank holding companies, and banks in U.S.-affiliated insular areas such as Puerto Rico and Guam. The bank holding companies included here are the parent companies of banks and have as their major assets their net investments in their bank and nonbank subsidiaries. The other depository institutions, saving institutions and credit unions (lines 8 and 9), are not part of the commercial banking sector.

16. Exhibit 5 shows the large number of private nondepository financial sectors in the FFA. Included here are such institutions as insurance companies, pension funds, mutual funds, finance companies, bank personal trusts and estates, security brokers and dealers, and issuers of asset-backed securities. This latter sector (line 9) is not a group of institutions, but rather it represents a set of contractual arrangements. The sector issues liabilities in the form of corporate bonds and commercial paper that are backed by pools of assets, such as mortgages, credit card receivables, business loans, student loans, and trade receivables, that have been originated by financial institutions.

17. In the U.S. we have been able to provide considerable detail by financial instrument categories. Altogether, there are more than fifty types of instruments shown in the publications. Exhibit 6 lists those instrument categories and groupings dealing mainly with reserves, interbank claims, and deposits. The reserves backing life insurance policies and pension fund claims are separate instrument categories (lines 3 and 4). Deposits, loans, and other transactions between banks, thrifts, and the monetary authority are included in the instrument category called interbank claims (line 5). A variety of deposit categories are shown separately in the accounts; included are U.S. deposits in foreign countries (line 6), checkable deposits and currency (line 7), time and savings deposits (line 8), and money market mutual fund shares (line 9).

18. A particularly important group of instruments for analysis is credit market instruments, which is shown in exhibit 7. Included in this set are open market paper, U.S. government securities, municipal debt securities, corporate bonds, mortgages, consumer credit, other bank loans, and a variety of other types of loans. Many of these individual categories are broken down even further in the accounts. For example, for mortgages (line 25), home, multifamily residential, commercial, and farm mortgages are each shown separately. The instruments grouped as credit market instruments represent borrowing and lending between sectors. Equities are excluded from this grouping because they do not represent a credit transaction, but rather are a claim on ownership.

19. Exhibit 8 lists the remainder of the instrument categories in the accounts. Included here are equity issues, both mutual fund shares (line 1) and stock issued by corporations (line 2). Investment in noncorporate business by individuals is a separate category (line 7). Identified miscellaneous financial claims (line 9) consist of instruments for which we do not construct separate tables. Included are some equity investments,

such as foreign direct investment and investment of parent companies in their subsidiaries. In addition, minor instruments that have only one or two lending or borrowing sectors are included here.

Sources of Information and Data Collection Methods

20. A misconception often encountered when describing the sources for the U.S. flow of funds accounts is that the information is collected specifically for the accounts. Nothing could be further from the truth. Indeed, almost no information is collected specifically for the accounts. Rather, we rely on a wide variety of government, central bank, and private sources for data. The *Guide to the Flow Funds Accounts* lists thirteen pages of major sources, and exhibit 9 summarizes the broad categories of data with some examples.[2]

21. Regulatory reports, the first category of the exhibit, include several sources of data that are gleaned from submissions required of certain types of institutions. For example, U.S.-chartered commercial banks, branches and agencies of foreign banks operating in the U.S., bank holding companies, banks in U.S.-affiliated areas, credit unions, and other savings institutions that accept federally insured deposits submit detailed quarterly reports to their primary regulator—the Federal Reserve, the Federal Deposit Insurance Corporation, the Comptroller of the Currency, the National Credit Union Administration, or the Office of Thrift Supervision. Security brokers and dealers, who underwrite and distribute securities, are required to file quarterly reports with the U.S. Securities and Exchange Commission. Data for our monetary authority sector are derived from reports submitted by the twelve Federal Reserve Banks to the Federal Reserve Board.

22. The second category in exhibit 9 gives examples of required tax reports, which, when used for aggregate statistics, provide useful data sources for the FFA. Because all businesses are required to file, the aggregate data derived from the large samples of income tax returns of nonfinancial corporations, partnerships, and sole proprietorships provide a good benchmark for the business sector. Once a year private pension funds must file with the U.S. Internal Revenue Service Form 5500, the *Annual Return/Report of Employee Benefit Plans*. Nonprofit organizations also must file a similar form each year. Tabulations by the U.S. Treasury of these tax returns are the main sources of data for nonprofit organizations in our accounts.

23. The third category lists surveys conducted by the Federal Reserve Board and the Federal Reserve Banks that provide estimates for data in the flow of funds accounts. The Federal Reserve Board samples lenders monthly to compile data on consumer credit. Another survey conducted by the Board samples about sixty-five finance companies to obtain estimates on their asset and liability positions. In addition, every three years the Board sponsors a survey of over 4,000 households, the *Survey of Consumer Finances.*

[2] Board of Governors of the Federal Reserve System, *Guide to the Flow of Funds Accounts* (Washington: 2000).

Recently, we have been using this survey to check the accuracy of the amount of certain types of financial assets held by the household sector.

24. The fourth category of source material in exhibit 9 lists a few of the government agencies who supply data. These agencies collect data in the process of monitoring their own programs and for review by the public and by policy makers. We obtain data on federal government borrowing and lending from U.S. Treasury publications. The national income and product accounts, the U.S. international transactions data, and data on state and local governments are all published by the Department of Commerce. Some data for the farm sector are available from the Department of Agriculture. Government-sponsored enterprises, previously part of the federal government but now privately owned, are require to prepare detailed annual statements for their stockholders, as well as monthly figures that track their financial activity. Assets of state and local governments are estimated using a sample of their annual reports.

25. The fifth category provides a few examples of the variety of nongovernmental sources on which we depend. These sources compile statistics on specific types of institutions or markets. For example, mutual funds have a trade association that reports aggregate balance sheet data on the activity of their members. Credit unions have a similar type of trade association.

26. Data collected by rating agencies are also used. A.M. Best Company, which rates life insurance companies and property and casualty insurance companies, has available data that provide statistics on the assets and liabilities of these sectors. Similarly, Standard & Poor's Compustat Services, Inc., which rates companies that issue securities, provides information on the volume of equity retired from share repurchases. In addition, private data-collection firms assemble data for clients that are also useful in producing the flow of funds accounts. These include firms that collect data on real estate investment trusts, collateralized mortgage obligations, and gross issuance of bonds and equities. Securities repositories supply statistics on commercial paper held in custody and timely sample data on private pension funds.

27. With so many sources, the description of the data used to estimate a single sector statement is at times complex. Certainly the descriptions of sources for some sectors are fairly straightforward. For example, exhibit 10 shows the important source material needed for compiling the U.S.-chartered commercial banks sector. As shown on line 1, the *Reports of Condition* that the banks submit to their regulator forty-five days after the end of a quarter provide most of the data for financial assets and liabilities. Just prior to our publication date, banks' transactions with their parent holding companies (line 4) become available, and we have a complete picture of the sector.

28. The federal government sector (exhibit 11) is also fairly straightforward, although this sector requires a few more sources than the banking sector. With the publication of the preliminary estimate of the U.S. national income and product accounts (line 1) and the *Monthly Treasury Statement of Receipts and Outlays of the U.S. Government* (line 2), reasonable estimates of this sector's balance sheet can be constructed. A few additional

sources of information, such as the U.S. international transactions (line 3), bank regulatory reports (line 4), and U.S. government loan data (line 6), fill out the balance sheet prior to publication of the quarter.

29. The nonfinancial corporate business sector (exhibits 12 and 13) is an example of a sector where the sources are more varied and where it takes six months or more before much of the data are available. In fact, the tabulations of aggregate statistics from business income tax returns by the U.S. government, that are used to provide benchmarks for this sector, are not available for two and one-half years after the filing (line 4). Up to that point, estimates of the sectors' financial assets are based on a smaller sample of corporations that engage in manufacturing, mining, and trade (line 3). It is also important to note the many data sources necessary to estimate this sector. Federal Reserve System surveys on consumer credit lending (line 7) and finance company lending (line 12) are used. Regulatory reports provide data on lending to business by depository institutions (line 10), and a securities repository provides data on commercial paper issuance (line 11). Finally, private data-collection firms and rating agencies supply statistics on equity and bond issuance by nonfinancial businesses (line 8 and line 9).

30. In addition, as can be seen from exhibits 12 and 13, estimates on the nonfinancial corporate business sector rely on sources with varying frequency—from monthly to annually. The lags in availability of the sources also vary, ranging from one day to two and one-half years after the period reported.

Timeliness and Frequency of Compilation of the Accounts

31. The U.S. financial accounts are typically published nine to ten weeks after the end of the quarter. By that time a sufficient number of data sources are available for estimating flows and end-of-period positions for the current quarter. Previously published quarterly estimates may be revised with each publication, using any new information that has become available for these back periods. In addition, structural changes resulting from new estimation procedures or changes in U.S. financial markets may be incorporated into the accounts.

32. With preparation of the second-quarter statistical release in September, the annual revision of the national income and product accounts, which usually is published in July and typically covers the data for the preceding three years, and the annual revision of the balance of payments accounts are incorporated. Also, at this time, we reestimate our seasonal factors for the latest ten years.

Methods Used in Compiling the Accounts to Handle Special Problems

33. Aside from the straightforward method of collecting the necessary data, making necessary adjustments for definitional differences, and then putting the figures in their proper slots, we have no unusual methods for compiling the accounts. Nonetheless, there are three broad areas where problems persist.

34. As shown in exhibit 14, seasonal adjustment is one of these areas. In our publications, quarterly flows are presented at seasonally adjusted annual rates, while amounts outstanding are shown on a not-seasonally-adjusted basis. Flow data are seasonally adjusted with the X-11-ARIMA/88 procedure developed by Statistics Canada.[3] An additive adjustment is used on the series, and the output of the procedure is a set of seasonal factors for each series that are added to the unadjusted flow data to obtain the seasonally adjusted flows. The X-11-ARIMA/88 procedure is run over the most recent ten-year period at the time of the second-quarter release.

35. To determine whether a series is to be seasonally adjusted, an F-test is performed on all the basic inputs in the flow of funds database, including unpublished intermediate series. Staff members of the Flow of Funds Section review the results of the series for their sectors to determine whether the data for a series exhibit statistically significant seasonal variation and whether the seasonal variation is stable over the most recent ten-year period. For those series that pass the test, new seasonal factors are applied. One result of the greater complexity of financial markets in recent years has been that fewer series pass the test for seasonal adjustment each year, and that a greater amount of the variations in flows appears to be due to cyclical and irregular factors.

36. We do not seasonally adjust calculated series; the seasonal factors for these series are implied from their component input series. As a result, the seasonally adjusted flow for a series calculated from numerous other series, such as the household sector's holdings of Treasury securities, reflects a weighted average of seasonal factors of those other series. This procedure sometimes results in seasonally adjusted flows with more erratic movements than would be the case if the series were seasonally adjusted directly.

37. A second problem we must deal with when compiling the accounts is missing data. Some information used in constructing sector statements is produced or published by the original sources only as annual data. Two regularly used methods for converting the annual data to quarterly form are the K-L method and the ratio method. The K-L method is a mathematical interpolation procedure that creates quarterly values based on the behavior of the annual series in preceding and subsequent years.[4] In the ratio method, the series is calculated as a proportion of a related quarterly series on an annual total flow or year-end level basis. The quarterly series is then multiplied by the ratio calculated for each year to obtain quarterly values for the series being interpolated.

38. The advantage of the K-L method is that it is purely mathematical and requires no additional information. It is suitable for calculating values for a large number of series. In contrast, the ratio method has the advantage of basing the quarterly movement on another related series that has actual quarterly data available. However, data calculated using the ratio method must be reviewed carefully when the related quarterly series reflects economic events that could distort the results.

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[3] We expect to use the X-12-ARIMA procedure in September 2001.

[4] The K-L method is named after Hyman Kaitz and Maurice Liebenberg, former statisticians at the U.S. Department of Commerce who developed a similar method of converting annual data to quarterly. The exact formulation of the K-L method is shown in pp. 33-34 of the *Guide*.

39. Also, with every publication, there are series for which data for the most recent periods are not yet available. A linear extrapolation procedure is one method used to estimate current values. Like the K-L method mentioned above, this is a purely mathematical procedure based on the past behavior of the series. It is useful for series that exhibit little variation over a year, or whose current behavior is not well known. However, for some series, staff members make estimates on the basis of their knowledge of current economic conditions for the sectors or markets.

40. One additional problem we address is the inconsistency that arises when there may be more than one source for a component series. There is no specific method for dealing with this problem. Sector analysts must try to determine which source represents a more complete universe and what might be the cause of any differences. We have found that data sources required by regulatory agencies tend to be more complete and timely. Sample surveys sometimes are biased due to underrepresentation of part of the universe. In the end, the sector analyst must judge which will be the primary data source.

Valuation Methods, Reconciliation Accounts, and Balancing Items

41. There are a number of issues we encounter regarding valuation in the accounts (exhibit 15). We believe consistency among sectors is very important, and there is a need to adjust certain data to achieve this consistency. However, in addition to consistency, one of our goals is to present the data in the most analytically useful form.

42. The principles regarding financial flows are fairly straightforward. A substantial effort is made to eliminate changes owing to price movements from these flows. In essence, our guiding principle is to report “net funds raised” on the liability side or, equivalently, “net funds supplied” on the asset side. As a result, an attempt is made to present flows at transaction prices.

43. In theory, outstandings for financial assets and liabilities are reported at book or cost value in the flow of funds accounts. However, there are a number of exceptions that require some clarification. One exception is the value of corporate equity outstanding, which is shown at market value. This market value of total corporate equity is the sum of the value of domestic stock listed on the U.S. exchanges, foreign stock held by U.S. residents, and an estimate of equity in private U.S. corporations. Thus, unrealized capital gains or losses are reflected in the values of outstanding equities.

44. In contrast, the total value of mutual fund shares reflects a mixture of market and book valuations of assets. Mutual fund holdings of corporate equities are valued at market, whereas the bond holdings are valued at book. Financial asset positions that are denominated in foreign currencies are stated at the value of the dollar exchange rate at the end of the period, and the outstandings reflect any movement in exchange rates over the period.

45. With regard to tangible assets shown on the full balance sheets, estimates for reproducible assets outstanding are valued at current cost; reproducible assets include business plant and equipment, inventories, and consumer durables. Current-cost valuation expresses all assets in the capital stock at the prices that would have been paid for them if they had been purchased new at that time. Real estate, on the other hand, is expressed at market value.

46. We continue to study the issues presented by valuation of assets and liabilities. Even as we do, new problems arise. A few years ago, newly adopted accounting procedures required depository institutions to report available-for-sale securities at market value and held-to-maturity securities at book. Previously, the institutions had only reported the book values of securities. However, due to our recent efforts, depository institutions are required also to report the book value for all security holdings at their U.S. offices.

47. Unfortunately, some other financial institutions provide data on security holdings based solely on the market value of their portfolio. In order to maintain consistency among sectors, it is necessary to use price indexes to convert assets of these sectors to a book value. For those assets subject to frequent turnover, the flows calculated by differencing book level outstandings could differ significantly from the true flow due to capital gains and losses that are realized and reinvested. Adjustments to approximate the transaction price of flows are sometimes made.

48. With regard to reconciliation accounts (exhibit 16), the publication “Flow of Funds Accounts of the United States” contains stock-flow reconciliation tables for the household and nonprofit organization sector and for the nonfarm nonfinancial corporation sector. A purpose of the reconciliation tables is to account for the changes in wealth. For individual sectors, changes in nominal wealth are the result of physical investment net of depreciation, net financial investment, and changes in asset price levels.

49. In general, the reconciliation tables conform to SNA specification regarding explanations of changes in net worth. They differ, however, in format and in the fact that statistical discontinuities are included with the revaluation figures. Work is under way to augment the detail in the reconciliation tables, and perhaps to publish a full set of reconciliation accounts as suggested by the SNA.

50. With regard to balancing items (exhibit 17), we generally do not use net borrowing or lending within sectors to balance the accounts. Instead, statistical discrepancies are calculated when there is an imbalance owing to data limitations within a sector’s balance sheet or between the two sides of an instrument category.

51. Sector discrepancies represent the difference between all measured sources of funds and all measured uses of funds for the sector. This includes the sources and uses from the capital account. They are the result of the inconsistencies among the different data sources, including in many cases the incompatibilities between NIPA sources and financial data sources. In addition, the statistical discrepancy in the national income and

product accounts—the difference, for all sectors, between gross saving from current income (total sources of funds) and gross private capital expenditures (total uses of funds)—affects the flow of funds sector statements.

52. Sector discrepancies vary in magnitude due to the number of data sources used, their compatibility, and their accuracy. However, for some sectors, such as the federal government and the banks, where the quality of data is believed to be good, sizable discrepancies still occur owing in part to differences in the timing of recorded transactions.

53. Instrument discrepancies occur when there is no universe total for that instrument category. For example, in the market for federal funds and security repurchase agreements, there are data on the lending by some sectors and the borrowing by some sectors. Total net borrowing is determined by summing the data we have for the known group of borrowers. A similar calculation is made on the lending side. The difference between the lending and borrowing is reported as a discrepancy for that instrument category.

54. Many instrument categories do not have discrepancies because the total universe for that financial instrument is known. In that case, we treat one sector as the residual lender or residual borrower. For example, we know the exact amount of U.S. Treasury debt issued and outstanding. Data on purchases of such debt are available for most sectors, except for the household sector. In this case, the household sector is the residual lender to the federal government.

55. Studying the discrepancies in the accounts has been useful. When the sector or instrument discrepancies are out of line with historical norms, the data in the accounts are reexamined for errors and poor estimates of missing data. Sizable discrepancies or persistent discrepancies of a given size frequently tell us something about our data sources and where improvement efforts should be focused. The discrepancies are also useful in maintaining the internal consistency of the accounts. The sum of the sector discrepancies must equal the sum of the instrument discrepancies.

56. As the charts in exhibit 18 show, the sum of all discrepancies in the U.S. accounts has varied quite a lot over the past four decades. In absolute terms, the amount appears to have grown substantially, reaching $150 billion four times in the last twelve years, as shown in the top panel. In fact, for the last twenty years, the total system discrepancy appears to have exhibited much more volatility than in the previous two decades. However, as shown in the lower panel, the total system discrepancy has never been much higher than 1/2 percent of total financial assets for all sectors.

Globalization of Financial Markets and Introduction of New Financial Instruments

57. There is no question that as the markets for lending and borrowing have become more global in nature, collecting reliable data and compiling the U.S. accounts has become more difficult (exhibit 19). Expanding the information on foreign activity from institutions that are directly supervised has been easier. For example, data on foreign deposits held by U.S. residents were first collected by asking U.S. corporations what deposits they had placed abroad. Responses indicated that there were only small amounts. However, when the U.S. government asked foreign central banks what deposits belonged to U.S. addresses, the amounts were significantly larger. Of particular importance were data on deposits at Caribbean branches of U.S. banking institutions. After several years of effort, new estimates on foreign deposits became available, and these were incorporated in the FFA in 1994. However, even these data appear problematic, as they suggest much larger deposit amounts than firms report in alternative sources. While figures in the FFA reflect the most recent data consistent with the BOP, efforts are still under way to reconcile these estimates with alternative sources.

58. Similar problems exist for collecting data on bank loans to U.S. businesses that are booked offshore. Data are collected from U.S. branches and agencies of foreign banks, which often arrange the loan transactions for their parents abroad. Data on loans made by Caribbean branches of U.S. banking firms were collected for the first time in 1993. They indicated a greater volume of loans than had been reported in the U.S. Determining the extent of coverage and reliability of these data is again a concern.

59. In addition to data-collection problems, the rise of multinational and global firms has, to some extent, reduced the significance of the domestic corporation as the appropriate unit of economic analysis. Corporations have expanded their operations, as well as their financing, outside the borders of the U.S. Currently, no alternative sectorization is available.

60. Globalization also has led to the creation of entities that until recently did not appear in our accounts. One problem that we addressed a few years ago was the recording of transactions for U.S.-incorporated firms whose sole purpose is to raise money in commercial paper markets and upstream the proceeds to the parent abroad. These firms issued commercial paper in U.S. credit markets but were not a component of any sector in the accounts. Our solution was to create a new sector we call "Funding Corporations," which includes firms involved in such activities, as well as other firms involved in similar types of financial transactions in domestic markets.

61. As mentioned earlier, the increase in securitization of assets during the past decade led to the creation of another new sector in the accounts, "Issuers of Asset-Backed Securities." For many years, depository institutions and specialized mortgage originators had packaged home real estate loans and sold them to government-related institutions, who in turn issued securities with these mortgages as collateral. But more recently, private corporations have expanded into similar types of securitization. They began to issue securities backed by whole mortgage loans, credit card receivables, trade

receivables, business loans, student loans, consumer leases, and even mortgage-pool securities. We have found the need to expand our issuers of asset-backed securities sector continually as these market innovations have occurred. In order to more fully understand the scope of this market, beginning this summer commercial banks will be required to report information to their regulator on the various types of loans they have securitized and continue to service.

62. We do not account for derivatives. Currently, U.S.-registered banks are required to report revaluation gains on interest-rate, foreign-exchange-rate, and commodity and equity contracts as a trading account liability. Since there are strict requirements limiting the netting of offsetting positions, the effect is to gross up both the banks' total financial assets and liabilities. An adjustment is made to remove the revaluation effects from the flows.

63. More recently, however, the U.S. accounting industry issued a statement on accounting for derivative instruments and hedging activity. It requires all entities that use generally accepted accounting procedures (GAAP) for their financial statements to recognize derivatives on their balance sheet at fair value. For most entities the effective date would be January 1, 2001. The Board of the International Accounting Standards Committee (IASC) issued a similar statement, also effective January 1, 2001. Exactly how we deal with such transactions is still unclear, as there is no experience with the data.

Exhibit 1

SIMPLIFIED FLOW OF FUNDS MATRIX, 2000
(Billions of dollars)

Item	Private domestic nonfinancial sectors		Rest of the world		Federal government		Financial sectors		Total	
	U	**S**	**U**	**S**	**U**	**S**	**U**	**S**	**U**	**S**
1. Gross saving and net capital transfers*	…	2218	…	427	…	342	…	86	…	3073
2. Gross investment	2283	…	400	…	321	…	55	…	3059	…
3. Capital expenditures*	2762	…	…	…	105	…	122	…	2990	…
4. Net financial investment	-479	…	400	…	215	…	-67	…	69	…
5. Net acquisition of financial assets	1014	…	869	…	-57	…	2341	…	4166	…
6. Net increase in liabilities	…	1492	…	469	…	-273	…	2409	…	4097
7. Discrepancy	-65	…	28	…	21	…	31	…	15	...
8. Total	2218	2218	427	427	342	342	86	86	3073	3073

*From the national income and product accounts.

Exhibit 2

SIGNIFICANT DIFFERENCES FROM NIPA DATA

1. Household outlays for durable goods are treated as capital expenditures.

2. Access rights sold by the federal government are treated as capital outlays by businesses and a source of funds to the government. Such sales are excluded from the NIPA data.

Exhibit 3

NONFINANCIAL SECTORS

1. Households and nonprofit organizations

2. Nonfarm nonfinancial corporate business
3. Nonfarm noncorporate business
4. Farm business

Business

5. State and local governments, excluding employee retirement funds
6. Federal government

Government

Domestic nonfinancial sectors

7. Rest of the world

Exhibit 4

FEDERAL GOVERNMENT–RELATED AND DEPOSITORY SECTORS

1. Government-sponsored enterprises 2. Federally related mortgage pools 3. Monetary authority	Federal government-related institutions
4. U.S.-chartered commercial banks 5. Foreign banking offices in the U.S. 6. Bank holding companies 7. Banks in U.S.-affiliated areas	Commercial banking
8. Savings institutions 9. Credit unions	Thrift institutions

Exhibit 5

PRIVATE NONDEPOSITORY FINANCIAL SECTORS

1. Life insurance companies 2. Other (property-casualty) insurance companies 3. Private pension funds 4. State and local government employee retirement funds	Insurance companies and pension funds
5. Bank personal trusts and estates 6. Money market mutual funds 7. Mutual funds 8. Closed-end funds 9. Issuers of asset-backed securities 10. Finance companies 11. Mortgage companies 12. Real estate investment trusts 13. Security brokers and dealers 14. Funding corporations	Finance not elsewhere classified

Exhibit 6

INSTRUMENT CATEGORIES FOR RESERVES, INTERBANK CLAIMS, AND DEPOSITS

1. Gold and official foreign exchange holdings 2. Special drawing rights certificates and Treasury currency	Monetary reserves
3. Life insurance reserves 4. Pension fund reserves	Insurance and pension fund reserves
5. Net interbank claims	Interbank claims
6. U.S. deposits in foreign countries 7. Checkable deposits and currency 8. Time and savings deposits 9. Money market mutual fund shares 10. Federal funds and security repurchase agreements	Deposits and federal funds

Exhibit 7

INSTRUMENT CATEGORIES FOR CREDIT MARKET INSTRUMENTS

	Credit market instruments
1. Open market paper	
2. Commercial paper	
3. Bankers acceptances	
4. U.S. government securities	
5. Treasury issues	
6. Savings bonds	
7. Other Treasury issues	
8. Agency issues	
9. Securities issued by federal agencies	
10. Loan participations	
11. Securities issued by government-sponsored enterprises	
12. Federally guaranteed mortgage pool securities	
13. Municipal debt securities and loans	
14. Corporate and foreign bonds, including private mortgage-pool securities	
15. Bank loans not elsewhere classified	
16. Other loans	
17. U. S. government loans	
18. Foreign loans to U.S. nonfarm nonfinancial corporate business	
19. Customers' liability on acceptances outstanding	
20. Savings institution loans to business	
21. Policy loans on life insurance	
22. Loans from government-sponsored enterprises	
23. Loans to households and business held by issuers of asset-backed securities	
24. Finance company loans to business	
25. Total mortgages	
26. Home mortgages	
27. Multifamily residential mortgages	
28. Commercial mortgages	
29. Farm mortgages	
30. Consumer credit	

Exhibit 8

INSTRUMENT CATEGORIES FOR EQUITY AND MISCELLANEOUS CLAIMS

1. Mutual fund shares 2. Corporate equities	Equity issues
3. Trade credit 4. Security credit 5. Taxes payable by businesses 6. Investment in bank personal trusts and estates 7. Proprietors’ equity in noncorporate business 8. Total miscellaneous financial claims 9. Identified miscellaneous financial claims 10. Unidentified miscellaneous financial claims	Other claims
11. Sector discrepancies 12. Instrument discrepancies	Discrepancies

Exhibit 9

TYPES OF SOURCE MATERIAL FOR U.S. FLOW OF FUNDS ACCOUNTS

1. Regulatory reports
   - Banks and thrifts report to supervisory agencies
   - Security brokers and dealers report to U.S. Securities and Exchange Commission
   - District Federal Reserve Banks report to Federal Reserve Board

2. Tax reports submitted to the U.S. government
   - Noncorporate and corporate business income tax returns
   - Private pension funds' returns
   - Nonprofit organizations' returns

3. Federal Reserve System surveys
   - Lenders of consumer credit
   - Finance companies assets and liabilities
   - *Survey of Consumer Finances*

4. Data compiled by other government agencies
   - U.S. Treasury
   - Department of Commerce
   - Department of Agriculture
   - Government-sponsored enterprises
   - State and local governments

5. Nongovernment statistical sources
   - Trade associations
     - Mutual funds
     - Credit unions
   - Rating agencies
     - Life insurance companies
     - Fire and casualty insurance companies
     - Public securities
   - Other
     - Data services
     - Financial news services
     - Securities repositories

Exhibit 10

IMPORTANT SOURCE MATERIAL FOR U.S.-CHARTERED COMMERCIAL BANKS SECTOR—TABLE F.110

Source material	Line numbers	Frequency	Availability
1. Tabulation of reports submitted to bank regulators.	3-26, 31, 33-41, 43-44	Quarterly	Forty-five days after end of quarter.
2. Tabulation of reports submitted by the twelve Federal Reserve banks to the Federal Reserve Board.	part of line 4, 29, 30	Daily	About one week after date.
3. International data compiled by the U.S. Department of the Treasury.	32	Monthly	Six weeks after end of month.
4. Tabulation of reports submitted by bank holding companies to the Federal Reserve Board.	31, 46	Quarterly	Eight weeks after end of quarter.

Exhibit 11

IMPORTANT SOURCE MATERIAL FOR FEDERAL GOVERNMENT SECTOR—TABLE F.106

Source material	Line Numbers	Frequency	Availability
1. U.S. national income and product accounts—published by the U.S. Department of Commerce.	1-14, 19, part of line 31	Quarterly	Preliminary estimates available two months and final estimates three months after end of quarter.
2. Federal government borrowing and cash balance—published by the U.S. Department of the Treasury.	15, 24, part of lines 31, 32, and 43 34-40, 42	Monthly	One month after end of month.
3. U.S. international transactions—published by the U.S. Department of Commerce.	23	Quarterly	Two and one-half months after end of quarter.
4. Tabulation of reports submitted by banks to bank regulators.	25	Quarterly	Forty-five days after end of quarter.
5. Mortgage lending data for federal government corporations.	28	Quarterly	Two to three months after end of quarter.
6. U.S. government loan data—published by the U.S. Department of the Treasury.	29	Quarterly	Two months after end of month.

Exhibit 12

IMPORTANT SOURCE MATERIAL FOR NONFINANCIAL CORPORATIONS SECTOR—TABLE F.102

Source Material	Line Numbers	Frequency	Availability
1. U.S. national income and product accounts-- published by the U.S. Department of Commerce.	1-9, 11, 13	Quarterly	Preliminary estimates available two months and final estimates three months after end of quarter.
2. Tangible asset data published by the U.S. Department of Commerce.	12	Annual	Eight months after end of year.
3. Published estimates based on a survey of firms taken by U.S. Bureau of the Census.	17-19, 21-24, 27, 51, 52	Quarterly	Two and one-half months after end of quarter.
4. A compilation of assets and liabilities estimated from a sample of corporate income tax reports filed with the federal government.	17-19, 21-25, 27, 51	Annual	About two and one-half years after end of year.
5. Mutual fund data published by the Investment Company Institute, a trade association.	20, 28	Annual	Five months after end of year.
6. U.S. international transactions—published by the U.S. Department of Commerce.	30, 48, 54	Quarterly	Two and one-half months after end of quarter.

Exhibit 13

IMPORTANT SOURCE MATERIAL FOR NONFINANCIAL CORPORATIONS SECTOR—TABLE F.102 (continued)

Source Material	Line Numbers	Frequency	Availability
7. Compilation of survey data on lenders of consumer credit taken by the Federal Reserve.	26	Monthly	Five weeks after end of month.
8. Data collected by Securities Data Company, a private data collection firm.	Part of lines 37, 40, and 41	Monthly	One month after end of month.
9. Data collected by Standard & Poor's Compustat Services, Inc., a rating agency.	Part of line 37	Quarterly	Six months after end of quarter.
10. Tabulation of reports submitted by banks and thrifts to bank and thrift regulators.	42, 44, 47	Quarterly	Forty-five days after end of quarter.
11. Data compiled by Depository Trust Company, a securities repository.	39	Monthly	One day after end of month.
12. Compilation of survey data on finance companies taken by the Federal Reserve.	45	Quarterly	Five weeks after end of quarter.

Exhibit 14

METHODS USED TO HANDLE SPECIAL PROBLEMS

- Seasonal adjustment.
  - Only flows are adjusted.
  - Seasonals recalculated once a year.
  - X-11-ARIMA/88—additive adjustment from Statistics Canada is used.*
  - Only inputs that test positive for seasonality are adjusted.

- Methods for handling missing data.
  - When only annual data are available.
    --K-L method.
    --Ratio method.
  - When most recent data are not available.
    --Simple extrapolation.
    --Judgmental and econometric methods.

- More than one source for an instrument category.

*We expect to use the X-12-ARIMA procedure in September 2001.

Exhibit 15

METHODS OF VALUATION

- Primary considerations are consistency among sectors and analytical usefulness.

- Flows are presented on a “net funds raised” or “net funds supplied” basis.

- For levels, financial assets and liabilities are generally at book value, with two major exceptions.
  - --Equities outstanding are at market value.
  - --Assets denominated in foreign currencies are valued at period-end dollar exchange rate.

- Tangible assets are valued at current cost, except real estate which is at market value.

- Recent special issues.
  - --Depository holdings of securities held to maturity vs. those available-for-sale.
  - --Appropriate methods for converting market value to book value.
  - --Problems from realized capital gains.

Exhibit 16

RECONCILIATION ACCOUNTS

- Annual stock-flow reconciliation tables are published for:
  - --Households and nonprofit organizations.
  - --Nonfarm nonfinancial corporations.

- Changes in wealth reflect:
  - --Net physical investment.
  - --Financial investment.
  - --Changes in asset price level.

- Augmenting reconciliation accounts is contemplated for future publications.

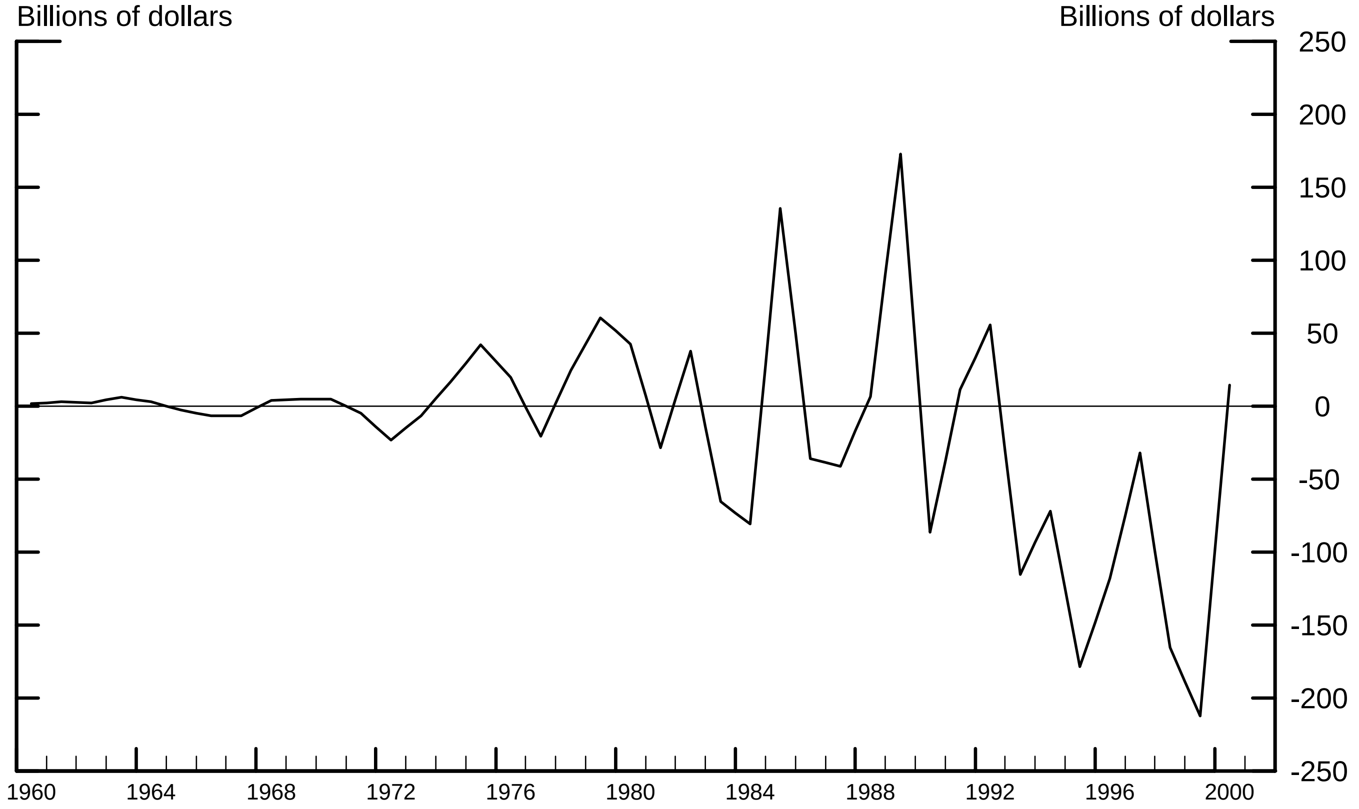
Exhibit 17

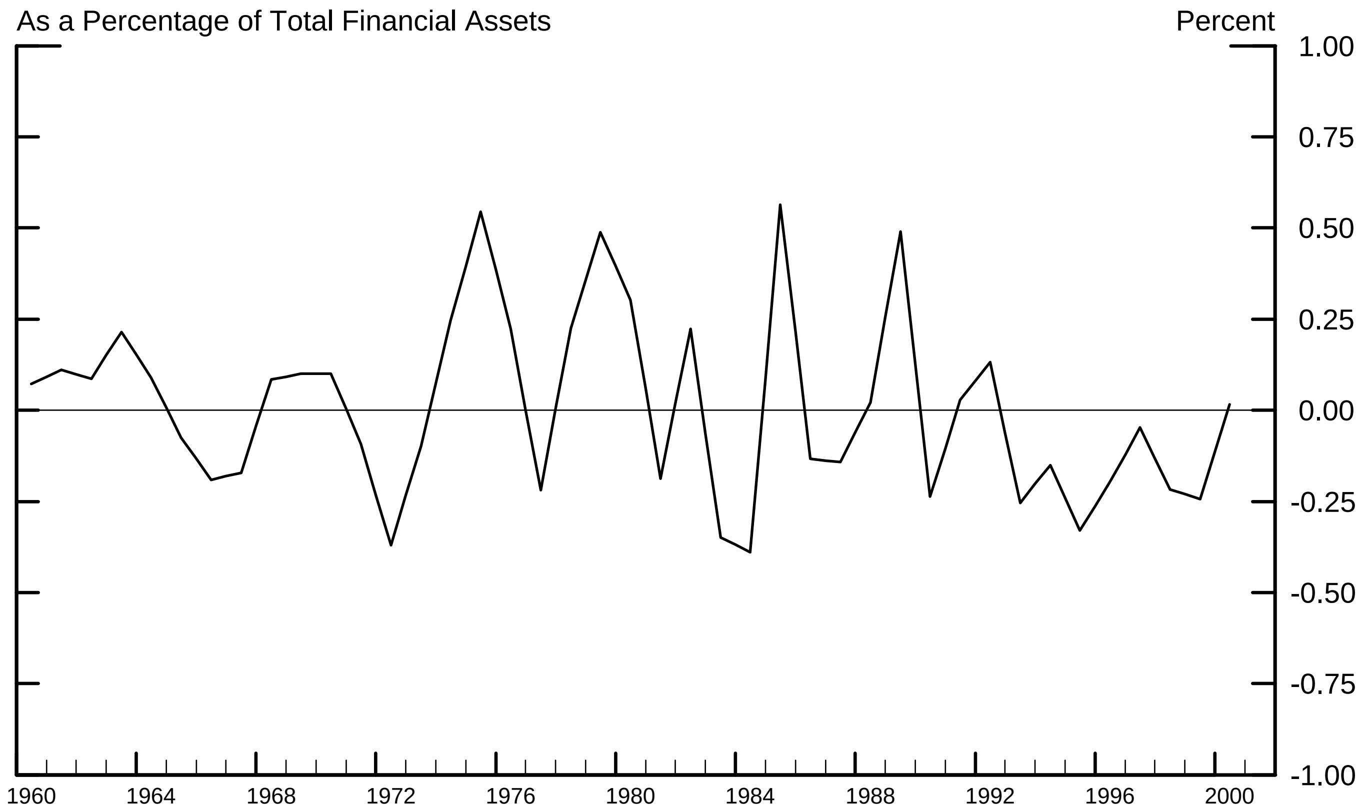
BALANCING ITEMS

- Equalization of net borrowing/net lending by sector is not forced; rather, where appropriate a residual borrower or lender is used.
- Discrepancies are calculated for most sectors and for some instrument categories.
- Analysis of discrepancies over time has been useful for evaluating the quality of the estimates.
- The size of discrepancies for particular sectors and for the system total has varied substantially, but is small relative to total financial assets.

Exhibit 18

Discrepancy in the U.S. Flow of Funds Accounts*





*The difference between all sources and all uses of funds, including those in the capital accounts, as published on June 8, 2001.

Exhibit 19

PROBLEMS PRESENTED BY GLOBALIZATION OF MARKETS AND NEW INSTRUMENTS

- Severe data limitations as activities expand across borders.
- Creation of new entities has led to additional sectors or expansion of current sectors.
- New accounting rules for derivatives go into effect in year 2001.

F.102 Nonfarm Nonfinancial Corporate Business

Billions of dollars; quarterly figures are seasonally adjusted annual rates

		1995	1996	1997	1998	1999	2000	2000 Q1	2000 Q2	2000 Q3	2000 Q4	2001 Q1	
1	Profits before tax (book)	421.6	458.8	494.5	487.2	536.6	587.7	596.9	617.0	604.3	532.6	501.9	1
2	- Profit tax accruals	136.3	149.6	157.9	158.9	166.0	182.1	185.4	192.9	187.7	162.3	150.6	2
3	- Dividends	178.3	200.9	216.4	238.0	248.2	265.4	259.7	261.7	266.8	273.2	290.2	3
4	+ Consumption of fixed capital	471.8	504.2	539.7	574.8	621.7	666.8	649.2	660.8	672.5	684.7	697.3	4
5	= U.S. internal funds, book	578.8	612.5	659.9	665.1	744.0	807.1	801.0	823.3	822.2	781.9	758.3	5
6	+ Foreign earnings retained abroad	59.5	60.5	59.3	64.4	69.6	96.9	86.9	89.1	96.8	114.8	125.1	6
7	+ Inventory valuation adjustment (IVA)	-18.3	3.1	8.5	17.0	-9.1	-12.9	-25.0	-13.6	-4.5	-8.5	-3.5	7
8	+ Net capital transfers (1)	0	0	0	0	0	0	0	0	0	0	0	8
9	**= Total internal funds + IVA**	**619.9**	**676.0**	**727.6**	**746.5**	**804.5**	**891.1**	**862.9**	**898.8**	**914.5**	**888.2**	**879.9**	**9**
10	**Gross investment**	**693.1**	**692.6**	**645.5**	**803.2**	**853.1**	**927.1**	**897.1**	**949.5**	**934.5**	**927.2**	**924.3**	**10**
11	**Capital expenditures**	**660.4**	**687.7**	**778.6**	**853.6**	**940.2**	**1059.6**	**1002.8**	**1063.7**	**1098.9**	**1073.2**	**1008.7**	**11**
12	Fixed investment (2)	612.2	661.8	712.9	776.9	897.1	1006.1	972.0	993.9	1034.1	1024.2	1032.5	12
13	Inventory change + IVA	40.1	21.0	57.0	72.6	41.4	53.0	30.8	68.6	64.1	48.5	-24.0	13
14	Access rights from federal government	8.1	4.8	8.8	4.1	1.7	0.6	0	1.2	0.7	0.5	0.3	14
15	**Net financial investment**	**32.7**	**4.8**	**-133.1**	**-50.4**	**-87.1**	**-132.6**	**-105.7**	**-114.2**	**-164.4**	**-146.0**	**-84.4**	**15**
16	**Net acquisition of financial assets**	**423.6**	**403.3**	**150.3**	**570.6**	**638.4**	**607.6**	**845.8**	**681.4**	**567.7**	**335.3**	**295.5**	**16**
17	Foreign deposits	1.6	10.5	-5.1	7.4	-2.3	0.8	-23.6	16.9	52.0	-42.1	-46.3	17
18	Checkable deposits and currency	31.3	36.8	30.7	14.9	74.7	70.9	107.1	88.2	45.5	42.7	29.5	18
19	Time and savings deposits	-24.5	0.7	-7.3	-5.0	4.0	5.0	-27.1	8.5	10.4	28.2	39.9	19
20	Money market fund shares	24.8	9.9	23.9	36.1	33.1	50.4	9.9	3.6	79.0	109.1	138.2	20
21	Security RPs	0.3	1.5	0.7	-0.4	1.1	-0.1	3.1	-7.6	-0.9	5.1	-9.9	21
22	Commercial paper	1.3	11.4	4.6	3.3	4.3	1.6	5.4	0.4	6.8	-6.2	-35.1	22
23	U.S. government securities	9.8	-4.9	-40.8	-0.6	-2.1	2.0	18.3	19.3	2.6	-32.1	-11.0	23
24	Municipal securities	-19.9	-5.8	-3.6	-1.6	-3.4	10.9	6.3	8.1	6.9	22.4	22.8	24
25	Mortgages	1.6	-3.6	25.9	-13.0	-7.0	-5.0	-5.0	-5.0	-5.0	-5.0	-5.0	25
26	Consumer credit	-1.6	-7.3	1.2	-4.1	5.4	2.4	46.5	-8.0	-14.5	-14.7	38.6	26
27	Trade receivables	78.0	88.1	93.5	86.3	113.4	104.7	198.3	100.3	109.8	10.2	39.9	27
28	Mutual fund shares	4.6	3.3	-8.2	7.3	-1.8	-1.8	-1.8	-1.8	-1.8	-1.8	-1.8	28
29	Miscellaneous assets	316.3	262.7	34.9	439.9	419.1	365.8	508.5	458.4	276.8	219.4	95.7	29
30	U.S. direct investment abroad (3)	90.3	76.8	84.5	128.3	137.3	116.7	132.1	108.9	91.0	134.8	32.1	30
31	Insurance receivables	8.2	2.6	1.9	6.9	0.2	1.6	2.1	0.2	8.1	-3.9	-1.6	31
32	Equity in GSEs	-0.2	-0.2	-1.1	-0.7	-0.6	0.0	-0.1	-1.5	0.3	1.2	-1.3	32
33	Investment in finance co. subs.	4.6	4.6	2.2	-1.4	31.0	11.3	42.6	-16.1	14.4	4.4	-16.1	33
34	Other	213.3	178.9	-52.5	306.8	251.1	236.1	331.8	366.9	163.0	82.9	82.5	34
35	**Net increase in liabilities**	**390.8**	**398.5**	**283.5**	**621.0**	**725.5**	**740.1**	**951.5**	**795.6**	**732.1**	**481.4**	**379.9**	**35**
36	Net funds raised in markets	169.2	79.6	152.0	125.0	311.3	270.7	542.0	333.3	194.6	12.7	197.9	36
37	Net new equity issues	-58.3	-69.5	-114.4	-267.0	-143.5	-166.6	61.2	-245.2	-87.7	-394.8	-33.9	37
38	Credit market instruments	227.5	149.1	266.5	392.0	454.7	437.3	480.8	578.5	282.3	407.5	231.8	38
39	Commercial paper	18.1	-0.9	13.7	24.4	37.4	48.1	29.8	110.4	56.1	-4.0	-207.2	39
40	Municipal securities (4)	3.1	3.1	4.2	5.8	5.1	1.4	1.3	0.3	0.5	3.3	1.2	40
41	Corporate bonds (3)	91.1	116.3	150.5	218.7	229.9	175.0	186.2	153.8	184.4	175.6	400.0	41
42	Bank loans n.e.c.	66.8	39.4	71.4	80.9	72.9	74.5	76.7	152.8	22.5	46.0	1.9	42
43	Other loans and advances	32.3	18.5	48.5	47.3	37.6	75.8	123.3	96.2	-33.7	117.4	-27.8	43
44	Savings institutions	1.2	1.5	1.6	2.7	3.2	4.3	5.6	3.9	5.0	2.8	4.1	44
45	Finance companies	24.0	7.1	8.1	26.1	51.9	59.4	95.6	69.6	30.2	42.2	-8.9	45
46	U.S. government	1.9	-1.3	-0.3	-0.1	-0.3	-0.4	-0.6	-0.4	-0.7	-0.0	0.3	46
47	Acceptance liabilities to banks	-0.8	-0.7	-2.6	-4.3	-2.2	-0.0	3.1	-0.8	-3.7	1.3	10.1	47
48	Rest of the world	0.0	3.9	17.3	-1.0	-22.7	-2.2	-11.6	26.1	-51.3	27.9	-30.1	48
49	ABS issuers	5.9	8.1	24.4	23.8	7.7	14.7	31.3	-2.3	-13.2	43.2	-3.2	49
50	Mortgages	16.1	-27.2	-21.8	15.0	71.9	62.5	63.4	65.0	52.5	69.2	63.7	50
51	Trade payables	81.0	49.5	65.1	57.6	144.4	90.4	151.2	48.2	122.1	40.3	24.8	51
52	Taxes payable	-0.0	9.6	9.3	4.8	7.0	7.3	14.2	23.1	-22.4	14.1	18.9	52
53	Miscellaneous liabilities	140.7	259.8	57.0	433.5	262.8	371.8	244.0	391.0	437.8	414.2	138.3	53
54	Foreign direct investment in U.S.	53.6	72.0	101.4	153.6	240.0	210.4	70.9	344.2	180.3	246.2	67.4	54
55	Pension fund contributions payable	4.1	4.1	7.1	1.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	55
56	Other	83.1	183.7	-51.5	278.0	21.9	160.4	172.1	45.8	256.5	167.0	69.9	56
57	Discrepancy	-73.2	-16.6	82.1	-56.7	-48.6	-36.0	-34.2	-50.7	-20.0	-39.0	-44.3	57
	Memo:												
58	Financing gap (5)	99.9	72.2	110.3	171.5	205.3	265.5	226.8	254.0	281.2	299.8	253.9	58

(1) Table F.9, line 6.
(2) Nonresidential fixed investment plus residential fixed investment, shown in table F.6, lines 10 and 16 respectively.
(3) Through 1992:Q4, corporate bonds include net issues by Netherlands Antillean financial subsidiaries, and U.S. direct investment abroad excludes net inflows from those bond issues.
(4) Industrial revenue bonds. Issued by state and local governments to finance private investment and secured in interest and principal by the industrial user of the funds.
(5) Capital expenditures (line 11) less the sum of U.S. internal funds (line 5) and inventory valuation adjustment (line 7).

L.102 Nonfarm Nonfinancial Corporate Business

Billions of dollars; amounts outstanding end of period, not seasonally adjusted

		1994	1995	1996	1997	1998	1999	2000 Q1	2000 Q2	2000 Q3	2000 Q4	2001 Q1	
1	**Total financial assets**	**4479.4**	**4960.9**	**5460.1**	**5806.7**	**6545.4**	**7379.7**	**7593.6**	**7797.5**	**7945.5**	**8041.2**	**8092.6**	1
2	Foreign deposits	14.0	15.6	26.1	21.0	28.4	26.1	20.2	24.4	37.4	26.9	15.3	2
3	Checkable deposits and currency	221.6	252.9	289.8	320.5	335.4	410.1	415.1	455.1	468.0	481.0	466.6	3
4	Time and savings deposits	67.5	42.9	43.6	36.3	31.3	35.3	28.5	30.6	33.2	40.3	50.2	4
5	Money market fund shares	52.2	77.0	86.9	110.7	146.9	179.9	182.4	183.3	203.0	230.3	264.9	5
6	Security RPs	2.2	2.4	3.9	4.6	4.2	5.3	6.1	4.2	4.0	5.2	2.8	6
7	Commercial paper	18.8	20.1	31.5	36.1	39.4	43.7	39.6	38.9	42.3	45.3	30.8	7
8	U.S. government securities	70.7	80.5	75.6	34.8	34.2	32.1	36.7	41.5	42.1	34.1	31.4	8
9	Municipal securities	56.7	36.8	31.0	27.4	25.7	22.3	23.9	25.9	27.7	33.3	38.9	9
10	Mortgages	56.4	57.9	54.4	80.2	67.3	60.3	59.0	57.8	56.5	55.3	54.0	10
11	Consumer credit	86.6	85.1	77.7	78.9	74.9	80.3	72.9	73.5	72.1	82.7	71.8	11
12	Trade receivables	1107.0	1184.9	1273.1	1366.6	1452.9	1566.3	1638.9	1688.1	1723.4	1670.9	1705.1	12
13	Mutual fund shares	31.1	45.7	59.9	69.1	91.0	113.9	117.5	111.4	111.0	98.8	85.9	13
14	Miscellaneous assets	2694.7	3059.0	3406.7	3620.4	4213.8	4804.0	4952.8	5062.6	5124.8	5237.1	5274.9	14
15	U.S. direct investment abroad (1)	685.6	778.7	863.2	923.8	1047.8	1159.8	1195.2	1224.7	1249.2	1276.5	1286.1	15
16	Insurance receivables	175.4	183.6	186.2	188.1	195.0	195.2	195.7	195.7	197.7	196.8	196.4	16
17	Equity in GSEs	2.0	1.8	1.6	0.5	-0.2	-0.8	-0.8	-1.2	-1.1	-0.8	-6.5	17
18	Investment in finance company subs.	20.9	25.5	30.2	32.3	30.9	61.9	72.6	68.6	72.1	73.2	69.2	18
19	Other	1810.9	2069.4	2325.6	2475.7	2940.4	3387.9	3490.2	3574.9	3606.7	3691.3	3729.7	19
20	**Total liabilities**	**5627.4**	**6009.5**	**6378.6**	**6628.8**	**7232.6**	**7920.1**	**8140.2**	**8308.9**	**8482.3**	**8599.6**	**8686.6**	20
21	Credit market instruments	2685.0	2912.5	3095.3	3359.9	3751.9	4241.0	4392.5	4544.7	4603.7	4678.3	4771.4	21
22	Commercial paper	139.2	157.4	156.4	168.6	193.0	230.3	260.8	296.8	307.0	278.4	253.2	22
23	Municipal securities (2)	131.7	134.8	137.9	142.0	147.8	152.8	153.3	153.4	153.9	154.2	154.7	23
24	Corporate bonds (1)	1253.0	1344.1	1460.4	1610.9	1829.6	2059.5	2106.0	2144.5	2190.6	2234.5	2334.5	24
25	Bank loans n.e.c.	521.0	587.7	627.2	698.1	778.9	851.8	872.8	910.3	914.8	926.3	928.6	25
26	Other loans and advances	421.4	453.7	472.2	520.6	567.9	605.5	642.8	664.7	651.3	681.3	681.0	26
27	Savings institutions	5.1	6.4	7.9	9.4	12.1	15.3	16.7	17.7	19.0	19.7	20.7	27
28	Finance companies	247.4	271.4	278.5	286.7	312.8	364.6	391.1	408.7	410.2	424.0	424.6	28
29	Federal government	8.0	10.0	8.7	8.4	8.3	8.0	7.9	7.7	7.6	7.6	7.6	29
30	Acceptance liabilities to banks	15.0	14.2	13.4	10.8	6.6	4.4	4.9	4.9	4.6	4.3	6.6	30
31	Rest of the world	122.1	122.1	126.0	143.3	142.3	119.5	120.8	124.8	112.4	117.3	113.9	31
32	ABS issuers	23.7	29.6	37.7	62.1	85.9	93.6	101.5	100.9	97.6	108.4	107.6	32
33	Mortgages	218.7	234.8	241.3	219.8	234.8	341.1	356.8	375.0	386.0	403.6	419.5	33
34	Trade payables	796.5	877.5	927.0	992.1	1049.7	1194.1	1206.1	1216.3	1253.0	1284.5	1265.5	34
35	Taxes payable	40.3	40.3	49.9	59.2	64.1	71.0	82.3	79.6	79.6	78.3	90.7	35
36	Miscellaneous liabilities	2105.5	2179.2	2306.4	2217.5	2366.9	2414.0	2459.3	2468.3	2545.9	2558.4	2559.0	36
37	Foreign direct investment in U.S.	592.2	641.1	696.3	752.9	823.9	992.6	1016.7	1110.2	1161.7	1203.0	1228.9	37
38	Pension fund contributions payable	78.3	82.4	86.4	93.5	95.4	96.4	96.7	96.9	97.2	97.4	97.7	38
39	Other	1435.0	1455.7	1523.7	1371.1	1447.6	1324.9	1346.0	1261.1	1286.9	1258.0	1232.4	39
	Memo:												
40	Trade receivables net of payables	310.4	307.4	346.1	374.5	403.2	372.2	432.8	471.8	470.3	386.4	439.6	40
41	Market value of equities	4811.9	6435.0	7618.6	9674.2	11521.8	15030.3	15598.4	14723.5	14200.9	12201.3	10564.6	41
42	Securities and mortgages	1603.4	1713.7	1839.5	1972.6	2212.1	2553.4	2616.0	2672.9	2730.5	2792.3	2908.6	42
43	Loans and short-term paper	1081.6	1198.8	1255.8	1387.3	1539.8	1687.7	1776.4	1871.8	1873.2	1886.1	1862.7	43
44	Total short-term liabilities (3)	1918.4	2116.6	2232.6	2438.6	2653.5	2952.8	3064.8	3167.7	3205.9	3248.9	3219.0	44
45	Total liquid assets (4)	534.7	574.0	648.3	660.6	736.5	868.8	869.9	915.4	968.7	995.3	986.9	45
	Analytical measures (percent)												
46	Long-term debt/credit market debt	59.7	58.8	59.4	58.7	59.0	60.2	59.6	58.8	59.3	59.7	61.0	46
47	Short-term debt/credit market debt	40.3	41.2	40.6	41.3	41.0	39.8	40.4	41.2	40.7	40.3	39.0	47
48	Liquid assets/short-term liabilities	27.9	27.1	29.0	27.1	27.8	29.4	28.4	28.9	30.2	30.6	30.7	48

(1) Through 1992:Q4, corporate bonds include net issues by Netherlands Antillean financial subsidiaries, and U.S. direct investment abroad excludes net inflows from those bond issues.
(2) Industrial revenue bonds. Issued by state and local governments to finance private investment and secured in interest and principal by the industrial user of the funds.
(3) Loans (except mortgages), short-term paper, taxes payable, and trade payables. Includes loans due in more than one year and excludes current maturities of bonds and mortgages.
(4) Sum of lines 2 through 9, plus line 13.

Appendix 3 - Flow of Funds Matrix for 1999

(Billions of dollars; All Sectors -- Flows)

		Households and Nonprofit Organizations		Nonfinancial Business		State and Local Governments		Federal Government		Domestic Nonfinancial Sectors		Rest of the World		Financial Sectors		All Sectors		Instrument Discrep-ancy	Memo: National Saving and Investment
		U	S	U	S	U	S	U	S	U	S	U	S	U	S	U	S	U	
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
1	Gross saving and net cap. transfers	--	1022.1	--	964.9	--	196.8	--	210.3	--	2394.1	--	312.5	--	78.3	--	2784.9	--	2472.4
2	Capital consumption	--	677.1	--	724.3	--	106.8	--	92.8	--	1601.0	--	--	--	89.5	--	1690.5	--	1690.5
3	Net saving (1 less 2)	--	381.2	--	240.6	--	90.0	--	117.5	--	829.3	--	312.5	--	-11.2	--	1094.4	--	781.9
4	Gross investment (5 plus 11)	1082.5	--	1013.5	--	216.9	--	206.8	--	2519.7	--	319.9	--	157.7	--	2997.3	--	-212.4	2398.4
5	Capital expenditures	1168.0	--	1126.8	--	210.9	--	96.1	--	2601.8	--	--	--	116.4	--	2718.2	--	66.7	2718.2
6	Consumer durables	759.4	--	--	--	--	--	--	--	759.4	--	--	--	--	--	761.3	--	--	761.3
7	Residential	344.8	--	57.4	--	--	--	--	--	402.2	--	--	--	1.6	--	403.8	--	--	403.8
8	Nonresidential	63.9	--	1024.4	--	210.9	--	97.9	--	1397.0	--	--	--	114.8	--	1511.8	--	--	1511.8
9	Inventory change	--	--	43.3	--	--	--	--	--	43.3	--	--	--	--	--	43.3	--	--	43.3
10	Access rights from fed. govt.	--	--	1.7	--	--	--	-1.7	--	0.0	--	--	--	--	--	--	--	--	--
11	Net financial investment	-85.5	--	-113.4	--	6.1	--	110.7	--	-82.1	--	319.9	--	41.3	--	279.1	--	-279.1	-319.9
12	Financial uses	531.3	--	715.8	--	87.5	--	77.3	--	1411.9	--	723.0	--	2535.5	--	4670.4	--	-279.1	403.1
13	Financial sources	--	616.7	--	829.2	--	81.4	--	-33.3	--	1494.0	--	403.1	--	2494.2	--	4391.3	--	723.0
14	Gold and off. fgn. exchange	--	--	--	--	--	--	-7.1	--	-7.1	--	-0.0	-8.7	-1.6	--	-8.7	-8.7	--	--
15	SDR certificates	--	--	--	--	--	--	--	-3.0	--	-3.0	--	--	-3.0	--	-3.0	-3.0	--	--
16	Treasury currency	--	--	--	--	--	--	--	1.0	--	1.0	--	--	1.7	--	1.7	1.0	-0.7	--
17	Foreign deposits	5.2	--	-2.3	--	--	--	--	--	2.9	--	--	86.5	12.2	--	15.2	86.5	71.3	--
18	Interbank claims	--	--	--	--	--	--	--	--	--	--	-6.5	--	20.5	17.6	14.0	17.6	3.5	--
19	Checkable dep. and currency	-65.3	--	82.9	--	3.9	--	66.2	--	87.7	--	40.0	--	32.0	151.4	159.6	151.4	-8.2	--
20	Time and savings deposits	109.7	--	16.0	--	10.9	--	0.7	--	137.3	--	15.0	--	23.0	175.3	175.3	175.3	--	--
21	Money market fund shares	124.1	--	33.5	--	--	--	--	--	157.6	--	--	--	91.5	249.1	249.1	249.1	--	--
22	Fed. funds and security RPs	--	--	1.1	--	5.0	--	--	--	6.1	--	14.8	--	118.9	169.7	139.8	169.7	29.9	--
23	Credit market instruments	189.4	532.4	-1.3	575.3	43.4	52.3	5.8	-71.2	237.3	1088.8	210.6	25.3	1743.4	1077.2	2191.3	2191.3	--	--
24	Open market paper	2.0	--	4.3	37.4	1.9	--	--	--	8.2	37.4	-13.1	16.3	234.7	176.2	229.9	229.9	--	--
25	Treasury securities	-31.5	--	-3.4	--	-2.5	--	--	-71.0	-37.5	-71.0	-8.3	--	-25.2	--	-71.0	-71.0	--	--
26	Federal agency securities	142.5	--	1.9	--	28.5	--	0.0	-0.2	172.9	-0.2	94.1	--	324.8	592.0	591.7	591.7	--	--
27	Municipal securities	42.5	10.4	-3.4	5.1	-1.5	52.7	--	--	37.6	68.2	--	--	30.6	--	68.2	68.2	--	--
28	Corporate and fgn. bonds	34.2	--	--	229.9	12.6	--	--	--	46.8	229.9	160.6	14.2	247.8	211.1	455.2	455.2	--	--
29	Bank loans n.e.c.	--	-7.2	--	90.0	--	--	--	--	--	82.7	--	0.5	68.9	-14.3	68.9	68.9	--	--
30	Other loans and advances	--	14.6	--	46.3	--	-0.4	5.9	--	5.9	60.6	-22.7	-5.7	178.8	107.1	162.0	162.0	--	--
31	Mortgages	-0.3	420.2	-6.0	166.6	4.3	--	-0.1	0.0	-2.1	586.9	--	--	594.0	5.1	592.0	592.0	--	--
32	Consumer credit	--	94.4	5.4	--	--	--	--	--	5.4	94.4	--	--	89.0	--	94.4	94.4	--	--
33	Corporate equities	-272.0	--	--	-143.5	3.5	--	--	--	-268.5	-143.5	98.1	114.4	143.7	2.4	-26.7	-26.7	--	--
34	Mutual fund shares	164.1	--	-1.8	--	4.3	--	--	--	166.6	--	--	--	21.8	188.3	188.3	188.3	--	--
35	Trade credit	--	7.1	130.0	154.6	--	29.1	4.6	0.3	134.6	191.0	-7.9	4.3	23.1	11.9	149.8	207.3	57.5	--
36	Security credit	47.2	75.2	--	--	--	--	--	--	47.2	75.2	0.0	0.0	57.1	29.1	104.3	104.3	--	--
37	Life insurance reserves	50.8	--	--	--	--	--	--	1.4	50.8	1.4	--	--	--	49.4	50.8	50.8	--	--
38	Pension fund reserves	184.5	--	--	--	--	--	--	41.1	184.5	41.1	--	--	--	143.4	184.5	184.5	--	--
39	Taxes payable	--	--	--	9.1	4.4	--	8.1	--	12.5	9.1	--	--	--	7.0	12.5	16.1	3.6	--
40	Inv. in bank personal trusts	-7.1	--	--	--	--	--	--	--	-7.1	--	--	--	--	-7.1	-7.1	-7.1	--	--
41	Equity in noncorp. business	-10.8	--	--	-32.9	--	--	--	--	-10.8	-32.9	--	--	--	22.1	-10.8	-10.8	--	--
42	Miscellaneous	11.6	2.1	457.7	266.6	12.1	--	-0.9	-2.9	480.4	265.8	359.0	181.3	251.1	207.4	1090.5	654.6	-436.0	--
43	Sector discrepancies (1 less 4)	-60.4	--	-48.6	--	-20.1	--	3.5	--	-125.6	--	-7.4	--	-79.4	--	-212.4	--	-212.4	74.1

General notes: U = use of funds; S = source of funds. Domestic nonfinancial sectors (columns 9 and 10) are households and nonprofit organizations, nonfinancial business, state and local governments, and federal government.