MONETARY AND FINANCIAL STATISTICS MANUAL

INTERNATIONAL MONETARY FUND

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Contents

CONTENTS

TEXT BOXES

APPENDICES

Foreword

The financial crises of the 1990s exposed weaknesses in the international financial system, highlighting the fact that globalization brings risks as well as important benefits. In response, the international community has mobilized to strengthen the architecture of the international financial system, which comprises the institutions, markets, and practices that governments, businesses, and individuals use when they carry out economic and financial activities. An important element of the "architecture" initiative involves the development and implementation of internationally accepted standards, adherence to which would help ensure that economies function properly at the national level, which is a prerequisite for a well-functioning international system.

In consultation with others, the IMF has developed standards or codes of good practices in its main areas of responsibility. Among these are standards to guide member countries in the dissemination of economic and financial data to the public. These standards—the *Special Data Dissemination Standard* and the *General Data Dissemination System*—comprise a number of elements of good practice in data dissemination. As an essential complement to, and outgrowth of, these standards, the IMF has also intensified efforts to assist countries in improving the quality of their data, including through the development of internationally agreed guidelines on statistical methodology. I am accordingly very pleased to introduce the *Manual on Monetary and Financial Statistics*, which should prove an important aid to countries as they seek to enhance their statistics in this area. The *Manual*, which is the first volume of its kind in the field of monetary and financial statistics, takes its place alongside the IMF's other manuals on statistical methodology—the *Balance of Payments Manual* and the *Government Finance Statistics Manual*. Like these other manuals, the concepts set out in the *Manual* are harmonized with those of the *System of National Accounts 1993*.

This *Manual* has been prepared by the IMF's Statistics Department in close consultation with experts in monetary and financial statistics in member countries and international and regional organizations. I would like to thank all of the experts involved for their invaluable assistance and for their collaborative and cooperative spirit. I would like to commend the *Manual* to compilers of monetary and financial statistics and to urge countries to adopt the *Manual*'s concepts as a basis for the statistics that they disseminate to the public and report to the IMF.

H. Köhler

Horst Köhler
Managing Director
International Monetary Fund

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Preface

The *Monetary and Financial Statistics Manual* is the latest in a series of international guidelines on statistical methodology that have been issued by the International Monetary Fund. The purpose of the *Manual*, which is intended to be a reference volume, is to offer guidelines for the presentation of monetary and financial statistics. It provides a set of tools for identifying, classifying, and recording stocks and flows of financial assets and liabilities, describes standard, analytically oriented frameworks in which the statistics may be presented, and identifies a set of analytically useful aggregates within those frameworks. The concepts and principles set out in the *Manual* are harmonized with those of the *System of National Accounts 1993*.

The *Manual* is designed primarily to be useful to compilers of monetary and financial statistics, both experienced and aspiring, who are developing or updating their national statistics. It may also be useful to compilers, as well as users, of other macroeconomic statistics in understanding the relations between the various sets of statistics. As a set of guidelines for presenting monetary and financial statistics, the *Manual* does not describe how the statistics are to be compiled—that is, sources and methods for compiling statistics—or give practical guidance on questions such as the frequency with which they are to be published. Detailed practical guidance based on the *Manual* will be provided by the Fund in its technical assistance and training work with member countries.

The various drafts of the *Manual* have benefited from comments by member countries and, in particular, by participants in meetings of regional and national experts held at the IMF in November 1996 and February 2000. The IMF benefited considerably from the contributions and comments of the experts who participated in these two meetings, which formed the basis for the redrafting and finalization of the *Manual*, the first volume of its kind in this field of statistics. The IMF staff wishes to acknowledge, with thanks, the contributions of the following experts who participated in the meetings.

Australia	Mr. Bob McColl
Belgium	Mr. Rudi Acx
Brazil	Mr. Bruno Mauricio Ribeiro
Canada	Mr. Jean-Pierre Aubry
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BCEAO	Mr. Seth Aboh
CEMLA	Mr. Roberto Ibarra
ECB	Mr. Patrick Sandars

In addition to this English language version, the Manual will also be published in Arabic, Chinese, French, Russian, and Spanish.

Carol S. Carson

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I. Introduction to the Manual

1. The purpose of the *Monetary and Financial Statistics Manual (MFSM*, or manual*)* is to offer guidelines for the presentation of monetary and financial statistics. In addition to their role in assisting in monetary policy formulation and monitoring, the statistics covered in this volume form a basis for the development of a statistical framework for assessing financial sector stability.

2. The *MFSM* first provides a set of tools for identifying, classifying, and recording stocks and flows of financial assets and liabilities. It then describes standard, analytically oriented frameworks in which the statistics may be presented and identifies a set of analytically useful aggregates within those frameworks. The International Monetary Fund (IMF, or the Fund) has designed the *MFSM* primarily to be useful to compilers of monetary and financial statistics, both experienced and aspiring, who are developing or updating their national statistics. It may also be useful to compilers, as well as users, of other macrostatistics in understanding the relationships among the various sets of macrostatistics.

3. The guidelines contained in the *MFSM* provide a conceptual framework for presenting monetary and financial statistics. For most, if not all, countries the implementation of the conceptual framework will require a long-term and flexible approach, and countries will have to set their own priorities for implementation. Because its focus is on concepts, the *MFSM* is not intended to be a compilation guide, and it therefore does not describe how the statistics are to be compiled—that is, it does not give sources or methods for compiling statistics—or give practical guidance on questions such as the frequency with which they are to be published. The Fund will provide detailed practical guidance based on the *MFSM* in its technical assistance and training work with member countries and in time might formalize this guidance in a companion publication. The *MFSM* also does not demonstrate how to use the statistics. Different countries use monetary and financial statistics in many different ways in varied settings, and case studies of uses also are left to course materials and other publications.

4. This is the first volume of its kind in the field of monetary and financial statistics. An earlier document, *A Guide to Money and Banking Statistics in International Financial Statistics* (IMF, December 1984), was not meant to provide guidelines for compiling and presenting statistics—rather, its purpose was to explain to users of *International Financial Statistics (IFS)* the methodology followed in producing money and banking data included in that publication. This new volume will take its place alongside the Fund's other manuals—the *Balance of Payments Manual* and the *Government Finance Statistics Manual* (forthcoming). This manual focuses on stocks and flows for the financial corporations sector, just as the *Balance of Payments Manual* focuses on stocks and flows with the rest of the world, and the *Government Finance Statistics Manual* focuses on stocks and flows for the general government sector.

5. Like these other manuals, the *MFSM* is harmonized with the *System of National Accounts 1993 (1993 SNA)*. The *1993 SNA*—which was prepared as the joint responsibility of the Fund, the Commission of the European Communities, the Organization for Economic Co-operation and Development, the United Nations, and the World Bank—provides an overarching set of tools for identifying, classifying, and recording stocks and flows related to production and to the distribution, redistribution, and use of income. Consistency in the application of these tools promotes comparability across the major sets of macrostatistics within a country and across countries. This comparability, in turn, promotes efficiency in data preparation, improves the

analytical power of the various sets of macrostatistics, and provides understanding of statistics within and among countries.

6. Because the *MFSM* focuses on stocks and flows for the financial corporations sector, it may, for the most part, be seen as extending and elaborating on the *1993 SNA* in this area; the *MFSM* will note any deviations from the *1993 SNA*. Because the *MFSM* is part of a family of guidelines, the Fund encourages users to adhere to the guidelines in the interest of good practice and comparability. However, national differences and changes in financial markets—which in recent years have been rapid—necessitate that the guidelines must be interpreted flexibly. Moreover, the ongoing processes of financial innovation and globalization of financial markets mean that the Fund will need to update the guidelines periodically. In this respect, there are three areas of relevance to this volume where a consensus has yet to be reached on appropriate international guidelines. These areas relate to the treatment in macrostatistics of (1) accrued interest on traded securities, (2) repurchase agreements and securities lending, and (3) gold swaps and gold loans. Rather than being prescriptive, the *MFSM* simply summarizes the present thinking in each of these areas and will be updated after there is agreement on international guidelines.

7. The structure of the remainder of this volume is as follows:

- Chapter 2 presents an overview, emphasizing the conceptual integrity of the presentation of monetary statistics and, more broadly, financial statistics.

- Chapters 3 through 5 present the tools: the definition of institutional units and their grouping into sectors, the classification of financial assets, the derivation of stocks and flows, and the accounting rules to be followed.

- Chapter 6 provides a lead-in to the framework presented in Chapter 7. It discusses the general characteristics of monetary aggregates and the treatment of specific assets within those aggregates, as well as credit and debt aggregates.

- Chapter 7 presents the framework for monetary statistics, based on surveys for subsectors of the financial corporations sector that draw on standardized sectoral balance sheets.

- Chapter 8 broadens the manual's scope beyond the more traditional monetary statistics to include the full range of financial statistics, with particular emphasis on flow of funds accounts.

8. The *MFSM* also contains three appendices, the topics of which are as follows:

(1) The treatment of accounts with the IMF.
(2) Islamic banking.
(3) Illustrative sectoral balance sheets for financial corporations subsectors.

II. Overview

INTRODUCTION

9. *Monetary statistics* consist of a comprehensive set of stock and flow data on the financial and nonfinancial assets and liabilities of an economy's financial corporations sector. The organization and presentation of monetary statistics, as recommended in this manual, follow a hierarchical approach based on two general data frameworks—sectoral balance sheets and surveys.

- The first and most basic framework is the *sectoral balance sheet*, which contains the highly disaggregated stock and flow data for all categories of assets and liabilities of an individual subsector within the financial corporations sector.

- The second framework is the *survey,* in which the data from the sectoral balance sheets of one or more of the financial corporations subsectors are combined into more aggregated asset and liability categories that are particularly useful for analytical purposes.

10. The surveys (described in Chapter 7 of this manual) comprise the following:

- Three surveys that cover the individual financial corporations subsectors—the *Central Bank Survey (CBS)*, the *Other Depository Corporations Survey (ODCS)*, and the *Other Financial Corporations Survey (OFCS)*.

- The *Depository Corporations Survey (DCS)*, which consolidates the *CBS* and the *ODCS*.

- A survey that contains consolidated data for the entire sector—the *Financial Corporations Survey (FCS)*, which consolidates the *DCS* and the *OFCS*.

11. *Financial statistics* consist of a comprehensive set of stock and flow data on the financial assets and liabilities of all sectors of an economy. The financial statistics are organized and presented in formats designed to show financial flows among the sectors of an economy and corresponding financial asset and liability positions.

12. *Flow of funds data*, presented in a matrix form showing the financial transactions among all subsectors of an economy, are a particular focus of the financial statistics described in Chapter 8 of this manual.

SCOPE AND USES OF THE STATISTICS

13. The statistics described in this manual cover all financial assets and liabilities of all institutional units within an economy, with a particular focus on the financial corporations sector. (Sectorization is described in Chapter 3.) Most financial assets are creditor claims that give rise to corresponding obligations, or liabilities, of debtors. A financial claim is an asset that entitles the creditor to receive a payment, or series of payments, from the debtor in the circumstances specified in the contract between them. Monetary gold and SDRs are considered financial assets even though their holders do not have claims on other units.

14. Other financial instruments of a contingent nature, such as loan guarantees, are not financial assets and therefore are not included in the monetary and financial statistics. (Chapter 4 contains a description of financial assets and other financial instruments.)

15. This manual and the *1993 SNA* contain principles and concepts for the measurement of financial flows and stocks. (Chapter 5 describes flows and stocks.) In particular, each financial flow is defined as the sum of one or more of the following:

- A transaction.
- A change in the value of a financial asset/liability.
- Other changes in the volume of an asset/liability.

In compiling monetary and financial statistics, these categories are used to account for all period-to-period changes in outstanding amounts (i.e., stocks) of financial assets and liabilities on the balance sheets of financial corporations.

16. Monetary and financial statistics are a prominent and somewhat special part of the macroeconomic statistical system of a country. Compared to many other types of macrostatistics (in particular, national accounts, balance of payments, and government finance statistics), most countries compile and disseminate monetary statistics on a more timely and more frequent basis, as dictated by law and regulation in many countries and by the needs of policymakers and market participants in all countries. Most countries compile monetary statistics on a monthly basis and disseminate them within a relatively short span of time.

17. For monetary policy purposes, the focus is on the data for the depository corporations sector, presented in the *CBS*, the *ODCS*, and the *DCS*. The *CBS* contains data on all components of the monetary base, which comprises the central bank liabilities underlying the monetary aggregates of the economy. The *DCS* contains data on all depository corporation liabilities included in the national definition of broad money. (Chapter 6 discusses monetary aggregates, the monetary base, and credit aggregates.)

18. The balance sheet identity in the *DCS* provides a direct link between the broad money supply and depository corporations' claims on nonresidents and the resident sectors of the economy. These data are important for the formulation and implementation of monetary policy and for broader types of macroeconomic policy.

19. The *FCS* is the broadest set of monetary statistics in terms of institutional coverage. This survey contains consolidated data for all institutional units within the financial corporations sector. The data in the *FCS* are particularly useful for analyzing the financial corporations sector's claims on (i.e., credit to) the other sectors of the economy and nonresidents.

20. The financial statistics provide data for use in compiling the financial account of the *1993 SNA*. It is possible to realize resource savings by treating the compilation of the financial statistics and the financial account of the *1993 SNA* as a single process or, at least, a highly cooperative effort of the compilers of the monetary and the national accounts statistics. However, the financial account of the *1993 SNA* also includes a large set of data from outside the financial corporations sector.

21. This manual contains descriptions of the flow of funds—a matrix showing the intersectoral financial transactions for an economy—and corresponding stock data on financial claims and liabilities among sectors. The focus is on those columns of the flow of funds matrix that pertain to financial corporations subsectors' claims on and liabilities to

- each other financial corporations subsector
- the nonfinancial sectors of the economy, and
- nonresidents.

For the financial corporations subsectors, the data for these rows and columns derive directly from the sectoral balance sheets, as described in Chapter 7. Data for the matrix entries that do not pertain to claims on or liabilities to the financial corporations sector are obtained from other sets of macrostatistics, including national accounts.

22. Data on the market prices of financial assets and on market exchange rates are necessary for the implementation of this manual's recommendations on the valuation of financial assets and liabilities. (The next section of this chapter summarizes valuation principles.) However, monetary and financial statistics, as defined in this manual, do not cover the compilation and presentation of macroeconomic data on interest rates, security prices, share prices, or exchange rates. Countries use a variety of reporting formats, sample designs, interest compounding formulas, averaging methods, and data presentations for indices and other data series on interest rates, security prices and yields, share prices, and exchange rates. This manual does not provide guidelines beyond the general recommendation that such data should reflect market prices and effective (rather than nominal) interest rates and should be representative of the financial assets and markets to be covered.

RELATIONSHIP TO THE *1993 SNA*

23. Because of the integral links between the monetary and financial statistics and the financial account of the *1993 SNA*, there is an almost complete concordance between this manual and the *1993 SNA* with respect to principles and concepts. In particular, these two sets of international guidelines are consistent on such issues as the delineation of resident and nonresident entities, sectorization of the economy, classification of the various categories of financial assets and liabilities, time of recording of transactions and other flows, financial asset and liability valuation, and data aggregation and consolidation[1]

24. Because of its broader scope, the *1993 SNA* contains many principles and concepts not directly relevant to this manual. This manual contains a few concepts not found in the *1993 SNA*, as well as more detailed treatment of some concepts contained therein. The most important difference pertains to issues concerning the definition of monetary aggregates. The *1993 SNA* does not deal with these issues, whereas issues related to the definitions of monetary aggregates are fundamental to monetary statistics; Chapters 6 and 7 of this manual cover these issues in some depth. The other differences between the *1993 SNA* and this manual are described in the context of the principles and concepts covered in the remainder of this chapter.

PRINCIPLES AND CONCEPTS

25. This section deals with the set of principles and concepts underlying the monetary and financial statistics recommended in this manual. Adherence to these principles and concepts, and to the resulting systematic recording and presentation of data, promotes internal consistency between debtor and creditor records, ensures consistency with other major sets of macrostatistics, and facilitates cross-country comparisons. Subsequent chapters of this manual will thoroughly cover more detailed aspects of these principles and concepts.

ECONOMIC TERRITORY, RESIDENCE, AND CENTER OF ECONOMIC INTEREST

26. The delineation between resident and nonresident entities is a key feature of all macrostatistical systems, including the monetary and financial statistics described in this manual. The separate identification of stocks and flows associated with claims on and liabilities to nonresidents is necessary for the measurement of a country's international reserves and its external debt. Likewise, since monetary aggregates usually include only liabilities to residents, the distinction between residents and nonresidents is crucial.

[1]The principles and concepts in this manual also accord with those in the fifth edition of the *Balance of Payments Manual* (1993) and the forthcoming IMF manual on government finance statistics, which are designed to have consistency with the *1993 SNA*. Recent revisions in the *1993 SNA* and the *Balance of Payments Manual*—in particular, those dealing with the statistical treatment of financial derivatives—have been incorporated into the principles and concepts of this manual.

27. This manual bases its definition of residence, as discussed further in Chapter 3, on the concepts of economic territory and center of economic interest rather than on nationality or legal criteria. This manual uses concepts identical to those in the *1993 SNA* and the fifth edition of the *Balance of Payments Manual (BPM5).*

28. Economic territory may not be identical with boundaries recognized for political purposes. A country's economic territory consists of a geographic territory administered by a government; within this geographic territory, persons, goods, and capital circulate freely.

29. An institutional unit has a center of economic interest and is a resident of a country when, from some location (dwelling, place of production, or other premises) within the economic territory of the country, the unit engages and intends to continue engaging (indefinitely or for a finite period) in economic activities and transactions on a significant scale. Entities that do not satisfy the above requirements are referred to as nonresidents.[2]

SECTORIZATION

30. In defining monetary and credit aggregates (described in Chapter 7), it is necessary to identify the money (credit) issuing and holding sectors. Sectorization is also crucial to constructing the financial statistics (described in Chapter 8) and, in particular, the flow of funds which deal with intersectoral financial stocks and flows.

31. Institutional units differ with respect to their economic objectives, functions, and behavior and are grouped into sectors that include units with similar characteristics. The resident units of the economy are grouped into the following mutually exclusive institutional sectors:

- Financial corporations.
- General government.
- Nonfinancial corporations.
- Households.
- Nonprofit institutions serving households.

Chapter 3 contains a description of these sectors.

32. The financial corporations sector contains five subsectors (1) the central bank, (2) other depository corporations, (3) other financial intermediaries, except insurance corporations and pension funds, (4) insurance corporations and pension funds and (5) financial auxiliaries. For the monetary and financial statistics, this manual combines categories (3) through (5) into a single subsector called the *other financial corporations* subsector. This consolidation of all financial corporations subsectors except the central bank and other depository corporations subsectors does not appear in the *1993 SNA*.[3]

33. The general government sector is divided into central government and state and local government.

34. The nonfinancial corporations sector contains three subsectors (1) public nonfinancial corporations, (2) national private nonfinancial corporations, and (3) foreign controlled nonfinancial corporations. For monetary and financial statistics, this manual divides the nonfinancial corporations sector into only two subsectors—*public nonfinancial corporations* and *other nonfinancial corporations*. Thus, unlike the *1993 SNA*, this manual does not divide nonfinancial corporations into separate subsectors based on the residency of the units that own and control them.

35. The *1993 SNA* makes extensive use of separate data categories for the household and nonprofit institutions serving households (NPISH) sectors but, in some instances, combines these sectors into a single sector referred to as *other resident sectors*. *Other resident sectors* is

[2]The *1993 SNA* uses "rest of the world" to refer collectively to nonresidents. In this manual, nonresidents refers to all entities, or groupings of entities, that are not residents of an economy.

[3]The *1993 SNA* also contains two separate subcategories of other depository corporations, namely, deposit money corporations (which accept transferable deposits) and "other" (which do not accept transferable deposits). These subcategories are not used in the construction of the monetary and financial statistics as presented in this manual. Supplementary data for these subcategories may be of analytical usefulness in the context of the monetary and financial statistics in some countries.

the most basic level of sectorization for the monetary statistics presented in Chapter 7 and for the detailed flow of funds presented in Chapter 8. Separate data can be presented for the household and the NPISH sectors if needed in the national context.

Classification

36. The assets and liabilities of the financial corporations sector are classified in the following broad categories:

- Monetary gold and SDRs.
- Currency and deposits.
- Securities other than shares.
- Loans.
- Shares and other equity.
- Insurance technical reserves.
- Financial derivatives.
- Other accounts receivable/payable.
- Nonfinancial assets.

The secondary level of classification disaggregates currency and deposits into separate categories for currency, transferable deposits, and other deposits; it also disaggregates insurance technical reserves and other accounts payable.[4] (Chapter 4 describes these classifications.)

37. Shares and other equity on the liability side of the balance sheets of financial corporations are disaggregated into the following categories (1) funds contributed by owners; (2) retained earnings; (3) general and special reserves; (4) SDR allocations (applicable to the central bank); and (5) valuation adjustments. Data for these categories are necessary for a detailed analysis of the shares and other equity of financial corporations in the context of the monetary statistics. These separate categories within shares and other equity do not appear in the *1993 SNA* or in the financial statistics in Chapter 8 of this manual.

[4] Currency and deposits are further disaggregated by national/foreign currency of denomination. Insurance technical reserves are classified as (1) net equity of households in life insurance reserves and in pension funds and (2) prepayments of premiums and reserves against outstanding claims. Other accounts receivable/payable are classified as (1) trade credit and advances and (2) other.

Valuation

38. This manual uses market price as the primary concept of valuation of transactions, other financial flows, and stocks (i.e., balance sheet amounts). It recognizes that market price quotations are not available for financial assets not traded in secondary markets or traded on an infrequent basis. Therefore, it is necessary to estimate market-equivalent values for such financial assets. This manual refers to estimates of market-equivalent values as fair values. (Chapter 5 describes the valuation principles, which, with the exception noted below, are the same as those in the *1993 SNA*.)

39. For the financial statistics (described in Chapter 8), this manual recommends that shares and other equity on both sides of the balance sheet be valued at market prices, in concordance with the valuation principles in the *1993 SNA*. For the monetary statistics (described in Chapter 7), it is recommended that, while shares and other equity on the asset side of the balance sheet be valued at market prices, some components of shares and other equity on the liability side be valued at historical, or book, values. These valuation procedures are not applicable in the *1993 SNA*, because that system does not disaggregate shares and other equity. This manual also recommends that supplementary data on the market values of such shares and other equity be collected as memorandum items in the sectoral balance sheets.

40. The valuation of loans is an exception to the valuation principle based on market price or fair value. In particular, loan values should be based on creditors' outstanding claims without adjustment for expected loan losses.

41. The standard unit of account for the monetary and financial statistics is the national currency unit. Foreign-currency-denominated assets and liabilities must be converted to national currency units in the presentation of the monetary and financial statistics. In concordance with the principles of valuation and time of recording in this manual and the *1993 SNA*, the appropriate

exchange rate to be used for conversion from a transaction currency into the national currency is the market exchange rate prevailing on the transaction date. For conversion of stocks of foreign-currency-denominated assets and liabilities, the market exchange rate prevailing on the balance sheet date should be used. The midpoint between the buying and selling rates should be used in converting both flow and stock data.

Time of Recording

42. This manual (like the *1993 SNA*) recommends recording transactions on an accrual, rather than cash, basis. Thus, the recording should coincide with the change in ownership of the asset rather than with the time of payment. (Chapter 5 describes these principles.)

Aggregation, Consolidation, and Netting

43. Aggregation refers to the summing of stock and flow data across all institutional units within a sector or subsector, or of all assets or liabilities within a particular category. This manual recommends reporting and organizing of the underlying data for the monetary and financial statistics on an aggregated basis.

44. Consolidation refers to the elimination of stocks and flows that occur between institutional units that are grouped together. For analytical purposes, the reported data are consolidated to obtain the surveys of the financial corporations sector and its subsectors, as presented in Chapter 7. (Chapter 5 describes aggregation and consolidation of the data.)

45. Individual units or sectors may have the same kind of transaction both as a use and as a resource (e.g., they both pay and receive interest) and the same kind of financial instrument as an asset and as a liability. Combinations in which all elementary items are shown at their full values are called *gross recordings*. Combinations whereby the values of some elementary items are offset against items on the other side of the account or that have the opposite sign are called *net recordings*. It is the general principle in this manual and in the *1993 SNA* that data should be recorded and compiled on a gross basis. However, in some circumstances, the presentation of data on a net basis is appropriate or the netting of data is necessitated by the unavailability of data on a gross basis. (Chapter 5 describes netting of data.)

III. Institutional Units and Sectors

INTRODUCTION

46. Chapter 3 is concerned with the defmition of institutional units and their grouping into sectors. The sectorization of transactors—first to distinguish between residents and nonresidents and then to delineate the various resident sectors and subsectors—is basic to all macrostatistical systems. This manual follows the sectorization principles of the *1993 SNA* which, in turn, follow the recommendations of the *BPM5* with respect to the definition of nonresidents.

47. An institutional unit is classified as a resident unit if it has a center of economic interest in the economic territory of the country in question. The next section of this chapter describes the residency criteria.

48. In sectorizing the domestic economy, this manual uses the concept of an *institutional unit* as defined in the *1993 SNA*. An institutional unit is an economic entity that is capable of owning assets, incurring liabilities, and engaging in the full range of economic transactions. Examples are households, corporations, government units that have their own budgetary responsibility, and nonprofit institutions. The third section of this chapter covers the definition and characteristics of institutional units.

49. The concluding section of this chapter describes how institutional units are grouped into sectors based on their economic objectives, functions, and behavior. Although the section emphasizes the financial corporations sector and its subsectors, it also describes the principles for allocating institutional units to other domestic sectors. This sectorization is key to the analytical aggregates on credit and broad money that form the basis of the surveys of the financial corporations sector, described in Chapter 7, and the financial statistics described in Chapter 8.

RESIDENCY

50. The delineation between resident institutional units and nonresident units is a key feature of the monetary and financial statistics recommended in this manual. The concept and coverage of residence in this manual are identical to those in the *1993 SNA* and in the *BPM5*.

51. The concept of residence in this manual is not based on nationality or legal criteria. Moreover, the boundaries of a country that may be recognized for political purposes may not always be appropriate for economic purposes, and it is necessary to introduce the concept of the *economic territory* of a country as the relevant geographical area to which to apply the concept of residency. An institutional unit is then said to be a resident unit when it has a *center of economic interest* in the economic territory of the country in question. The following explains *economic territory* and *center of economic interest.*

Economic Territory

52. *A country's economic territory consists of the geographic territory administered by a government within which persons, goods, and capital circulate freely.* The economic borders of a country are not always based strictly on physical or political borders, although there is usually a close correspondence. A country's economic territory includes the following:

- Airspace, territorial waters, and any continental shelf lying in international waters over which the country enjoys exclusive rights or over which it has, or claims to have, jurisdiction with respect to the right to exploit natural resources such as fish, minerals, or fuels.

- Clearly demarcated territorial enclaves that are located in the rest of the world and are established by formal agreements with the governments of the countries in which the enclaves are physically located. Such enclaves are used for military, diplomatic, or other special purposes.

- Free trade zones, entrepots, bonded warehouses or factories that are physically located within a country's boundaries. These are considered to be under the control and supervision of the country in which the warehouses, and so on, are located, even though foreign entities may operate the zones or customs formalities may exist for goods and persons moving between the zones and the rest of the national economy.

53. The economic territory of an international organization consists of clearly demarcated enclaves or structures owned or rented by the organization. The country in which the enclaves are physically located formally recognizes them and excludes them from the definition of that country's economic territory. Thus, enclaves of international organizations will always be resident in the rest of the world. Employees of international organizations are residents of the local economies in which they live and not of the enclaves in which they work. An enterprise owned by two or more governments is not an international organization and is considered a resident of the country in which it operates.

CENTER OF ECONOMIC INTEREST

54. *An institutional unit is said to have a center of economic interest within a country when there exists some location—dwelling, place of production, or other premises—within the economic territory of the country on, or from, which it engages, and intends to continue to engage, in a significant amount of economic activity.*[5] The location need not be fixed so long as it remains within the economic territory.

55. In most cases, it is reasonable to assume that an institutional unit has a center of economic interest in a country if it has already engaged in economic activities and transactions on a significant scale in the country for one year or more, or it intends to do so. Engaging in economic activities and transactions over a period of one year normally implies a center of interest, but the choice of a specific period of time is somewhat arbitrary, and one year is suggested only as a guideline and not as an inflexible rule.

56. The ownership of land and structures within the economic territory of a country is not deemed to be sufficient in itself for the owner to have a center of economic interest in that country. Land and buildings can obviously only be used for purposes of production in the country in which they are located, and their owners, in their capacity as owners, are subject to the laws and regulations of that country. It may happen, however, that an owner is resident in another country and does not have any economic interest in the country in which he owns the land or buildings other than the land or buildings themselves. In that case, the owner is treated as if he transferred his ownership to a notional institutional unit that is actually resident in the country. The notional unit is treated as being entirely owned and controlled by the nonresident actual owner, in much the same way as a quasi-corporation is owned and controlled by its owner. In this way, the rents and rentals paid by the tenants of the land or buildings are deemed to be paid to the notional resident unit, which in turn makes a transfer of property income to the actual nonresident owner.

[5] "Significant amount" means that the enterprise maintains at least one production establishment in the country and plans to operate that establishment indefinitely or over a long period of time (i.e., one year or more).

57. Corporations or quasi-corporations have a center of economic interest and are residents of a country when they intend to engage in significant amounts of production of goods or services or own land and structures (including at least one production establishment) there for an indefinite or long period of time. Additional criteria for establishing an enterprise's center of economic interest consist of maintenance of a set of accounts covering local productive activities, proof of income taxes paid to the local government, or the existence of a substantial physical presence. On the basis of these criteria, many site offices of major construction projects are residents in the economies in which the site offices are located. However, if an enterprise performs—in a foreign country—productive activities that fail to meet these criteria, the result of these activities is considered to be an export of a good or service from the enterprise's home economy to the foreign economy and, therefore, to involve international transactions in goods and services. These principles apply to financial as well as other activities.

58. Offshore units engaged in manufacturing (including assembly of components manufactured elsewhere) are residents of the economies in which the offshore enterprises are located. This treatment applies even if the units are located in special zones of exemption from customs duties or regulations, or concessions. It also applies to offshore units engaged in trade and financial operations.

59. A household is resident in the country in which its members maintain regular residence. The location in which the members work is not a criterion for determining residency. Individual household members who cross international borders to work remain residents of their original countries unless they engage in substantial and sustained economic activity abroad (according to the one-year rule); earn income, consume, and maintain regular residence abroad; and return only briefly or infrequently to the original households.

60. The situation differs for military personnel and civil servants (including diplomats) employed abroad in government enclaves such as military bases and embassies. These enclaves form part of the economic territory of the employing government, and the government employees continue to have centers of economic interest in their home countries while, and however long, they work in the enclaves. They continue to be residents of their home countries even if they live in dwellings outside the enclaves.

61. The situation also differs for students and medical patients abroad. However long they study abroad, students should be treated as residents of their countries of origin, as long as they remain members of households in their home countries. Similarly, medical patients are treated as residents of their countries of origin, as long as they remain members of households in their countries of origin.

INSTITUTIONAL UNITS

Definition

62. *An institutional unit is an economic entity capable, in its own right, of owning assets, incurring liabilities, and engaging in economic activities and in transactions with other entities.* The *1993 SNA* lists the following four main attributes of institutional units:

- An institutional unit is entitled to own goods or assets in its own right; it is therefore able to exchange ownership of goods and assets through transactions with other institutional units.

- It is able to make economic decisions and engage in economic activities for which it is held responsible and accountable by law.

- It is able to incur liabilities on its own behalf, to take on other obligations or future commitments, and to enter into contracts.

- Either a complete set of accounts, including a balance sheet, exists for the unit, or it would be possible and meaningful, from both an economic and legal viewpoint, to compile a complete set of accounts if they were to be required.

63. There are two main types of institutional units:

- *Households* consisting of individuals, families, or other groups of persons who share the same living accommodation, pool some or all of their income and wealth, and consume some goods and services collectively. Households may engage in economic production.

- *Legal or social entities* engaged in their own right in economic activities and recognized legally or by society as existing independently of the units that own or control them.

HOUSEHOLDS

64. *A household may consist of an individual or more than one person.* Assets may be held and liabilities incurred on behalf of an entire household, and the income of individuals may be pooled for the benefit of all household members. Many expenditure decisions, particularly with respect to consumption and housing, may also be made collectively for the benefit of an entire household. Therefore, it generally is only meaningful to compile transaction accounts or balance sheets for the entire household unit, and not for individuals belonging to the same household. The production activities undertaken by those households that produce and sell goods and services are treated as integral parts of the households themselves and not as separate entities—unless legal entities are created or the size of operations warrants treatment as quasi-corporations.

LEGAL OR SOCIAL ENTITIES

65. *Legal or social entities include corporations, quasi-corporations, government units, and nonprofit institutions.*

Corporations

66. *A corporation is a legal entity created for the purpose of producing goods or services for the market.* A corporation may be a source of profit or other financial gain to its owners. It is collectively owned by shareholders who have authority to appoint directors responsible for the corporation's general management. Most corporations can be identified by the following general characteristics:

- The law considers a corporation to have permanence and an existence independent of the units that hold its equity. A corporation is an institutional unit separate from its owner.

- A corporation is legally responsible and liable for its actions. The owners often have limited liability.

- A corporation engages in market activity and creates an operating surplus that may be distributed to its owners. The market value of owners' equity claims on a corporation may fluctuate and result in holding gains or losses for the owners.

- A corporation may retain part of its earnings for use as working capital and for other corporate purposes.

67. Corporations frequently own shares of, and can exercise full or partial control over, other corporations. Control is always deemed to exist when a corporation owns more than half of the voting rights or can appoint more than half of the directors of another corporation. In these

circumstances, the controlled corporation is a subsidiary. Effective control may also be exercised with less than 50 percent ownership, depending on the corporation's structure and the diffusion of ownership. As it can be difficult to identify effective control by a minority of voting rights, the use of majority share ownership as a practical guideline is recommended. Exceptions are permitted on the basis of additional evidence. (See paragraph 4.30 of the *1993 SNA*.)

68. Groups of corporations (*conglomerates*) may develop through a chain of effective control. Control is transitive. If Corporation *A* controls Corporation *B*, and *B* controls Corporation *C*, then *A* controls *C*. Control is also additive. If *A* controls *C*, if *A* and *C* each have minority ownership interests in Corporation *D*, and if the ownership shares of *A* and *C* sum to a controlling interest in *D*, then *D* is effectively a subsidiary of *A*.

69. Conglomerates owning subsidiaries or branches in several countries are called multinational or transnational corporations. Each corporation within a conglomerate should be treated as a separate unit, because each has a balance sheet and retains legal responsibility for corporate actions. This treatment permits a more precise classification and minimizes problems caused by mergers and other changes in the structure and composition of conglomerates. It is also recommended that financial subsidiaries be separated from nonfinancial subsidiaries whenever possible because of the inherent differences between financial and nonfinancial activities.

70. *Holding corporations are corporations that control groups of subsidiary corporations and whose principal activities are owning and directing the groups.* They are deemed to be units separate from the subsidiary corporations if they maintain separate and complete sets of accounts. A holding corporation is classified as financial if the preponderant type of activity of the group of corporations as a whole is financial. In the absence of information on the relative sizes of the corporations in the group, a holding company should be classified as financial if a simple majority of the corporations it controls are financial. Similarly, financial holding corporations should be allocated to subsectors according to the type of financial activity mainly carried out by the groups they control.[6]

71. *An ancillary corporation is a subsidiary wholly owned by a parent corporation, whose productive activities are ancillary in nature—that is, activities strictly confined to providing services to the parent corporation, or other ancillary corporations owned by the same parent corporation.* Examples are transportation, sales and marketing, computing, maintenance, and cleaning. Domestic ancillaries are treated as integral parts of the parent corporation, rather than as separate institutional units. An ancillary corporation that has its center of economic interest in a foreign country is treated as a separate, nonresident unit.

72. Various trusts, special purpose vehicles, and other arrangements are treated in the same way as ancillary corporations if these entities merely hold financial assets or liabilities for parent corporations and do not act as financial intermediaries or provide other market-oriented services to units outside the parent corporation. Similarly, financial offices that passively serve as conduits for financial flows are considered ancillary to other functions of the parent corporation and should be treated as part of the parent. In contrast, financial subsidiaries that are owned by corporations and that transact with the public or other units are not ancillaries; these are classified as financial corporations.

[6]A holding company is classified as resident or nonresident on the basis of the center of economic interest from which it controls the corporations in the group.

Quasi-Corporations

73. *Quasi-corporations are unincorporated enterprises that function as corporations.* For a quasi-corporation to exist, it must be possible to develop a full set of accounts, including balance sheets, to distinguish the quasi-corporation from its owners. The business-related assets and liabilities of the quasi-corporation must be separate from the personal assets and liabilities of owners. Moreover, it must be possible to identify flows of capital and income occurring between the quasi-corporation and the owners. A quasi-corporation is treated as an institutional unit that is separate from the unit that legally controls the quasi-corporation. Quasi-corporations include the following:

- Unincorporated government enterprises engaged in market production and operating as private corporations.

- Unincorporated units operated by households, engaged in market production, and operating as private corporations.

- Resident unincorporated operations owned entirely or partly by nonresident units (including joint ventures, branches, offices, agencies, and ancillaries) that engage in significant activity within the country over long or indefinite periods.

Government Units

74. *Government units are unique types of legal entities that are established by political processes and have legislative, judicial, or executive authority over other institutional units within a specific area.* The principal functions of governmental units are

- to provide goods and services to the entire community or to households by engaging in nonmarket production or through transfers in kind and by financing their provision out of taxes or other incomes, and

- to redistribute income and wealth by means of transfers.

Government units, like households, may own unincorporated enterprises mainly engaged in the production of market goods and services. These enterprises should be treated as quasi-corporations if they are managed in a manner similar to a corporation and have a complete set of accounts that allow operating surpluses, saving, assets, and liabilities to be separately identified. Enterprises that do not meet these requirements are not treated as separate institutional units and remain part of the parent government unit.

Nonprofit Institutions

75. *Nonprofit institutions (NPIs) are legal or social entities, created for the purpose of producing goods and services, whose status does not permit them to be a source of income, profit, or other financial gain for the units that establish, control, or finance them.*

76. The motives leading other institutional units—whether persons, corporations, or government—to create NPIs are varied. For example, other institutional units may create NPIs

- to provide services for the benefit of the persons or corporations that control or finance them;

- to provide goods or services to other persons in need for charitable, philanthropic, or welfare reasons;

- to provide health or education services for a fee, but not for profit;

- to promote the interests of pressure groups in business or politics, and so forth.

Although they may provide services to groups of persons or institutional units, by convention they are deemed to produce only individual services and not collective services.

77. It is important to distinguish between NPIs engaged in market production and NPIs engaged in nonmarket production because this distinction is used in determining the sector of the economy to which an NPI belongs. The majority of NPIs in most countries are nonmarket producers that provide most of their output free or at prices that are not economically significant (i.e., at prices that do not significantly influence amounts supplied or amounts purchased). NPIs engaged mainly in nonmarket production fall into two main groups: those NPIs controlled and mainly financed by government, and those NPIs providing nonmarket goods and services to households and financed mainly by transfers from nongovernment sources—households, corporations, or nonresidents. The latter group are the NPISHs, which constitute a separate sector of the economy.

78. Nonmarket NPIs that are controlled and mainly financed by the government are classified in the general government sector. NPIs controlled by the government must be properly constituted legal entities that exist separately from government. Control by government means that government units have the ability to determine the general policy of the entity through appointment of officers. NPIs are considered to be mainly financed by government when government provides funds or in-kind contributions equivalent to 50 percent or more of their operating expenses. Such NPIs may be engaged in research and development, for example, for the benefit of producers such as farmers. They may also be concerned with the setting or maintenance of standards for health, safety, the environment, accounting, finance, education, etc. These NPIs are allocated to the general government sector, regardless of the types of institutional units that mainly benefit from their activities. Certain legal entities created by government units may be formally designated as *corporations*, even though they have the characteristics of NPIs controlled and mainly financed by government. Such entities should be treated as NPIs whatever their names.

79. NPIs engaged in market production are classified as corporations. Those predominantly engaged in the production of financial services (such as credit unions operated by members) are classified as financial corporations. Some of these NPIs are schools, colleges, universities, clinics, hospitals, and other units that charge fees for their services that are based on production costs. Because of their status as "nonprofit institutions," these units may also be able to raise additional funds by soliciting donations from persons, corporations, or government. Other market NPIs serve businesses and are usually created by associations of the businesses whose interests they are designed to promote. They include chambers of commerce, agricultural, manufacturing, or trade associations, employers' organizations, research and testing laboratories, or other organizations or institutes engaged in activities that are of mutual interest or benefit to the group of businesses that control and finance them. When chambers of commerce or similar organizations established for the benefit of businesses are controlled and financed by government units, they are classified as nonmarket NPIs in the general government sector.

CLASSIFICATION OF INSTITUTIONAL UNITS INTO SECTORS

80. Sectorization of domestic institutional units is a key element in the compilation and presentation of monetary and financial statistics. In the monetary statistics described in Chapter 7, it is necessary to delineate the financial corporations sector and its subsectors, to identify money-holding sectors, and to identify financial corporations' claims on each of the other resident sectors. Sectorization is also key to constructing the financial statistics described in Chapter 8 and, in particular, the flow of funds, which deals with intersectoral financial stocks and flows.

81. The sectorization recommended in this manual, shown in Box 3.1, is consistent with the *1993 SNA,* which groups similar kinds of institutional units. Corporations, government units, households, and nonprofit institutions serving households differ with respect to their economic objectives, functions, and behavior. The economic behavior of units in the corporations sector is clearly different from that of units in the general government sector. Corporations are created for the purpose of producing goods and services for the market, whereas government units provide nonmarket goods and services to the community or to individual households and redistribute income and wealth. Corporations are distinguished from households, which also may engage in production for the market, because households are motivated by different economic objectives, including final consumption. Financial corporations are distinguished from nonfinancial corporations at the first level of sectoring, because facilitating the channeling of funds from lenders to borrowers by intermediating between them (financial intermediation) is inherently different from other types of productive activity.

THE FINANCIAL CORPORATIONS SECTOR

SCOPE

82. *The financial corporations sector consists of all resident corporations or quasi-corporations principally engaged in financial intermediation or in related auxiliary financial activities.* Financial intermediation may be defined as a productive activity in which an institutional unit raises funds by incurring liabilities on its own account for the purpose of channeling these funds to other institutional units by way of lending or otherwise acquiring financial assets. The provision of services that are auxiliary to financial intermediation may be carried out as secondary activities of financial intermediaries or may be provided by specialized agencies or brokers. There are other agencies whose principal function is to guarantee bills or similar instruments intended for discounting or refinancing by financial enterprises. These enterprises provide services that border very closely on financial intermediation but do not represent true intermediation because these agencies do not put themselves at risk by acquiring liabilities on their own account. The financial corporations sector also includes those nonprofit institutions that (1) are mainly engaged in the production of financial services (such as insurance), or (2) are financed by subscriptions from financial enterprises and have the objective of promoting or otherwise serving the interest of those enterprises.

83. Some corporations or quasi-corporations engage only to a limited extent in the production of financial services. For instance, certain manufacturers or retailers provide consumer credit directly to their customers. Such units are classified as belonging in their entirety to the nonfinancial corporations sector provided they engage mainly in the production of nonfinancial goods and services.

84. Individuals or households may engage in financial activities such as money lending or buying and selling foreign currency. Unincorporated financial enterprises of this kind are included in the financial sector only if they qualify as financial intermediaries or auxiliaries that are quasi-corporations. To qualify as quasi-corporations, they must have complete sets of accounts that are separable from the personal accounts of owners.

SUBSECTORS OF THE FINANCIAL CORPORATIONS SECTOR

85. Box 3.1 shows the subsectors of the financial corporations sector, namely, the central bank, other depository corporations, and other financial corporations. In this manual, *depository corporations* refers collectively to the central bank and other depository corporations.

Box 3.1. Main Sectors and Subsectors

Financial corporations
- Central bank
- Other depository corporations
- Other financial corporations
  - Insurance corporations and pension funds
  - Other financial intermediaries, except insurance corporations and pension funds
  - Financial auxiliaries

Nonfinancial corporations
- Public nonfinancial corporations
- Other nonfinancial corporations

General government
- Central government
- State government
- Local government
- Social security funds*

Households

Nonprofit institutions serving households

*Alternatively, social security funds can be allocated to the other subsectors of general government on the basis of the level at which they are organized.

Central Bank

86. *The central bank is the national financial institution (or institutions) that exercises control over key aspects of the financial system and carries out such activities as issuing currency, managing international reserves, transacting with the IMF, and providing credit to other depository corporations.* Central banks in some countries also accept deposits from nonfinancial corporations or provide credit to nonfinancial corporations. A few countries that rely on other depository corporations to handle currency and reserve operations do not have central banks. Typical central banking activities that are performed by general government and cannot be separated into specific institutional units are treated as part of general government and are not allocated to the central bank subsector.

87. The central bank subsector includes the following:

- Central banks, which in most countries are separately identifiable institutions that, across countries, are subject to varying degrees of government control, engage in differing sets of activities, and are designated by various names (e.g., central bank, reserve bank, national bank, or state bank).

- Currency boards or independent currency authorities that issue national currency that is fully backed by foreign exchange reserves.

- Government-affiliated agencies that are separate institutional units and primarily perform central bank activities.

88. If an institutional unit is mainly engaged in central banking activities, the entire unit is classified in the central bank subsector. Many central banks regulate or supervise other depository and other financial corporations, and central bank activities in these areas are also included in the central bank subsector. However, units that are affiliated with the government or with other sectors and are mainly engaged in regulating or supervising financial units are classified as financial auxiliaries rather than as units in the central bank subsector. Private units that perform activities such as check clearing operations are assigned to other financial corporations subsectors depending on their activities, rather than to the central bank subsector.

89. This manual recommends that the headquarters office of a *regional central bank* (RCB), which is a financial institution that acts as a common central bank for the member countries of a currency union, be classified as a separate nonresident unit holding its own assets and liabilities.

90. In one form of currency union, there is a national central bank in each member country, and it is therefore possible to compile accounts for the central bank subsector for each member country. In these accounts, the national central banks' claims on the RCB headquarters are treated as claims on nonresidents. In the other form of currency union, there are no national central banks, and all central banking functions are carried out by the RCB on behalf of the member countries. In a situation where there are no national central banks, the treatment recommended in the *1993 SNA* should be followed. Under this treatment, the headquarters office of the RCB is not classified as a separate institutional unit, and the stocks and flows for the assets and liabilities of the RCB headquarters are allocated to the individual member countries on the basis of each member's claims on and liabilities to the RCB.

91. This manual also recommends that the sectoral balance sheets and surveys, described in Chapter 7, for countries in a currency union make a two-way distinction in claims on and liabilities to nonresidents. This distinction is between claims on and liabilities to nonresidents in other union countries and claims on and liabilities to other nonresidents. Claims on and liabilities to the headquarters office of the RCB, when such an office exists, should also be separately identified in the sectoral balance sheets and surveys.

Other Depository Corporations

92. *The other depository corporations subsector consists of all resident financial corporations (except the central bank) and quasi-corporations that are mainly engaged in financial intermediation and that issue liabilities included in the national definition of broad money.* Examples of the designations given to institutional units in the other depository corporations subsector are

- commercial banks,
- merchant banks,
- savings banks, savings and loan associations, building societies, and mortgage banks,
- credit unions and credit cooperatives,
- rural and agricultural banks, and
- travelers' check companies that mainly engage in financial corporation activities.

93. The above list is neither exhaustive nor prescriptive; other names are given to some institutions that issue broad money liabilities. Conversely, in some countries, a number of the types of institutions in the preceding list may not issue liabilities included in national definitions of broad money, and would therefore not be classified as other depository corporations.

94. Some resident financial corporations engage exclusively (or almost exclusively) in transactions with nonresidents. These institutions, which usually have special regulatory or legal characteristics, are often called *offshore banks*. In many cases, these offshore banks do not issue liabilities that are included in broad money and therefore should be classified as other financial intermediaries. However, if they issue liabilities included in broad money, they should be classified as other depository corporations.

95. The other depository corporations subsector may include corporations operating under the control of receivers or regulators or that are no longer dealing with the public. Technically, bankrupt institutions that continue to operate may retain the legal status of operating banks, or a special status may be imposed. Chapters 6 and 7 describe the statistical treatment of the assets and liabilities of such depository corporations.

Other Financial Corporations

96. *The monetary and financial statistics recommended in this manual call for the separate identification of other financial corporations, which comprise the 1993 SNA subsectors relating* *to insurance corporations and pension funds, other financial intermediaries, and financial auxiliaries.*

Insurance Corporations and Pension Funds

97. *This subsector includes resident insurance corporations and quasi-corporations and autonomous pension funds. Insurance corporations consist of incorporated mutual and other entities whose principal function is to provide life, accident, health, fire, or other forms of insurance to individual institutional units or groups of units.*

98. *The pension funds included in this subsector are those that are constituted as separate from the units that have created them.* They are established for purposes of providing retirement benefits for specific groups of employees. They have their own assets and liabilities, and they engage in financial transactions on their own account. These funds are organized, and directed, by individual private or government employers, or jointly by individual employers and their employees, and the employees and/or employers make regular contributions. They do not cover pension arrangements for the employees of private or government entities that do not maintain a separately organized fund, nor do they cover arrangements organized by nongovernment employers and for which the reserves of the fund are simply added to that employer's own reserves or invested in securities issued by that employer.

Other Financial Intermediaries

99. *The subsector of other financial intermediaries covers a diverse group of units constituting all financial corporations other than depository corporations, insurance corporations, pension funds, and financial auxiliaries.* Units in the other financial intermediaries subsector generally raise funds by accepting long-term or specialized types of deposits and by issuing securities and equity. These intermediaries often specialize in lending to particular types of borrowers and in using specialized financial arrangements such as financial leasing, securitized lending, and financial derivative operations.

100. Examples of the designations given to units that are classified as other financial intermediaries are as follows:

- *Finance companies* are institutional units primarily engaged in the extension of credit to nonfinancial corporations and households. Many finance companies are captive subsidiaries that raise funds to be used by the parent corporations. Captive finance companies that are separate institutional units and that do not issue liabilities included in broad money should be classified as other financial intermediaries. Finance companies that are not separate should be included as part of the parent corporations in the appropriate subsector.

- *Financial leasing companies* engage in financing the purchase of tangible assets. The leasing company is the legal owner of the goods, but ownership is effectively conveyed to the lessee, who incurs all benefits, costs, and risks associated with ownership of the assets.

- *Investment pools* are institutional units that are organized financial arrangements, excluding pension funds, that consolidate investor funds for the purpose of acquiring financial assets. Examples are mutual funds, investment trusts, unit trusts, and other collective investment units. Investors usually purchase shares representing fixed proportions of the fund. The liquidity of investment pools can vary considerably. In many countries, investment pools are illiquid or have limited liquidity. In others, shares issued by investment pools are as (or nearly as) liquid as deposits and other liabilities issued by depository corporations. If the liabilities of liquid investment pools are included in broad money, they should be classified as other depository corporations.

- *Securities underwriters and dealers* include individuals or firms that specialize in security market transactions by (1) assisting firms in issuing new securities through the underwriting and market placement of new security issues and (2) trading in new or outstanding securities on their own account. Only underwriters and dealers that act as financial intermediaries are classified in this category. Security brokers and other units that arrange trades between security buyers and sellers but do not purchase and hold securities on their own account are classified as financial auxiliaries.

- *Vehicle companies* are financial entities created to be holders of securitized assets or assets that have been removed from the balance sheets of corporations or government units as part of the restructuring of these units. Many are organized as trusts or special purpose vehicles created solely to hold specific portfolios of assets or liabilities. Extensive use has been made of vehicle companies in conjunction with the securitization of assets. For example, an intermediary such as a mortgage lender could sell a portfolio of assets to a specially organized vehicle company that repackages the portfolio and sells investment interests in the portfolio to institutional or other investors. While the portfolio is usually sold irrevocably to the vehicle company, the intermediary that created the vehicle company often receives fee income for its administrative role. However, the vehicle company is the legal owner of the asset portfolio and thus may operate as a financial intermediary. If the vehicle company in the previous example sells a new financial asset (which could be a debt security, equity shares, or partnership interests) that represents an interest in the portfolio, the company is acting as a financial intermediary and—as long as a full set of accounts is available for the company—it is deemed to be a separate institutional unit. If the vehicle company does not sell a new financial asset representing an interest in the portfolio, the company has not effectively transformed or intermediated the portfolio and thus is not deemed to be a financial intermediary. Buyers of the portfolio would be treated as direct owners of the assets, rather than as investors in a portfolio controlled by the vehicle company. In such a case, the vehicle company would be considered a trust that passively holds assets. Issuance of depository receipts or trust receipts serving only as claims on instruments held in trust does not constitute issuance of a new financial asset.

- *Financial derivative intermediaries* consist of units that engage primarily in issuing or taking positions in financial derivatives recognized as financial assets.

- *Specialized financial intermediaries* include holding corporations, companies that provide short-term financing for corporate mergers and takeovers, export/import finance firms, factors or factoring companies, venture capital and development capital firms, and pawnshops that predominantly engage in lending rather than retailing.

Financial Auxiliaries

101. The financial auxiliaries subsector includes financial corporations that engage in activities closely related to financial intermediation but do not act as intermediaries. The 1993 SNA expanded coverage of the financial corporations sector to include the many units extensively engaged in activities that (except for the incurrence of liabilities or the extension of credit) closely relate to intermediation. Activities that are auxiliary to intermediation may be performed, on a secondary basis, by traditional financial intermediaries or by separate, specialized financial auxiliaries that do not, as a main business activity, raise funds or extend credit on their own account. The most common designations for financial corporations classified as financial auxiliaries are as follows:

- *Public exchanges and securities markets* are organized exchanges and entities such as security depository companies, accounting and clearing offices, and other companies providing exchange-related services. Depositories and electronic clearing systems operated by financial corporations fall into this subsector, as do national self-regulatory organizations that regulate or supervise exchanges and related units.

- *Brokers and agents* are individuals or firms that arrange, execute, or otherwise facilitate client transactions in financial assets. Included are brokers and agents handling the purchase and sale of securities or other financial contracts for clients, and financial advisory services that provide specialized services to brokers and their customers. Because many brokerage firms also trade in financial securities or financial derivatives on the firm's own account, it can be difficult to distinguish the brokers and agents from the underwriters and dealers classified as financial intermediaries. By convention, this grouping should include only brokers and agents that clearly specialize in brokerage and related activities rather than the intermediation activities that are generally accomplished by underwriters and dealers.

- *Foreign exchange companies* comprise units that buy and sell foreign exchange in retail or wholesale markets.

- *Financial guarantee corporations* insure customers against losses to specified financial corporations or against financial loss on specific contracts. Guarantors must establish financial capability for fulfilling potential obligations, and they must agree—usually for a fee—to insure that investors receive payment on securities or other financial contracts. In addition, the financial guarantee corporations grouping includes specialized corporations that protect depositors and investors against the failure of individual financial corporations. Distinguishing precisely between financial guarantee corporations and insurance corporations is difficult. Guarantee corporations

(1) do not have a definable pool of assets constituting insurance technical reserves,

(2) do not carry positions off balance sheet,

(3) may not be regulated as insurance corporations, and

(4) may be limited to specific types of financial transactions.

In borderline cases, these units should be classified as insurance corporations.

- *Insurance and pension auxiliaries* include agents, adjusters, and salvage administrators. The unique nature and, in some countries, the large scale of activity justify the separate identification of these units.

- *Other financial auxiliaries* comprise all other auxiliaries not classified elsewhere. The grouping includes independent units affiliated with the government and established to regulate financial institutions. The *1993 SNA* recommends classifying these units as part of the central bank subsector. However, these units are not intermediaries, and the activities of some units (such as securities commissioners or insurance regulators) have little relationship to well recognized central bank activities. Therefore, this manual recommends classification of these units in the financial auxiliaries subsector. Also classified in this subsector are financial units that facilitate issuance and trading in financial derivatives but do not actually issue derivatives, and representative offices of foreign depository corporations that do not accept deposits or extend credit, even though they promote and facilitate transactions of the nonresident parent company.

CLASSIFICATION OF TRUSTS

102. *Trusts are arrangements that provide for legal control of portfolios of assets and liabilities and specify the use of the portfolio holdings and the income generated thereby.* Personal trusts control portfolios of assets owned by individuals. Assets within personal trusts are treated as part of the direct holdings of the households that control the trusts. Many pension funds are organized as trusts. The pension fund portion of a trust is recognized as an institutional unit, whereas the trust is not separately identified for statistical purposes because its existence is irrelevant to the economic function being performed by the pension fund.

103. In general, trusts will not be recognized as separate institutional units and will be consolidated within the units that control or benefit from the trusts. However, it can be difficult to determine the institutional unit into which a trust should be consolidated. Trusts may be assigned to units on the basis of the following two alternative criteria (1) *Control*, as exercised by the unit that established or legally administers the trust, or (2) *Beneficial status*, as indicated by the unit that benefits from the income or services provided by the trust.

104. The criterion chosen for assigning the trust is important when the sector of the unit that establishes a trust differs from the sector of the beneficiary or when the trust is established in a foreign country. For example, a corporation could establish a trust to provide compensation to individuals in a product liability case, or governments could establish trusts to aid certain social groups or to promote research and development in an industry. Classification of a trust could be based on the legal language used in the trust charter to specify the beneficiary, the type of control exercised, national legal standards, or any residual claim held by the organizer of the trust. The originator's right to revoke the trust and residual claims on the trust should be given special consideration, because these factors provide evidence that the trust remains under the control of the unit that originally established the trust. Because compilers rarely have access to detailed information on all but the largest trusts, classification of trusts by sector may have to be based on the practical considerations of data compilation. In particular, only aggregate data on trusts administered by depository corporations may be reported; therefore, it becomes necessary for all trusts to be classified in the household sector, which usually accounts for the largest share of the trusts.

105. However, two important exceptions are permitted. The first exception is that trusts used for some types of financial intermediation (securitization, collateralized security issuance, and investment pooling) may be recognized as separate units if no other unit can reasonably be considered to control the portfolio, and if serious discrepancies would occur in the financial accounts if these financial trusts were ignored. The second exception is that trusts organized in foreign countries may be treated as foreign quasi-corporations, although such trusts probably should be so treated only in exceptional cases or when the trust evinces the characteristics of foreign direct investment.

THE NONFINANCIAL CORPORATIONS SECTOR

106. *The nonfinancial corporations sector encompasses corporations and quasi-corporations engaging primarily in the production of goods and nonfinancial services.*

The nonfinancial corporations sector is divided, on the basis of the types of institutional units exercising control, into two mutually exclusive subsectors. *Public nonfinancial corporations* are resident nonfinancial corporations and quasi-corporations controlled by government units. Control may be exercised through ownership of more than half the voting shares, legislation, decree, or regulations that establish specific corporate policy or allow the government to appoint the directors. *Other nonfinancial corporations* comprise foreign-controlled and national private nonfinancial corporations. *Foreign-controlled nonfinancial corporations* are resident nonfinancial corporations and quasi-corporations controlled by nonresidents. The classification of foreign-controlled corporations is based on majority control; thus, this is not identical with the balance of payments concept of direct investment enterprises, which include associated firms (those with 10–50 percent ownership by nonresidents). Classified under this heading are all resident subsidiaries (but not associates) controlled by nonresidents and all resident quasi-corporations, including branches, joint ventures, and unincorporated entities deemed to be separate institutional units, controlled by nonresidents. *National private nonfinancial corporations* are resident nonfinancial corporations and quasi-corporations that are not controlled by government or nonresident units.

107. Because it is difficult to determine the degree of effective control in a corporation that has minority ownership shares, the general rule is that owners should exercise majority control in the form of greater than 50 percent ownership. Thus, except when there is clear evidence of control, associated corporations in which governments or nonresidents have minority ownership are not classified as public corporations or as foreign-controlled corporations but rather as national private nonfinancial corporations.

THE GENERAL GOVERNMENT SECTOR

108. *General government units exercise legislative, judicial, or executive authority over other institutional units within a specified area.* Governments have authority to impose taxes, to borrow, to allocate goods and services to the community at large or to individuals, and to redistribute income. The general government sector consists of departments, branches, agencies, foundations, institutes, nonmarket NPIs controlled and mainly financed by government, and other publicly controlled organizations engaging in nonmarket activities. Various units of general government may operate at the state, local, or other levels of control.

109. Government units are involved in the production of goods and services that may be provided free of charge or sold at prices that are not economically significant. Government-owned, unincorporated enterprises that (1) produce market output, (2) are operated or managed as corporations, (3) charge prices that are economically significant, and (4) have complete sets of accounts should be classified within the nonfinancial corporations sector. The requirement that prices be economically significant means that prices must be high enough to have an impact on the demand for, and supply of, a good or service. Government enterprises that engage in market activities but cannot be treated as corporations or quasi-corporations are classified within the general government sector.

110. The *1993 SNA* describes two alternatives for dividing the general government sector into subsectors. The first method defines the subsectors as central government, state government, local government, and social security funds. The second method includes social security funds in the subsectors of general government in which they operate.

THE HOUSEHOLD SECTOR

111. *A household is defined as a small group of persons who share the same living ccommodation, pool some or all of their income and wealth, and consume certain types of goods and services (mainly housing and food) collectively.* Unattached individuals are also considered households. Other groups, such as persons in monasteries, hospitals, asylums, prisons, and retirement homes, may constitute households if the inhabitants share resources and consumption for extended periods. Servants or other paid domestic employees who live on the premises but do not have claims on the collective resources are treated as separate households. Individuals who work in other countries are considered part of their home country households unless and until they establish centers of economic interest in foreign economies.

112. Households may engage in the production of goods and services for sale in the market, for consumption by the household itself, for construction of housing, and for accumulating other physical capital for the household's own use. Unincorporated enterprises owned by households and engaged in market production are classified in the nonfinancial corporations sector if the enterprises can be treated as quasi-corporations. Otherwise, these unincorporated enterprises are classified in the household sector.

113. The activities of unincorporated enterprises owned by households correspond closely to informal economic activity, which exists in all countries. The informal economy is not identical with hidden or illegal activities. *Informal economic activity* typically consists of small-scale production that provides employment and income for individuals or small family or kinship units but is not integrated into a formal system of registration or legal recognition. In many developing countries, the informal economy is extensive, and statistics on the extent of production and income generated through informal activities are clearly necessary. In economies with large informal sectors, many financial flows may be channeled through informal markets, and it may be necessary to develop statistics on informal financial activity in order to measure the behavioral relationships between monetary and financial activity and nonfinancial activity.

THE NONPROFIT INSTITUTIONS SERVING HOUSEHOLDS SECTOR

114. *The NPISH sector comprises a subset of nonprofit institutions.* NPISHs are mainly engaged in providing goods and services to households or the community at large free of charge or at prices that are not economically significant (and thus are classified as nonmarket producers), except those that are controlled and mainly financed by government units. NPISHs are mainly financed from contributions, subscriptions from members, or earnings on holdings of real or financial assets. NPISHs consist mainly of associations such as trade unions; professional or learned societies; consumers' associations; political parties (except in single-party states in which the political party is included in general government); churches and religious societies (including those financed by government); social, cultural, recreational, and sports clubs; and organizations that provide goods and services for philanthropic purposes rather than for the units that control them

INSTITUTIONAL AND FUNCTIONAL STATISTICS

115. This manual follows the sectorization principles of the *1993 SNA* and recommends compiling monetary and financial statistics on an institutional basis, showing stocks and flows as being attributed to statistical units. However, functional-based statistics, which group stocks and flows according to the functions or objectives they serve, may provide useful supplementary information. In the context of monetary statistics, functional statistics have particular relevance in two specific situations. First, in some countries, the central government (or, less frequently, a unit in some other sector) rather than the central bank

carries out certain central banking functions. Chapter 7 of this manual recommends that, in such situations, consideration be given to compiling a monetary authorities account that consolidates the accounts of the central bank with those accounts of the central government relating to central-banking functions. The second situation concerns deposit-taking activities of the central government, or of public institutions such as post office checking and savings units that are not organized as separate institutional units. While such deposit-taking activities are outside the scope of the monetary statistics, Chapter 6 recognizes that national definitions of broad money often include such deposits, along with the monetary liabilities of depository corporations.

IV. Classification of Financial Assets

INTRODUCTION

116. This chapter describes the principal characteristics of financial assets and other financial instruments and their classification within the framework of monetary and financial statistics. The recommended classification follows that of the *1993 SNA*.

117. Financial instruments comprise the full range of financial contracts made between institutional units. Financial instruments are classified as *financial assets* or as *other financial instruments*. Financial assets are financial claims (e.g., currency, deposits, and securities) that have demonstrable value. Other financial instruments (e.g., financial guarantees and commitments such as lines of credit, loan commitments, and letters of credit) that are contingent or conditional upon the occurrence of uncertain future events are outside the financial assets boundary and are classified as other financial instruments.

118. Special considerations apply to the compilation of monetary statistics in countries that have Islamic banking systems. Appendix 2 of this manual covers these considerations.

DEFINITION OF FINANCIAL ASSETS

119. This manual and the *1993 SNA* define financial assets as *a subset of economic assets—entities over which ownership rights are enforced, individually or collectively, by institutional units and from which economic benefits can be derived by holding or using the assets over a period of time.* Most financial assets are financial claims arising from contractual relationships entered into when one institutional unit provides funds to another. These contracts are the basis of creditor/debtor relationships through which asset owners acquire unconditional claims on economic resources of other institutional units. The creditor/debtor relationship imparts asset and liability dimensions to a financial instrument. Despite the absence of a corresponding liability, monetary gold and SDRs are also considered to be financial assets.

CLASSIFICATION OF FINANCIAL ASSETS

120. The classification scheme of the *1993 SNA* should be used to classify financial assets. This classification scheme is based primarily on two criteria (1) the liquidity of the asset and (2) the legal characteristics that describe the form of the underlying creditor/debtor relationship. The concept of liquidity subsumes other more specific characteristics, such as negotiability, transferability, marketability, or convertibility. These characteristics play a major role in determining the categories, although they are not separately identified. This classification is designed to facilitate the analysis of transactions of institutional units and is a framework for assessing the sources and uses of financing and degree of liquidity for these units.

Monetary Gold and SDRs

121. *Monetary gold and SDRs issued by the IMF are financial assets for which there are no corresponding financial liabilities. Monetary gold consists only of gold held by the central bank or government (or by others subject to the effective control of the central bank or government) as part of official reserves.* Gold holdings that are not part of official reserves are classified as nonfinancial assets.

122. Purchases (sales) of monetary gold are recorded in the accounts of the central bank as increases (decreases) in assets, and the counterparts are recorded as decreases (increases) in assets of the rest of the world. Transactions in nonmonetary gold are treated as transactions in nonfinancial assets.

123. *SDRs are international reserve assets created by the IMF and allocated to members to supplement existing official reserves.* IMF members to whom SDRs are allocated do not have an actual (unconditional) liability to repay their SDR allocations. SDRs are held only by IMF member countries and a limited number of international financial institutions that are authorized holders. SDR holdings represent unconditional rights to obtain foreign exchange or other reserve assets from other IMF members.

CURRENCY AND DEPOSITS

Currency

124. *Currency consists of notes and coins that are of fixed nominal values and are issued by central banks or governments.* Currency is divided into separate categories for national currency and foreign currency representing liabilities of central banks or governments in other countries.

125. Some countries issue gold coins, which are held for intrinsic value, or commemorative coins, which are held for numismatic value. If not in active circulation, such coins should be classified as nonfinancial assets rather than as financial assets.

126. Central bank or central government holdings of unissued or demonetized currency are not financial assets and should not be recorded in sectoral balance sheets.

Deposits

127. *Deposits include all claims on the central bank, other depository corporations, government units, and, in some cases, other institutional units that are represented by evidence of deposit.* The category of deposits comprises transferable deposits and other deposits. Separate categories are used for deposits denominated in national currency and for those in foreign currency.

Transferable Deposits

128. *Transferable deposits comprise all deposits that are (1) exchangeable on demand at par and without penalty or restriction* and *(2) directly usable for making payments by check, draft, giro order, direct debit/credit, or other direct payment facility.*

129. Mutual funds sometimes offer accounts with unrestricted check-writing privileges; these are functionally close to transferable deposits. Mutual fund instruments with these characteristics should be classified as transferable deposits.

130. Some types of deposit accounts embody only limited features of transferability. For example, some deposits have restrictions such as on the number of third-party payments that can be made per period and/or on the minimum size of the individual third-party payments. Judgment must be applied in deciding whether deposits with less-than-full transferability features should be classified as transferable deposits in the national context.

Other Deposits

131. *Other deposits comprise all claims, other than transferable deposits, that are represented by evidence of deposit.* Typical forms of deposits included under this classification are as follows:

- Sight deposits that permit immediate cash withdrawals but not direct third-party transfers.

- Savings and fixed-term deposits.

- Nontransferable deposits denominated in foreign currencies.

- Financial corporations' liabilities in the form of shares or similar evidence of deposit that are, legally or in practice, redeemable immediately or at relatively short notice.

- Shares of money-market mutual funds that have restrictions on transferability, such as on the number of checks that may be written per period or on the minimum amount per check.

- Repurchase agreements that are included in the national measures of broad money. Repurchase agreements that are not included in broad money should be classified under loans.

132. *Restricted deposits are those for which withdrawals are restricted on the basis of legal, regulatory, or commercial requirements.*[7] Examples of restricted deposits are as follows:

- Import deposits that are required of importers in advance of importation.

- Transferable deposits that have been posted to depositors' accounts, but that cannot be drawn upon until the deposited items (e.g., checks or drafts) have been collected by the depository corporations that accepted them.

- Compulsory savings deposits arising from an official requirement that a share of a worker's earnings be placed in a deposit account that can be accessed only after a specified period or from which withdrawals may be made only for specified purposes (such as home purchase or retirement).

- Foreign currency deposits that are blocked (i.e., not withdrawal) because of the rationing of foreign exchange as a matter of national policy.

- Deposits in financial corporations that are closed pending liquidation or reorganization.

133. The nature of such restrictions needs to be considered in deciding which, if any, types of restricted deposits should be included in the monetary aggregates, as described in Chapter 6.

[7]Deposit restrictions as defined herein do not include limitations on early withdrawal of deposits that have agreed maturities. A time deposit withdrawal prior to maturity may not be allowed, or, if allowed, typically carries a penalty for early withdrawal. Such withdrawal conditions are treated as standard maturity provisions of time deposits, rather than as deposit restrictions.

SECURITIES OTHER THAN SHARES

134. *Securities other than shares are negotiable instruments serving as evidence that units have obligations to settle by means of providing cash, a financial instrument, or some other item of economic value.* Some common types of securities are government treasury bills, government bonds, corporate bonds and debentures, commercial paper, and certificates of deposit issued by depository corporations. Examples of less common types of securities include tradable depository receipts, notes issued through revolving underwriting facilities (RUFs) and note issuance facilities (NIFs), and securitized mortgage loans and credit card receivables. Loans that have become negotiable de facto should be classified under securities other than shares.

135. *A security provides evidence that a claim exists and specifies the schedule for interest payments and principal repayments.* Common types of securities are those sold on

- a *coupon basis*, stipulating that periodic interest, or coupon, payments will be made during the life of the instrument and that the principal will be repaid at maturity;

- an *amortized basis*, stipulating that interest and principal payments will be made in installments during the life of the instrument;

- a *discount*, or *zero coupon, basis*, whereby a security is issued at a price that is less than the face (or par) value of the security, and all interest and principal are paid at maturity;

- a *deep discount basis*, whereby a security is issued at a price that is less than face value, and the principal and a substantial part of the interest is paid at maturity; or

- *an indexed basis*, which ties the amount of interest and/or principal payment to a reference index such as a price index or an exchange rate index.

136. Preferred stocks or shares that pay a fixed income but do not provide for participation in the distribution of the residual value of an incorporated enterprise on dissolution are included in this category. Bonds that are convertible into shares should also be classified in this category.

137. Securitization of financial assets is sometimes used in the creation of securities other than shares. Securitization involves the issuance of securities that are backed by financial assets such as mortgage loans, claims on credit card holders, and other types of loans. The financial assets (e.g., the mortgage loans) that back the securities continue to be shown on the asset side of the balance sheet. The liability side of the balance sheet shows the securities, which are sold to investors who are interested in acquiring indirect claims on the principal and interest payments that are expected to flow from the financial assets that have been securitized.

138. Banker's acceptances are treated as actual financial assets even though no funds may have been exchanged. A banker's acceptance involves the acceptance by a financial corporation of a draft or bill of exchange and the unconditional promise to pay a specific amount at a specified date. The banker's acceptance represents an unconditional claim on the part of the holder and an unconditional liability on the part of the accepting bank; the bank's counterpart asset is a claim on its customer. Banker's acceptances should be classified under the category of securities other than shares.

LOANS

Definition and Classification

139. *Loans are financial assets that (1) are created when a creditor lends funds directly to a debtor and (2) are evidenced by non-negotiable documents.*[8] This category includes all loans and advances—except accounts receivable/payable, which are treated as a separate category of financial assets—extended to various sectors by financial corporations, governments, and, in some countries, by other sectors.

140. This category includes installment loans, hire-purchase credit, and loans to finance trade credit. Claims on or liabilities to the IMF that are in the form of loans are also included in this category.

141. Through financial leases, all the risks and rewards of ownership are transferred from the legal owners of goods (lessors) to users of the goods (lessees). Financial leases are classified as loans.

Repurchase Agreements and Lending of Securities and Other Nonloan Assets

142. A securities repurchase agreement (repo) is an arrangement involving the sale, for cash, of securities at a specified price with a commitment to repurchase the same or similar securities at a fixed price either on a specified future date (often one or a few days hence, but increasingly further in the future) or with an "open" maturity[9]. A *repo* is viewed from the perspective of the seller of the securities—i.e., "the cash taker." The agreement is called a *reverse repo* when viewed from the perspective of the securities buyer—i.e., the "cash provider."

143. Repos convey "full, unfettered ownership" of the securities to the cash provider, which entitles the cash provider to on-sell—i.e., to sell the securities to a third party. Traditionally, on-selling of the securities occurred only if the cash taker defaulted on the repo, but on-selling in non-default situations has become commonplace. Despite the legal conveyance of "full, unfettered

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[8] Loans and deposits, which may have almost identical characteristics, are distinguished on the basis of the representation in the documents that evidence them.

[9] "Open" maturity is where both parties agree daily to renew or terminate the agreement. Such an arrangement avoids settlement costs if both parties wish to rollover the repo on a continuing basis.

ownership" to the cash provider, some ownership rights, in the economic sense, are retained by the cash taker (i.e., the securities provider). In particular, the cash taker retains the market risk and ownership benefits, other than the right of sale, including holding gains or losses and interest income on the securities. Because of these features, a repo is similar to a loan that is collateralized by the securities underlying the agreement.

144. Repos may be used for a variety of different purposes, for example, as a means of financing the acquisition of the underlying instrument; for cash borrowing; or as a means of covering a short position. In some circumstances, substitution of the securities may be permitted[10]; also, margin is often provided as added protection against adverse movements in the price of the security. Repurchase agreements are usually "cash driven", that is, the motivation is to obtain cash (with the security provided as collateral) but they may be "security driven", where the motivation is to obtain a security when it has "gone special"—i.e., when it has become difficult to obtain. If provided, margin is usually paid by the party initiating the transaction, regardless of whether it is cash or security driven.

145. This manual and the *1993 SNA* recommend that securities repurchase agreements be treated as collateralized loans (or deposits[11]) rather than as outright sales of securities. Therefore, the securities should remain on the balance sheet of the cash taker, and a new financial asset—i.e., a loan (or deposit)—should be recorded as an asset of the cash provider and a liability of the cash taker.

146. Securities acquired under reverse repo may in turn be repoed. In such a circumstance, the securities under repo support two loan transactions—the cash provider's claim on the cash taker under the original repo and the claim of the "on-buyer" (i.e., the cash provider under the new repo) on the original cash provider (i.e., the cash taker under the new repo who is also the cash provider under the first repo/reverse repo). In this situation, the party with the loan asset from the reverse repo does not net it against the loan payable in the subsequent repo because the counterparties to the two transactions are different. No double counting of the holding of the security should arise in such a case, because the securities underlying both the first and the second repos continue to be recorded only on the balance sheet of the original cash taker.

147. This manual makes a specific recommendation on the statistical treatment of securities that are acquired under reverse repo and are on-sold outright. Although a cash provider should not record the acquisition of a security under a reverse repo as a transaction in securities, if the security so acquired is on-sold outright a transaction in the security should be recorded by the cash provider (and by the outright purchaser). This is known as "short selling[12]"—the sale of a financial asset not currently held on-balance sheet—and results in a recorded negative (or "short") position in the security for the on-seller[13]. This treatment reflects economic reality in that the holder of the negative position is exposed to the risks and benefits of ownership, in an equal and opposite way, as a party in a long position. Interest accrues on the negative position negatively (i.e., the negative position becomes larger). The recording of a negative position overcomes the double counting, in aggregate, that would otherwise result from the security being recorded as an on-balance sheet asset holding of the third party that has purchased it outright, as well as still being recorded on-balance sheet as a security asset holding of the cash taker under the repo.

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[10] Similar securities can be substituted if permitted under the agreement "Similar" may be defined very narrowly or more broadly, depending on the circumstances.

[11] Repurchase agreements that are included in the national definition of broad money should be classified as non-transferable deposits. All other securities repurchase agreements should be classified under loans.

[12] This treatment should be applied to the recording of all short sales of securities, whether or not associated with repos.

[13] The relevant security asset category may still record positive holdings if other securities of that category are held on-balance sheet to a greater value than those that have sold "short".

148. However, in this instance, additional information may be required for a fuller understanding of the repo market and to determine who is holding the instrument. It is often useful for analysis of liquidity, leverage and vulnerability to identify the parties to repo transactions. Accordingly, it is recommended that when a repo (reverse repo) is undertaken, data on the counterparty to the repo (reverse repo) transaction (resident sector or nonresident) and the instrument and sector of issuer (e.g., government debt security) should be provided as supplementary information.

149. *Securities lending* refers to an arrangement whereby a security holder transfers securities to a "borrower," subject to the stipulation that the same (or similar[14]) securities be returned on a specified date or on demand. "Full, unfettered ownership" is transferred to the "borrower," but the risks and benefits of ownership remain with the original owner.[15] The practice is undertaken by owners of securities to raise the return on the securities and/or to reduce the cost of custody.

150. Securities lending arrangements are divided into two major categories that are delineated by the type of collateral—either cash or securities—that is provided to the lender of the securities[16]. The borrower of the securities usually provides collateral that is of equal value to, or greater value than, the value of the securities being lent.

151. Securities lending that is backed by cash collateral is very similar to a repo, has the same economic effect as a repo, and so, is treated statistically in the same way.

152. Securities lending that is backed by non-cash collateral (or that is not collateralized) should be recorded off-balance sheet by both the lender and borrower of the securities, rather than be treated as a transaction. If the securities are on-sold outright to a third party, the "borrower" of the securities should record a security transaction, and a reduction in security assets, resulting in a negative ("short") position in that security asset. As with repos, this approach overcomes the double counting that would otherwise result, in the aggregate, from the security being recorded as an on-balance sheet asset holding of the third party that has purchased it outright as well as still being recorded on-balance sheet as a security asset holding of the original lender of the securities.[17]

153. Where a security acquired under a securities transaction has been on-sold, additional information may be required to understand securities lending activity and to determine who is holding the instrument. Accordingly, it is recommended that data on the counterparty (resident sector or nonresident) to the securities lending and the instrument and sector of issuer (e.g., government debt security) be provided as supplementary information. In some instances, these data may prove difficult to obtain as it is possible that the owner of the security is unaware that the security is under a security lending arrangement. This situation is common as custodians often obtain blanket agreements from the securities' owners to lend the securities without obtaining specific approval on each occasion. The custodian usually indemnifies the owner against any loss. When this occurs, the owner may be unaware that a security has been "loaned". Accordingly, it is recommended that when securities lending without cash collateral is significant, every effort be made to obtain data on this activity from the custodians.

154. *Gold swaps*[18,19] are forms of repurchase agreements commonly undertaken between

[14]Similar securities can be substituted if permitted under the lending arrangements. "Similar" may be defined very narrowly or more broadly, depending on the circumstances.

[15]If the original owner does not retain these elements of ownership, the provision of the securities should be viewed as an outright sale.

[16]In some instances, no collateral is provided.

[17]Conceivably, the collateral might be provided in part in securities and the rest in cash. If so, the securities lending should be recorded as a loan in the amount of the cash collateral and, in all other respects, should not be recorded on the balance sheets of the lender and borrower of the securities.

[18]These swaps should not be confused with interest rate or currency swaps that are financial derivatives, as described later in this chapter.

[19]Gold swaps may be more broadly defined to include arrangements involving nonmonetary gold and parties other than qualified holders of monetary gold.

central banks or between a central bank and other types of financial institutions. They occur when gold is exchanged for foreign exchange, at a specified price with a commitment to repurchase the gold at a fixed price on a specified future date so that the original party remains exposed to the gold market. Its features are, therefore, very similar to those of a repo. Consequently, they should be treated in like manner. For example, if one million ounces of gold is swapped by one central bank with another central bank for cash of $300 million (at the current market price of $300/oz[20]), and the price of gold drops to $250/oz. before the close of the contract, one million ounces will be returned when $300 million (plus interest) is repaid.

155. Gold swaps should be recorded as collateralized loans when they involve the exchange of gold for cash (in domestic or foreign currency). Consequently, the gold remains on the balance sheet of the original owner and is not taken on to the balance sheet of the cash provider—in the same manner in which a repurchase agreement is recorded. If gold received under a gold swap is swapped again, the same treatment applies—it is treated as a collateralized loan by both parties. In the event that the gold received under a gold swap is sold outright, the seller (if not a monetary authority) should record a negative ("short") holding of nonmonetary (i.e., commodity) gold and the purchaser (if not a monetary authority) should record on its balance sheet a holding of nonmonetary (i.e., commodity) gold. If the gold acquired under a gold swap is sold outright by a nonmonetary authority to a monetary authority, monetization will be involved[21]. If gold received under a gold swap is sold outright by a monetary authority (whether to a monetary authority or another party), it should record on its balance sheet a negative position in monetary gold. The transaction will involve demonetization if the counterparty in this instance is not a monetary authority.

156. *Gold loans* (or gold deposits) may be undertaken to obtain an income return on gold. The gold that is placed on loan (or deposit) may be either a financial asset (i.e., monetary gold) or a nonfinancial asset (i.e., nonmonetary gold.) The gold remains on the books of the gold lender, and the lender retains the exposure to the market risk arising from movements in the market price of gold. Gold loans (or deposits) are not backed by cash collateral and, in some cases, are not backed by non-cash collateral. However, the gold may be on-sold by the borrower. This manual recommends that gold loans be treated as off-balance-sheet items (i.e., not recorded as transactions). If the gold is on-sold, however, the on-selling party (i.e., the gold borrower) should record a gold transaction, in like manner to gold swaps.

157. For all of the above transactions (repos, securities lending, gold swaps and gold loans), if it is not practical to record them as collateralized loans, or in the case of securities lending and gold loans (deposits) as no transaction at all, treating them as transactions in the underlying instrument is an acceptable alternative. For securities lending, as no cash changes hands, if a transaction in the security is recorded, the counter-entry should be an account payable/receivable. For gold loans (deposits) the gold should be demonetized and be recorded as a transaction in nonmonetary gold if either of the counterparties is not a monetary authority. Supplementary information, as a memorandum item, on the value of the underlying asset due to be returned (received) on the reverse leg should also be provided.

158. It should be emphasized that consistency of treatment is important so that if the collateralized approach is not appropriate for any of repos, securities lending, gold swaps or gold loans, they should all be treated as transactions in the underlying assets. If some were treated as transactions in the underlying assets and others as collateralized loans, analytical confusion is likely to result.

[20] Assuming no payment of margin.

[21] This could create the situation where monetary gold is overstated, in as far as the same holding of gold would be reported on the balance sheet of two monetary authorities at the same time, if both the originator of the gold swap and the outright purchaser are monetary authorities, and the outright seller is not a monetary authority, as there will be no offsetting negative position—the negative position will be recorded by the nonmonetary authority in nonmonetary gold.

159. Recording repos, securities lending, gold swaps and gold loans (reverse transactions) under the collateralized loan approach when the ownership of the underlying asset changes hands, as set out in this manual, is contrary to the ownership principle in the *1993 SNA*. While there are other types of transactions where a strict change of ownership is not followed (e.g., under a financial lease), the collateralized loan approach for reverse transactions can lead to data that are analytically deficient.

160. For example, if a resident undertakes a reverse repo with a nonresident, which it then follows with an outright sale to another nonresident, two nonresidents would be recorded as holding the same security, thereby overstating external debt. Similarly, if the cash provider in a reverse repo were to go bankrupt before the reverse leg was completed, the cash taker would have no claim on the issuer of the security even though it would still be recording such a claim on its balance sheet. In order to overcome these deficiencies, countries may wish to consider augmenting the presentation of the data. This could be done by recording, in addition to the transaction (position) in a collateralized loan, a transaction in the underlying asset and an obligation (claim) of the counterparty to the transaction to return the asset. In effect, this recognizes two additional transactions and positions outstanding, one extra asset and one extra liability.

161. Consequently, for repos and gold swaps, four financial account transactions would be recorded: a loan (payable/receivable) with a commensurate change in currency and deposits, plus a transaction in the asset, coupled with the recognition of the obligation (right) to return (receive) the asset at the termination of the repo's life as an entry in accounts receivable/payable. For security lending and gold loans, a transaction in the underlying asset would be recorded, coupled with the recognition of the obligation (right) to return (receive) the underlying asset at the termination of the borrowing's (lending's) life as an entry in accounts receivable/payable. For repos and securities lending, interest would accrue on the account receivable/payable at the rate of interest on the underlying security, reflecting the cost of provision of the capital advanced. For gold swaps and gold loans, there is no such interest accrual.

162. Under this "augmented" collateralized loan approach, the underlying asset is recorded as being held by the party that legally owns it and has the obligation to return (right to receive back) the underlying asset. In addition, in the case of a repo, a cash loan is also recorded. Inter-sector claims and income attribution are accurately recorded, including for external debt. However, implementing such an approach may represent a major change in the reporting systems in many countries.

163. There are two other possible drawbacks to this approach. First, if a repo is used to finance the acquisition of a security, the continued exposure of the original owner to the particular type of security would only be identified if there were supplementary information (on the instrument and sector of issuer) to indicate which securities have been repoed or lent (borrowed). Second, it could be argued that this approach brings on-balance sheet an off-balance sheet entry (i.e., the commitment to return/right to receive back the underlying security) Also this treatment would result in the "grossing-up" of the balance sheets of the units involved.

164. Despite these limitations, compilers may find this additional information useful where there is concern that the collateralized loan approach is insufficient for analytical needs.

SHARES AND OTHER EQUITY

165. *Shares and other equity comprise all instruments and records acknowledging, after the claims of all creditors have been met, claims on the residual value of a corporation.* Ownership of equity is usually evidenced by shares, stocks, participations, or similar documents. This category includes proprietors' net equity in quasi-corporations, as well as shares and equity in corporations. It also includes preferred stocks or shares that provide for participation in the residual value on dissolution of an incorporated enterprise.[22]

166. In the context of the monetary statistics in Chapter 7 of this manual, financial corporations' total liabilities in the form of shares and other equity are divided into the following separate components:

- *Funds contributed by owners* include the total amount from the initial and any subsequent issuance of shares, stocks, or other forms of ownership of corporations and quasi-corporations.

- *Retained earnings* constitute all after-tax profits that have not been distributed to shareholders or appropriated as general or special reserves.

- *General and special reserves* are appropriations of retained earnings.[23]

- *SDR allocations* are the counterpart to the SDRs that have been provided by the IMF to central banks—the only financial corporations that receive SDR allocations.

- *Valuation adjustment* shows the net counterpart to changes in the value of assets and liabilities on the balance sheets of financial corporations.

167. Disaggregation of shares and other equity into the above categories is a departure from the *1993 SNA*, which treats shares and other equity as a single composite item. The rationale for compiling data on the separate components of shares and other equity on the liability side of the balance sheet, and the accounting rules for valuing these components, are described in Chapter 5 of this manual.

[22]Preferred stocks or shares that pay a fixed income and do not provide for participation in the distribution of the residual value of an incorporated enterprise on dissolution are included in securities other than shares.

[23]In many cases, general reserves are required by law to provide the entity and its creditors with an added measure of protection from the effects of losses. Special reserves also provide added protection, but from the effects of losses that may arise from specific activities of the corporation or quasi-corporation.

INSURANCE TECHNICAL RESERVES

168. *Insurance technical reserves consist of net equity of households in life insurance reserves and pension funds and prepayments of premiums against outstanding claims.* All these items are considered assets of beneficiaries and policyholders.

Net Equity of Households in Life Insurance Reserves and in Pension Funds

169. This category comprises policyholders' claims on the reserves of insurance corporations and pension funds. These reserves ultimately must be used to provide benefits to policyholders upon their retirement or upon the occurrence of other specified events, or to compensate heirs upon the death of the policyholder. These claims constitute assets of the household sector rather than of insurance corporations or pension funds.

170. *Net equity of households in life insurance reserves* is equal to the discounted present value of a policyholder's expected claims on the future payments of endowments and capital sums (including shared profits) on maturity or in the event of death.

171. Employers or employees establish *pension funds* to provide retirement income or other benefits. They can place the funds either in legally segregated assets administered by employers or beneficiaries or in assets administered by a financial corporation in exchange for a fee. Pension funds are considered assets of the beneficiaries in the household sector rather than assets of the institutional units that manage the funds. Pension funds do not include social security funds, which are considered part of the general government sector.

172. Only the equity of households in funded pension plans is recorded in pension fund accounts, because only these pension plans provide separate pools of asset reserves used to pay benefits. Plans that are unfunded are not segregated from other financial accounts of the pension provider and therefore do not have

identifiable assets that can be considered pension fund assets of the household sector.

173. The net equity of households in pension funds relates to claims on the future payment of income on the attainment of a specified age or at the end of a specified period. The nature of the liability of the pension fund and the asset of the household depends on the nature of the pension plan. In a defined benefit plan, the employer guarantees the level of pension benefits to participating employees. The liability of the defined benefit plan is equal to the present value of the promised benefits. In defined contribution (money purchase) plans, the contributions are fixed, but benefits depend directly on the assets of the fund. The liability of a defined contribution fund, and the assets of households, is equal to the current market value of the assets of the fund.

Prepayments of Insurance Premiums and Reserves Against Outstanding Claims

174. *Prepayments of insurance premiums and reserves against outstanding claims are current claims of policyholders and beneficiaries rather than net equity of insurance corporations.* Prepayments of premiums, which are made by customers at the beginning of the periods covered by their policies, generate reserves for insurance corporations. Such prepayments are considered to be earned by an insurance corporation on a prorated basis during the policy period. These reserves are assets of policyholders.

175. Reserves against outstanding claims are funds set aside by insurance corporations to cover the amounts that they expect to pay out in respect of claims that are not yet settled or claims that may be disputed. Reserves against such outstanding claims are considered to be assets of the beneficiaries and liabilities of the insurance corporations. Policy benefits due to claimants are considered assets of the claimants. Until actually paid, these assets are held by insurance corporations as reserves.

FINANCIAL DERIVATIVES

176. *A financial derivatives contract is a financial instrument that is linked to a specific financial instrument, indicator, or commodity, and through which specific financial risks (such as interest rate risk, currency, equity and commodity price risk, credit risk, etc.) can be traded in their own right in financial markets.* The value of a financial derivative derives from the price of an underlying item, such as an asset or index. No principal amount is advanced that has to be repaid, and no investment income accrues. Financial derivatives are used for a number of purposes, including risk management, hedging, arbitrage between markets, and speculation.

177. The two broad types of financial derivatives are forward-type contracts and option contracts. In a *forward-type contract,* which is unconditional, two counterparties agree to exchange a specified quantity of an underlying item (real or financial) at an agreed-upon price (the *strike price*) on a specified date. In an *option contract*, the purchaser acquires from the seller a right to buy (or sell, depending on whether the option is a call or a put) a specified underlying item at a strike price on or before a specified date.

178. Characteristics of the major types of financial derivatives are covered in the annex to Chapter 5, which describes the statistical treatment of the stocks and flows associated with such contracts.

OTHER ACCOUNTS RECEIVABLE/PAYABLE

179. *Other accounts receivable/payable include (1) trade credit and advances* and *(2) other. Trade credit and advances* comprise (1) trade credit extended directly to corporations, government, nonprofit institutions, households, and the rest of the world and (2) advances for work that is in progress (or is to be undertaken) and prepayment for goods and services. Trade credits and advances do not include loans to finance trade credit, which are classified under the category of loans. The *other* category is used to record all items that need to be reviewed for classification elsewhere, as well as accrued taxes and accrued expenses such as rent, wages, and salaries. The *other* category also includes items such as deferred income and provisions for loan losses and other purposes.

OTHER FINANCIAL INSTRUMENTS

180. Many types of contractual financial arrangements between institutional units do not give rise to unconditional requirements either to make payments or to provide other objects of value. These arrangements, which are often referred to as contingencies, are not defined as financial assets and should not be recorded in the balance sheets of financial corporations. Guarantees of payment by third parties are contingencies, because payment is only required if the principal debtor defaults. Lines of credit provide guarantees that funds will be made available, but no financial asset (i.e., loan) is created until funds are actually advanced. Letters of credit are promises to make payment only when certain documents specified by contract are presented. Note issuance facilities (NIFs) provide guarantees that parties will be able to sell short-term securities (notes) that they issue and that the financial corporations providing the facility will purchase any notes not sold in the market. Only if the financial corporation providing the facility makes funds available will it acquire an actual asset, to be recorded in the balance sheet.

181. Even though excluded from the monetary and financial statistics, data on contingencies should be reported to the compilers of monetary and financial statistics.

V. Stocks, Flows, and Accounting Rules

INTRODUCTION

182. This chapter covers financial *stocks* and *flows* and the *accounting rules* that together constitute major elements of an integrated and consistent system for the compilation of monetary and financial statistics. The stock and flow concepts and accounting rules set forth follow the framework of the *1993 SNA*. The framework is a consistent system that, in principle, measures each financial flow or stock identically for the parties involved, using a single set of accounting rules. The framework is also an integrated system in which changes in stocks of financial assets and liabilities fully account for all flows recorded between periods. The framework divides the recorded flows into separate components for *transactions*, *revaluations*, and *other changes in the volume of assets* (OCVA).

183. This chapter covers three broad categories of accounting rules, pertaining to (1) the *valuation* of financial assets and liabilities, (2) the *time of the recording* of transactions, and (3) the *aggregation, consolidation,* and *netting* of stock and flow data. The basic principle, as recommended in this manual and the *1993 SNA*, is the use of *market prices* or *fair values* for valuing financial assets and liabilities. *Market exchange rates* should be used to convert foreign-currency-denominated assets and liabilities into their domestic currency equivalents.

184. It is necessary to use special valuation methods for financial assets and liabilities that are not market traded on a regular basis. This chapter describes the methods for deriving *fair values*—approximations of market values—for nontraded assets and liabilities. Other exceptions to the market valuation principle are necessary for the valuation of loans and of shares and other equity in the compilation of the monetary statistics.

185. *Time of recording* of transactions is based on the principle of simultaneous recording by the parties to the transaction and the application of accrual accounting. Claims and obligations should be recorded as they accrue—that is, when they are created, transferred, or canceled—rather than when payments for transactions occur.

186. *Aggregation* of data is the general rule for the reporting of data underlying the monetary and financial statistics. Aggregation entails the summation of stock or flow data across all institutional units within a particular group (i.e., subsector or sector) and, for a given subsector, the summation of all stock or flow data within a particular asset or liability category. *Sectoral balance sheets*—the underlying data sets for the monetary and financial statistics—should be compiled as aggregated data.

187. *Consolidation* of data also arises in the monetary statistics described in Chapter 7, where data are presented in the form of *surveys* that cover all assets and liabilities of the financial corporations sector and its subsectors. Consolidation entails the "canceling out" of stocks and flows that arise from financial claims and corresponding obligations *between* the institutional units within the financial sector or subsector covered by a particular survey.

188. The general principle in this manual and in the *1993 SNA* is that data should be recorded and compiled on a gross basis. However, exceptions to the general rule arise from circumstances in which the compilation of data on a net basis is appropriate or is necessitated by unavailability of data on a gross basis.

189. In view of their unique characteristics and relative complexity, *financial derivatives* are discussed in an annex to this chapter.

FINANCIAL STOCKS AND FLOWS

190. *This* section deals with financial stocks and flows as defined within the general framework of the *1993 SNA*. Table 5.1 illustrates the recorded stocks and flows for a category of financial assets or liabilities. The total flow during the period is divided into three components: transactions, revaluations, and OCVA.

- *Revaluations*. Financial flows arising from changes in (1) the prices of financial assets and liabilities and/or (2) the exchange rates that affect the domestic currency values of assets and liabilities denominated in foreign currency.

Table 5.1. Stocks and Flows for a Financial Asset or Liability Category

Opening stock (beginning of period)		100
Transactions		+5
Revaluations		+1
Arising from price changes	-2	
Arising from exchange rate changes	+3	
Other changes in the volume of assets (OCVA)		-4
Closing stock (end of period)		102

191. The entries in Table 5.1 are described as follows:

- *Opening stock*. The value of the outstanding stock of a category of financial assets or liabilities at the beginning of an accounting period

- *Transactions*. Financial flows that arise, by mutual agreement between institutional units, from the creation, liquidation, or change in ownership of financial assets or liabilities. Changes in ownership occur through the sale, transfer, or other discharge of all rights, obligations, and risks associated with a financial asset or liability.

- *OCVA*. Financial flows that arise from asset and liability changes other than those arising from transactions and revaluations. Included are write-offs of claims,[24] reclassification of assets, monetization or demonetization of gold, allocation or cancellation of SDRs, and other events.

- *Closing Stock*. The value of the outstanding stock of a category of financial assets or liabilities at the end of an accounting period, which equals the value of

[24] Debt write-off is a unilateral cancellation of debt by the creditor and is recorded in the OCVA account. In contrast, debt forgiveness is a voluntary, mutual cancellation of a creditor's claim and a debtor's obligation, which is recorded as a transaction in the form of a capital transfer from the creditor to the debtor.

the opening stock plus flows arising from transactions, revaluations, and OCVA.

192. The methodology for the compilation of monetary and financial statistics has traditionally focused on stocks and period-to-period changes in stocks. This manual, however, recommends that data be compiled on stocks and on each of the three separate flow components. Availability of these detailed flow data facilitates more thorough analysis for monetary policy and other purposes, and fosters consistency between the monetary and financial statistics and the national accounts, balance of payments, and government finance statistics, which also contain detailed flow data.

193. The OCVA account records the changes in assets and liabilities between opening and closing balance sheets that are due neither to transactions between institutional units nor to changes in value. Separate entries for the financial flows arising from OCVA should be shown for all categories of assets and liabilities included in the monetary statistics, as described in Chapter 7, and in the financial statistics as described in Chapter 8 of this manual.

194. In the *1993 SNA*, the circumstances that result in entries in the OCVA account are grouped into nine categories, most of which have several subcategories. The following are the categories and subcategories that are relevant for the financial corporations sectors in most countries and, therefore, are directly relevant to the compilation of monetary and financial statistics.

- *Economic appearance of intangible nonproduced assets.* Financial corporations may hold patents and may show assets in the form of *purchased goodwill* on their balance sheets. When an enterprise is sold at a value that exceeds its net worth, this excess of purchase price over net worth is an asset designated as purchased goodwill. Goodwill that is not evidenced by a sale/purchase is not considered an economic asset and, therefore, does not enter the monetary and financial statistics. Purchased goodwill enters the OCVA account as an appearance of an intangible nonproduced asset. On the balance sheet, purchased goodwill is classified as a nonfinancial asset. Just as the appearance of a nonproduced asset is recorded as an OCVA, so is the disappearance through write-off, termination, or exhaustion.

- *Catastrophic losses.* The volume changes recorded as catastrophic losses in the OCVA account are the result of large-scale, discrete, and recognizable events that may destroy assets within any asset category. Such events include natural disasters, acts of war, and riots. Catastrophic losses most commonly apply to nonfinancial assets but may also apply to the loss of financial assets and, in particular, the loss of currency and other bearer-type financial assets.

- *Uncompensated seizures.* Governments or other institutional units may take possession of the assets of other institutional units without full compensation for reasons other than the nonpayment of taxes, fines, or similar levies. If the compensation for such seizures falls short of the market or fair value of the assets as shown on the balance sheet, the difference should be recorded in the OCVA account as a decrease in the assets of the institutional unit losing the assets. Foreclosures and repossession of goods by creditors are not treated as uncompensated seizures. They should be treated as transactions—i.e., disposals by debtors and acquisitions by creditors—because, by explicit or general understanding, the agreement between the debtor and creditor provided this avenue of recourse.

- *Other volume changes in nonfinancial assets not elsewhere classified.* This category covers entries in the OCVA account arising from the impact of unexpected events (other than catastrophes and uncompensated seizures) on the economic benefits to be derived from assets, especially the effects of events not anticipated when allowances were specified for the consumption of fixed capital. These events include unforeseen obsolescence of fixed assets, differences between allowances included in consumption of fixed assets not accounted for in consumption of fixed capital, abandonment of production facilities before being brought into economic use, exceptional losses in inventories (for example from fire damage or theft), and other events that are not transactions, that should not be attributed to holding gains or losses, and that do not fall into the other categories of events requiring entries in the OCVA account. The events include possession of assets that have lasted longer than expected, either economically or physically.

- *Other volume changes in financial assets and liabilities not elsewhere classified.* This category comprises the following events:

Allocation and cancellation of SDRs. A new allocation of SDRs by the IMF is recorded in the OCVA account, as is the cancellation of SDRs by the IMF.

Writing-off of bad debts by creditors. Recognition by a creditor that a financial claim can no longer be collected, due to bankruptcy or other factors, and the consequent removal of the claim from the balance sheet of the creditor should be accounted for here.

Counterpart of "other accounts receivable/payable" for defined benefit pension funds. For defined benefit pension plans, an entry in the OCVA account captures changes in the actuarially-determined liability that results from changes in the benefits structure—for example, changes in the benefits formula, reductions in the pensionable age, or funding for annual increases in the amount of the pensions.

Miscellaneous other volume changes in financial assets and liabilities. Entries in the OCVA account are made to explain any changes in financial assets and liabilities that are not transactions, are not attributed to revaluations (i.e., holding gains or losses), and are not changes in classification or the result of events in the other enumerated categories.

- *Changes in classification and structure.* This category comprises the following events:

Changes in sector classification and structure. Changes in the activities, legal status, and/or organizational structure of institutional units can result in their sectoral reclassification. Reclassifying an institutional unit from one sector to another transfers its entire balance sheet.[25] Entries in the OCVA account can also arise from changes in structure—for example, when a corporation disappears as an independent legal entity by virtue of its being absorbed by another corporation or when a corporation is split into more than one institutional unit.[26]

Changes in classification of assets and liabilities. Because of changes in its characteristics or in the purpose for which it is used, an asset or liability may be classified differently in the opening and closing balance sheets. For example, nonmonetary gold may become monetary gold that is used for international reserves purposes. Other examples are the reclassification of securities that have been converted to shares and other equity, under the conversion options in securities contracts, and loans that have been reclassified as securities other than shares, in accordance with the rule that loans that become negotiable (i.e., marketable) should be reclassified as securities other than shares.

[25]For example, if a financial corporation is newly authorized to accept liabilities included in the national definition of broad money, it would be reclassified from "other financial corporations" to "other depository corporations." Other examples of events that result in changes in sector (or subsector) classification are the privatization of public nonfinancial corporations; divestitures within an institutional unit, resulting in the creation of two or more units with separate financial accounts and operating in different sectors; and changes in the institutional units within an economy arising from changes in economic territory when countries are unified into a single nation or when one country is divided into two or more countries.

[26]When a corporation is absorbed by one or more other corporations, all claims and liabilities between the corporation that is absorbed and those that absorbed it disappear at the level of the data reported for macroeconomic statistics. Symmetrically, when a corporation is split into more than one institutional unit, new claims and liabilities between the new corporations may appear. The disappearance and appearance of the claims and liabilities between these institutional units lead to entries to the OCVA account.

195. It should be noted that the OCVA account is used to record changes in the *correct* classification of assets and liabilities, but not corrections of data that were misclassified in earlier periods. It is important to trace the origins of data misclassification and to correct all current and historical data on stocks and flows.

VALUATION OF FINANCIAL ASSETS AND LIABILITIES

GENERAL PRINCIPLES

196. The general recommendation in this manual is that valuations should be based on market prices or market-price equivalents of financial assets and liabilities. Valuation according to market-price equivalent is needed for valuing financial assets and liabilities that are not traded in financial markets or are traded only infrequently. For these assets and liabilities, it is necessary to estimate *fair values* that, in effect, are approximations to market prices. Methods for estimating fair values are described in paragraphs 219-224 of this chapter. Other valuation rules apply to assets in the form of loans and, in the context of the monetary statistics in Chapter 7, to liabilities in the form of shares and other equity. Descriptions of these rules for loans and shares and other equity appear later in this section.

197. Market prices are also applied to the valuation of *financial derivatives* that are market traded. However, financial derivatives for which market prices are unavailable are prevalent, and valuation of financial derivatives in general is a specialized topic. Therefore, the statistical treatment of financial derivatives is described in the annex to this chapter.

198. *Stocks* of financial assets and liabilities should be valued as if they were acquired in market transactions on the balance sheet reporting date. Many financial assets are traded in markets on a regular basis and therefore can be valued by directly using the price quotations from these markets. If the financial markets are closed on the balance sheet date, the market prices that should be used in the valuation are those that prevailed on the closest preceding date when the markets were open.

199. The *revaluation account*, as specified in the *1993 SNA* and in this manual, is used to show the holding gains or losses arising from changes in market values (or fair values) of stocks of financial assets and of outstanding liabilities. A *holding gain* occurs whenever an asset increases in value or a liability decreases in value; a *holding loss* occurs whenever an asset decreases in value or a liability increases in value.

200. A *nominal holding gain or loss* is the total change in value of a financial asset or liability resulting from a change in market price, fair value, and/or exchange rate. Nominal holding gains and losses on nonfinancial and financial assets and liabilities are included in the presentation of the monetary statistics under the heading of *valuation changes* in the sectoral balance sheets and surveys for the financial corporations sector in Chapter 7.[27]

201. The creditor and the debtor should record *transactions* in financial assets and liabilities at the prices at which they bought and sold the assets. Transactions for which payment is to be made in the form of financial assets, goods, or services should be valued at the market prices of the items to be used in payment. Service charges, fees, commissions, taxes, and similar payments are income flows and, therefore, are excluded from the valuation of financial transactions, as well as from the valuation of stocks.

202. In the reported data in some countries, the valuation of financial assets and liabilities may be based on commercial, supervisory, tax, or other accounting standards that do not fully reflect the market prices of the assets and liabilities. In such

[27]A *neutral holding gain or loss* is defined as a holding gain or loss that is in the same proportion as the change in the general price level during the holding period. A *real holding gain or loss* is defined as the amount of gain or loss after deducting the neutral holding gain or loss from the nominal gain or loss. A real holding gain occurs when the purchasing power of a financial asset increases during the holding period. Methods of estimating real holding gains and losses on nonfinancial and financial assets and liabilities are described in the 1993 *SNA* (paragraphs 12.63-1 15). All components of the monetary and financial statistics, as described in Chapters 7 and 8 of this manual, are in nominal terms. However, it is recognized that supplementary data on real holding gains and losses are useful for various types of analysis.

cases, the data should be adjusted to reflect, as closely as possible, the market value of the financial assets and liabilities.

INSTRUMENTS DENOMINATED IN FOREIGN CURRENCY

203. The standard unit of account for monetary and financial statistics is the national currency unit. Therefore, it is necessary to convert all foreign-currency-denominated stocks and flows into national currency amounts. Stocks and flows denominated in foreign currency should be converted to national currency values at the market exchange rate prevailing at the moment they are entered in the accounts, that is, the moment when the transaction or other flow occurs, or the point in time to which the balance sheet applies. The midpoint between the buying and selling rate of exchange should be used so that any service charge is excluded.

204. Institutional units sometimes apply exchange rates that differ from market rates in converting stocks and flows into national currency units. The conversion to national currency units is sometimes based on a single *official exchange rate* or on an exchange rate from an *official multiple exchange rate system.*[28] The data should be adjusted to a market rate basis, to the extent possible.

LOANS

205. Loans are held from the time when they are contracted until the time when they mature or are liquidated prior to maturity—for example, because of early repayment or default by the debtor. The value of a domestic currency loan should be the amount of the creditor's outstanding claim (equal to the debtor's obligation), which comprises the outstanding principal amount plus any accrued interest (i.e., interest earned but not yet due for payment). Such valuation is herein referred to as the *book value* of a loan. Loans denominated in foreign currency should be recorded at their book values when expressed in the foreign currency and, for conversion to domestic currency units, should be valued on the basis of the market exchange rates that prevailed on the transaction or balance sheet date.

206. This manual recommends that the entire loan portfolio be valued at book value in presenting the loan data in the sectoral balance sheets described in Chapter 7. In particular, the loan valuation is not adjusted for expected losses. The value of a loan portfolio should be adjusted downward only when (1) loans are actually written off as uncollectible or (2) when the outstanding amount of the loan has been reduced through a formal debt reorganization. This statistical treatment reflects common accounting practice whereby expected loan losses are taken into account through the use of provisions for loan losses and loan losses are treated as an expense in calculating the profits and losses of lending institutions.

207. Law or regulation may require the provision of data on the basis of the expected realizable value of loans—defined as the book value of the loans *less* the expected loan losses arising from borrowers defaulting on financial obligations under the loan contracts. Even if not required by law or regulation, data on the expected realizable value of the loan portfolio are useful—in particular, for supervisory purposes at the macroeconomic level. Therefore, this manual recommends that data on expected loan losses (disaggregated by debtor sector) be shown as memorandum items accompanying the sectoral balance sheets described in Chapter 7. These data can be used to obtain the expected realizable value of loans, by deducting the expected loan losses (whether or not covered by loan loss provisions) from the book values of the loans.

208. Loans that have become negotiable (i.e., marketable) in secondary markets should be reclassified under securities other than shares, and should be valued on the basis of market prices or fair values in the same manner as other types of securities other than shares.

[28]*Market exchange rate* is defined as an exchange rate determined by market forces, whereas an official exchange *rate* is an exchange rate determined on an administered basis by the national authorities. Official exchange rates may be administered so as to keep them closely aligned with market exchange rates or, at the other extreme, may differ substantially from market exchange rates for extended periods of time. Official multiple exchange rate systems are schedules of official exchanges rates, used to apply separate exchange rates to various categories of transactions and/or transactors.

DEBT REORGANIZATIONS

209. *Debt rescheduling* refers to the formal deferment of debt service payments (i.e., interest and/or principal payments) and the creation of a new repayment schedule, usually including a new maturity, for an existing debt obligation. Rescheduling should not affect the valuation of a loan that has been properly valued, because the outstanding amount (i.e., book value) of the loan is the same before and after rescheduling; only the schedule for future interest and principal payments has been affected. However, the market value or fair value of a security would usually be affected by rescheduling, because lengthening of maturity and postponement of debt servicing would be expected to reduce the discounted present value of the security.

210. *Debt refinancing* refers to the conversion of a debt obligation—a loan or a security other than shares—into a new debt instrument. Holding gain or loss from the difference between the values of the original and of the new debt instruments should be recorded in the revaluation account.

211. *Debt assumption* is a special form of debt refinancing, involving three parties—the creditor, the original debtor, and a new debtor who assumes the debt obligation. A debt assumption involves two simultaneous transactions; the first transaction cancels the original debtor's obligation, and the second transaction creates a new debt contract between the creditor and the new debtor, or assumer. The first transaction is classified as a capital transfer (as in the case of debt forgiveness), and the second transaction involves the creditor's acquisition of the new debt instrument issued by the assumer. Any write-down of asset value by the creditor is recorded in the revaluation account.

212. *Debt swaps*[29] refer to the exchange of debt, in the form of a loan or, more typically, of securities other than shares, for a new debt contract (i.e., *debt-debt swap*) or the exchange of debt for equity shares (i.e., *debt-equity swap*). Debt swaps often call for writing down, or discounting, the value of the original debt instrument before the conversion to new debt or equity. Any holding loss from writing down the value of the original debt is recorded in the revaluation account.

SHARES AND OTHER EQUITY

213. For the financial statistics described in Chapter 8, the values of shares and other equity on both sides of the balance sheet are based on market prices or fair values. This treatment is in accordance with the valuation methods in the *1993 SNA*. For the monetary statistics described in Chapter 7, asset holdings in the form of shares and other equity are valued at market prices or fair values. However, most components of liabilities in the form of shares and other equity should be valued at book value for the monetary statistics.

214. For monetary and other policy purposes, it is highly desirable to show, in the monetary statistics, data on the separate components (as described in Chapter 4) of shares and other equity on the liability side of the balance sheets of financial corporations. These data are particularly important for analyzing the soundness of financial systems. Even though shares and other equity at the total level can be valued at market prices or fair values, this approach is not possible for valuing all individual components, given that no nonarbitrary method exists for market valuation of funds contributed by owners, retained earnings, and general and special reserves. Therefore, this manual recommends that the following valuation principles be used for the components of shares and other equity on the liability side of the sectoral balance sheets described in Chapter 7:

- *Funds contributed by owners* should be book valued—that is, valued as the nominal amount of the proceeds from the initial and any subsequent issuances of ownership shares.

[29] A debt swap should be distinguished from the interest rate and currency swap contracts that are financial derivatives. These derivative contracts involve the parties' swapping of interest and, in some cases, principal payments on underlying financial instruments, whereas the debt swaps covered in this section involve the swapping of the underlying instruments themselves. A debt-debt swap is distinguished from a debt assumption; a debt-debt swap involves two parties, whereas a debt assumption also involves a third party—the assumer of the debt.

- *Retained earnings* should be valued as the nominal amount of earnings that have been retained.

- *General and special reserves* should be valued as the nominal amount of such reserves.

- *SDR allocations* should be valued on the basis of the market exchange rates as of the transaction or balance sheet date.

- *Valuation adjustment* is market valued by definition, given that the valuation adjustment in specifically designed as the net counterpart to changes in the market or fair values of assets and liabilities on the balance sheet.[30]

INDEXED INTEREST AND PRINCIPAL

215. Interest and principal payments for some deposits, loans, and securities are indexed to changes in prices. The indexation links the amount of interest and/or principal to changes in an index of the general price level, the price of a specific commodity, share prices, or exchange rates.

216. This manual and the *1993 SNA* recommend treating all changes in the amounts of interest and principal arising from indexation as additional interest. It recommends treating amounts arising from indexation of the principal as interest that is reinvested in the financial asset. That is, the indexation of principal results in a property income flow accompanied by a *financial transaction*—in other words, the reinvestment of the income flow—that augments the outstanding principal. In particular, the increase in principal arising from the indexation should be treated as a transaction rather than as a revaluation.

GOLD

217. Monetary gold should be classified as a financial asset, and nonmonetary gold should be classified as a nonfinancial asset. Both monetary and nonmonetary gold should be valued on the basis of the market price of gold, and the revaluation account should reflect changes in the value of monetary and nonmonetary gold.

218. Valuation of gold at prices other than market prices is the national practice in some countries. Supplementary data on the physical quantity of monetary gold should be provided to the compilers of monetary statistics so they can determine the gold prices used in the national valuation and can adjust the valuation, if necessary, to a market-price basis.

FAIR VALUES

219. The *fair value* of a financial asset or liability refers to the value that approximates the value that would arise from a market transaction between unrelated parties. Fair values can be used in most situations in which market-price data are unavailable.

220. Two general methods for establishing fair values involve use of either:

- Market prices of financial assets and liabilities that are market traded but otherwise similar to the nontraded financial assets and liabilities that are being fair valued; or

- Discounted present values of future cash flows from nontraded financial assets and liabilities.

Other methods are used to establish fair values for some types of financial derivatives—particularly option-type contracts—when market price data are unavailable. The annex on financial derivatives that follows this chapter describes an estimation of fair values based on option pricing models.

221. Directly basing fair value on the market price of a similar, but market-traded, financial instrument can establish fair values for some nontraded financial assets and liabilities. For example, the fair-value price of a nontraded bond with five-year remaining maturity might be given

[30]Changes in the value of SDR allocations are included in the revaluation account.

by the market price of a publicly traded five-year bond having comparable default risk. In other cases, it may be appropriate to use the market price of a similar financial instrument, but with some adjustment in the fair value to account for differences in liquidity and/or risk level between the traded and nontraded instruments. For example, the fair value of unquoted equity shares may be based on the market price of equity shares in some other corporation that has traded shares. However, the fair value may need to be adjusted for differences in scale of operations, number of outstanding shares, and other factors that are perceived as differentiating the values of the nontraded and traded shares.

222. In some cases, the financial asset or liability may possess some characteristics of each of several other financial instruments, even though its characteristics are not generally similar to any one of these instruments. In such cases, information on the market prices and other characteristics (for example, type of instrument, issuing sector, maturity, credit rating, etc.) of the traded instruments can be used in estimating the fair value of the nontraded instrument.

223. The second general method is to value financial assets and liabilities by *basing fair values on the present, or time discounted, value of future cash flows.* This is a well-established approach to valuation in both theory and practice. The fair value of a financial asset or liability is calculated as the sum of the present values of all future cash flows, as shown in the following equation:

$$\text{Fair value} = \frac{\sum_{t=1}^{n} (Cash flow)_t}{(1+i)^t},$$

where $(Cash flow)_t$ denotes the cash flow in a future period (t), n denotes the number of future periods for which cash flows are expected, and i denotes the discount rate that is applied to discount the future cash flow in period t.[31]

[31]A single discount rate, i, is usually used to discount the cash flow in all future periods. In some circumstances, using different discount rates in the various future periods may be warranted.

224. The method is relatively easy to apply in valuing any financial asset or liability if (1) the future cash flows are known with certainty or can be estimated and (2) a discount rate or series of discount rates can be estimated. Market interest rates, current or expected, are often used as the discount rates, based on the assumption that these market interest rates are most representative of the cost of acquiring funds in the financial markets.

TIME OF RECORDING

Simultaneous Recording of Transactions

225. This manual and the *1993 SNA* recommend recording transactions at the time of the change in ownership of a financial asset (i.e., when all rights, obligations, and risks are discharged). Therefore, in principle, the two parties to a transaction should record it simultaneously.

226. In practice, it is not always possible to determine the exact time when the ownership has changed, leading the parties to record the transaction at different times. In particular, differences may arise from delays in mail delivery or differences in the time zones where the parties operate, as well as from differences in the time-of-recording conventions of the parties. Adjustments may be needed so that the same transaction date is applied to the data for both parties.

Accrual Accounting

227. Accrued interest on deposits, loans, and securities other than shares should be incorporated into the outstanding amount of the financial asset or liability, rather than being treated as part of other accounts receivable/payable.

228. For some financial instruments, the debtor does not make any payments to the creditor until the financial instrument matures, at which time a single payment discharges the debtor's liability; the payment covers the amount of funds originally provided by the creditor and the interest accumulated over the entire life of the financial instrument. The interest accruing in each period prior to maturity should be recorded as a financial transaction that represents a further acquisition of the financial asset by the creditor and an equal incurrence of a liability by the debtor.

229. Bills and similar short-term securities are issued on a discount basis—that is, at values below the face, or redemption, values that incorporate all interest payments and principal repayment for the securities. The amount recorded for such a security increases over time to reflect the interest accruing as it approaches maturity. The increase in amount is treated as a transaction that augments the principal, rather than as a price change that would constitute a holding gain.

230. Bonds and debentures are long-term securities that give the holder the unconditional right to (1) fixed or contractually determined coupon payments over the life of the security and/or (2) a sum that is due at maturity. For many bonds, both types of cash flows apply. For zero coupon bonds, however, the sum due at maturity constitutes the entire interest payment and principal repayment, as in the case of short-term securities issued on a discount basis. For deep-discount bonds, the amount of coupon payment in each period is relatively small, and the sum due at maturity includes most of the interest. A bond not issued as a zero coupon or deep-discount instrument may be issued at a value below the face value (i.e., at a discount) or at a value above the redemption value (i.e., at a premium). Similarly, bonds are traded in the secondary market at discounts or premiums that are dependent on the extent to which market interest rates have risen or declined, respectively, in the period since the bonds were issued.

231. One method for calculating the amount of accrued interest is relatively easy to apply, especially in the case of nontraded securities.

Let L denote the issue price of the security, representing the amount of funds that the purchaser (creditor) provides to the issuer (debtor) and measuring the original value of the liability incurred by the issuer. Let F denote the face value of the security, representing the sum paid to the creditor when it matures. The difference, $F - L$, is the discount on the security that represents interest accruing over the life of the security.

For securities sold on a discount basis, $F - L$ represents the total accrued interest to be distributed equally over the periods prior to maturity. For securities that include coupon payments, the accrued interest comprises the part of the discount (i.e., $F - L$) that has been apportioned to the period plus the accrued portion of the next coupon payment.[32] This method for calculating the amount of accrued interest is called the *debtor approach*, but it can be applied relatively easily by both the debtor and creditor in recording the accrued interest for a nontraded security.

232. Calculation of accrued interest for traded securities is less straightforward, and a consensus has yet to be reached on the appropriate international guidelines in this area. One method is to apply the debtor approach, in the same manner as described above. However, as described below, application of the debtor approach may be difficult for holders of securities purchased in the secondary market. An alternative method—called the *creditor approach*—is based on the calculation of accrued interest from the perspective of a party who has purchased securities in the secondary market.

Let P denote the price paid for the securities in the secondary market. P (rather than L as described above) represents the amount of funds provided from the secondary market purchaser's perspective, and $F - P$ is viewed as the discount that is to be apportioned as accrued interest.

233. For securities that are traded on a regular basis, the market price of the securities may change in each period, and, therefore, the amount

[32] For securities sold for more than face value, the premium ($L - F$) would be apportioned—in effect, as "negative accrued interest"—over the remaining periods to maturity.

for the discount ($F - P$) to be apportioned as accrued interest may change in each period. If the creditor approach were to be applied by both the debtor and creditor, both parties would need to obtain market quotations for the security prices in each period for calculating the discount ($F - P$) and apportioning it to accrued interest.

234. A major criticism of the debtor approach to the calculation of accrued interest is that it uses historical cost concepts rather than market prices, which reflect current opportunity costs. Supporters of the debtor approach, however, argue that interest should be viewed as a historical concept, based on the terms of the agreement at the time of the security issuance, rather than being viewed as the current market return, or yield, on the security. In particular, the structure of the *1993 SNA* does not allow changes in value that arise from market price changes to be incorporated into transactions (i.e., recordings of accrued interest), as implied by the creditor approach.

235. Practical considerations are also important. The secondary-market purchasers' lack of information on the amounts of funds provided to the debtors is an obstacle to the application of the debtor approach by such purchasers. It should be emphasized, however, that the debtor and creditor approaches converge as the changes in market price during the life of a security become smaller. In the absence of major shifts in market interest rates and security prices, application of the debtor and the creditor approach, respectively, will lead to relatively small differences in the amounts of accrued interest recorded by the two parties. However, the differences may be pronounced when market interest rates and security prices are subject to large movements.

236. After consensus has been reached, this manual will be updated to incorporate the international guidelines agreed upon for the calculation and recording of accrued interest on securities.

237. It should be noted that the valuation and recording of securities acquisitions and dispositions and the stock data for securities do not depend on the method used for the calculation and recording of accrued interest. Acquisitions and disposals and the stock data for securities other than shares are recorded at market prices or fair values. The treatment of accrued interest only affects the extent to which financial flows are allocated to accrued interest (i.e., to transactions) and to holding gains or losses (i.e., to changes in values).

238. An *interest arrear*—that is, interest that is overdue for payment—is already included in the relevant asset or liability category in the sectoral balance sheet described in Chapter 7, if the interest has already been recorded on an accrual basis. In other words, the interest shifts from being an accrual to an arrear at the time that it changes from an amount earned but not yet due (i.e., accrued) to an amount overdue (i.e., in arrears).

239. Data on accrued interest on loans and interest arrears on loans should be shown as memorandum items accompanying the sectoral balance sheets described in Chapter 7. Many countries mandate that scheduled interest payments that have been in arrears for a specified period—for example, 60 days or longer—must be excluded from the values of the loan portfolios of lending institutions. Even if not mandated by law or regulation, data on interest arrears on loans are useful for supervisory purposes and macroeconomic analysis. The memorandum items accompanying the sectoral balance sheets in Chapter 7 include separate categories for interest arrears on domestic loans by sector and for interest arrears on loans to nonresidents. These data can be used to calculate the value of loans, excluding interest arrears, for each sectoral category of debtor.

AGGREGATION, CONSOLIDATION, AND NETTING

AGGREGATION

240. *Aggregation* refers to the summing of stock or flow data across all institutional units within a sector or subsector, or all assets or liabilities within a particular category. Aggregation of data across the institutional units within a sector or subsector preserves the data on claims and liabilities between the units in that sector or subsector. For example, the sectoral balance sheet for other depository corporations, as described in Chapter 7, shows separate categories of data for other depository corporations' claims on and liabilities to each other, as well as categories for their claims on and liabilities to other sectors and subsectors.

241. For sectors and subsectors, the data on financial assets and liabilities are aggregated into major categories—for example, loans classified by debtor sector and deposits classified by creditor sector. Further aggregation is used to combine major categories of financial assets or liabilities, for example when the major categories of monetary assets are combined to form the monetary aggregates or when major categories of claims on various sectors are added together to compile credit aggregates.

CONSOLIDATION

242. *Consolidation* refers to the elimination of stocks and flows that occur between institutional units when the latter are grouped. For individual institutional units, financial flows and stock positions between institutional units, but not within an institutional unit, should be reported for the monetary and financial statistics. In particular, an institutional unit consisting of a headquarters office and branch offices should report stock and flow data consolidated across all offices of the institutional unit.

243. For sectors and subsectors, flows between constituent units should not be consolidated, as a matter of principle, at the elemental level of data reporting and compilation. Therefore, the sectoral balance sheets for the subsectors of the financial corporations sector, in Chapter 7, are based on aggregated rather than consolidated data. However, for analytical purposes, the data in the sectoral balance sheets are consolidated to obtain the surveys of financial corporation subsectors and the *FCS*, as shown in Chapter 7.

244. For example, the *DCS* in Chapter 7 is obtained by canceling out all financial flows and outstanding claims and liabilities between all depository corporations, while preserving the presentation of data on all stocks and flows that are claims on and liabilities to (1) financial corporations subsectors other than the depository corporations subsector, (2) other domestic sectors, and (3) nonresidents. The *DCS* is compiled from the data in the *CBS* and the *ODCS*, which are compiled from the sectoral balance sheets for the central bank and the other depository corporations, respectively. To facilitate data consolidation at the survey level, the sectoral balance sheets and surveys underlying the *DCS* must contain comprehensive data on all financial flows between depository corporations and the financial assets and liabilities that are outstanding between them.

NETTING

245. The general principle in this manual and the *1993 SNA* is that data should be collected and compiled on a gross basis. In particular, claims on a particular transactor or group of transactors should not be netted against the liabilities to that transactor or group. For example, a depository corporation might have an outstanding loan to a customer who is also one of its depositors. The financial corporation's asset (i.e., the loan claim) should not be netted against the liability (i.e., the deposit of the borrower).

246. However, netting in the sense of recording transactions on a purchases-*less*-sales basis (i.e., net acquisition of a specific category of financial assets or liabilities) should be used. For example, deposit transactions in a particular category should be defined as the amount of new deposits *less* withdrawals during the period. Similarly, securities transactions are defined as the amount of securities purchased *less* the amount redeemed or sold, loan transactions are defined as the amount of new loans *less* loans repayments, and so forth.[33]

247. In exceptional circumstances, it may be necessary to compile and present data on a net

[33]In this context, the amount of "securities purchased" and "loans extended" includes accrued interest and principal accretion that results from indexation.

basis, simply because the data are not available on a gross basis. The need to resort to such netting is expected to be relatively rare for most categories of assets and liabilities in the financial corporations sectors of most countries.

248. It is important to distinguish between compilation and presentation of data on a net basis. Some categories of data in the surveys described in Chapter 7 are presented on a net basis, because of the analytical usefulness of the data in such form. The general principle for such presentation is that, whenever the data are presented on a net basis, the underlying data on a gross basis should also be shown. For example, the *DCS* in Chapter 7 shows stock and flow data for net foreign assets and net claims on central government. However, it also shows the stock and flow data for the separate asset and liability components that are being netted. The *DCS* shows "claims on nonresidents" and "*less*: liabilities to nonresidents" as the separate components of net foreign assets. Similarly, it shows "claims on central government" and "less: liabilities to central government" as separate components of net claims on central government.

ANNEX 5.1. STATISTICAL TREATMENT OF FINANCIAL DERIVATIVES[34]

Concept and Coverage

249. A financial derivative contract is a *financial instrument that is linked to another specific financial instrument or indicator or commodity and through which specific financial risks (such as interest rate risk, foreign exchange risk, equity and commodity price risks, credit risk, etc.) can, in their own right, be traded in financial markets.* Transactions in financial derivatives are treated as separate transactions rather than as integral parts of the values of the underlying transactions to which they are linked. The value of a financial derivative comes from the price of an underlying item such as an asset or index. No principal amount that must be repaid is advanced, and no investment income accrues. Financial derivatives are used for a number of purposes—risk management, hedging, arbitrage between markets, and speculation, for example.

250. Financial derivatives enable parties to trade specific financial risks to other entities that are more willing, or better suited, to take or manage these risks and that typically, but not always, do so without trading in primary assets or commodities. The risk embodied in a derivative contract can be traded either by trading the contract itself, as with options, or by creating a new contract embodying risk characteristics that match, in a countervailing manner, those of the existing contract. The latter practice, which is termed *offsetability*,[35] occurs in forward markets. *Offsetability* means that it is often possible to eliminate the risk associated with a derivative by creating a new but "reverse" contract having characteristics that countervail the risk of the first derivative. Buying the new derivative is the functional equivalent of selling the first derivative, because the result is the elimination of risk. The ability to countervail the risk in the market is therefore considered the equivalent of *tradability* in demonstrating value. The outlay that would be required to replace the existing derivative contract represents its value; actual offsetting is not required to demonstrate value.

251. There are two broad types of fmancial derivatives. In a *forward contract*, which is unconditional, *two counterparties agree to exchange a specified quantity of an underlying item (real or financial) at an agreed-upon price (the strike price) on a specified date.* In an *option contract, the purchaser acquires from the seller a right to buy or sell (depending on whether the option is a call or a put) a specified underlying item at a strike price on or before a specified date.* Unlike debt instruments, financial derivatives do not accrue investment income; nor are principal amounts advanced that must be repaid.

252. The value of a fmancial derivative comes from the price of the underlying item (the *reference price).* Because a future reference price is not known beforehand, the value of a financial derivative at maturity can only be anticipated or estimated. A reference price may be related to a commodity, a financial instrument, an interest rate, an exchange rate, another derivative, a spread between two prices, or an index or basket of prices. An observable reference price for the underlying item is essential for calculating the value of any financial derivative. If there is no observable prevailing market price for the underlying item, it cannot be regarded as a financial asset. Transactions in financial derivatives are treated as separate transactions rather than as integral parts of the values of the underlying transactions to which they are linked. Embedded derivatives, however, are not identified and valued

[34]This annex draws on *Financial Derivatives--A Supplement to the Fifth Edition (1993) of the Balance of Payments Manual* (IMF, Washington, DC, 2000).

[35]*Offsetability* should not be confused with an *offset*, which is the legal right of a debtor to net its claims against the same counterparty. It is recommended that positions be recorded on a gross basis whenever possible.

separately from primary instruments.

253. Financial derivative contracts are usually settled by net payments of cash. Exchange-traded contracts, such as commodity futures, are often settled before maturity. Cash settlement is a logical consequence of the use of financial derivatives to trade risks independently of the ownership of underlying items. However, some financial derivative contracts, particularly those involving foreign currency, are settled by deliveries of the underlying items.

254. For monetary and financial statistics purposes, the following types of financial instruments are not financial derivatives:

- A *fixed-price contract for goods and services* is not a financial derivative unless the contract is standardized so that the market risk therein can be traded in financial markets in its own right.

- *Insurance* is not a financial derivative. Insurance contracts provide individual institutional units with financial protection against the consequences of the occurrence of specified events. (In many instances, the value of this financial protection cannot be expressed in terms of market prices.) Insurance is a form of financial intermediation through which funds are collected from policyholders and invested in financial or other assets. These assets are held as technical reserves to meet future claims arising from the occurrence of events specified in insurance policies. That is, insurance is used to manage event risk primarily by the pooling, not the trading, of risk.

- *Contingencies*, such as guarantees and letters of credit, are not financial derivatives. The principal characteristic of a contingency is that one or more conditions must be fulfilled before a financial transaction takes place. Contingencies are typically not instruments that facilitate the trading of specific financial risks.

- *An embedded derivative (a derivative feature that is inserted in a standard financial instrument and is inseparable from the instrument)* is not considered a financial derivative for monetary and financial statistics purposes. If a primary instrument such as a security or loan contains an embedded derivative, the instrument is valued and classified according to its primary characteristics—even though the value of that security or loan may well differ from the values of comparable securities and loans because of the embedded derivative. Examples are bonds that are convertible into shares and securities with options for repayment of principal in currencies that differ from those in which the securities were issued.

255. In addition, timing delays that arise in the normal course of business and that may entail exposure to price movements do not, for monetary and financial statistics purposes, give rise to transactions and positions in financial derivatives. Timing delays include normal settlement periods for spot transactions in financial markets.

Forwards

256. In a *forward contract, the counterparties agree to exchange, on a specified date, a specified quantity of an underlying item (real or financial) at an agreed-upon contract price (the strike price).* This class of financial derivatives includes *futures* and *swaps*. Futures are *forward contracts traded on organized exchanges.* Futures and other forward contracts are typically, but not always, settled by payments of cash or provision of other financial instruments rather than by actual deliveries of underlying items. Futures are valued and traded separately from underlying items. If a forward contract is a *swap contract, the counterparties exchange, in accordance with prearranged terms, cash flows based on the reference prices of the underlying items.* Forward rate agreements and forward foreign exchange contracts are common types of forward contracts. Interest rate and cross-currency interest rate swaps are common types of swap contracts.

257. At the inception of a forward contract, the parties involved exchange risk exposures of equal market value. Both parties are potential debtors, but a debtor/creditor relationship can be established only after the contract goes into effect. Thus, at inception, a contract normally has zero value. However, as the price of the underlying item changes during the life of the forward contract, the market value of each party's risk exposure will differ from the market value of zero at the inception of the contract. When a change in the price of the underlying item occurs, an asset (creditor) position is created for one party, and a liability (debtor) position is created for the other. The debtor/creditor relationship may change, in both magnitude and direction, during the life of a forward contract.

Options

258. *The purchaser of an option contract pays a premium to the writer of the option. In return, the buyer acquires the right but not the obligation to buy (call option) or sell (put option) a specified underlying item (real or financial) at an agreed-upon contract price (the strike price) on or before a specified date.* A major difference between forward and option contracts is that either party to a forward contract is a potential debtor, whereas the buyer of an option acquires an asset, and the option writer incurs a liability. However, an option may expire without worth; it is exercised only if settling the contract is advantageous to the buyer. The option buyer may make gains of unlimited size, and the option writer may experience losses of unlimited size.

259. Options are written on a wide variety of underlying items—such as equities, commodities, currencies, and interest rates (including caps, collars, and floors).[36] Options are also written on futures, swaps (known as *swaptions*), caps (known as *captions*), and other instruments.

260. In organized markets, option contracts are usually settled in cash, but some types of option contracts are normally settled by purchases of underlying assets. For instance, a warrant is a financial contract that gives the holder the right to buy, under specified terms, a certain number or amount of the underlying asset (such as equity shares). If a warrant is exercised, the underlying asset is usually delivered. Warrants can be traded separately from the underlying assets to which they are linked.

RECORDING OF FINANCIAL DERIVATIVE TRANSACTIONS AND POSITIONS

261. The statistical treatment of financial derivatives in monetary and financial statistics requires compilers and statisticians to

- recognize the exchange of claims and obligations at the inception of a derivative contract as a true financial transaction creating asset and liability positions that normally have, at inception, zero value if the instrument is a forward and value equal to the premium if the instrument is an option;

- treat any changes in the values of derivatives as holding gains or losses;

- record secondary market transactions in marketable derivatives, such as options, as financial transactions;

- record any payments made at settlement as transactions in financial derivative assets or liabilities (that is, no income arises from settlements of financial derivatives);

- record, in the sectoral balance sheets, outstanding values of financial derivatives at market prices.

[36] A cap imposes an upper limit; a floor sets a lower limit; and a collar maintains upper and lower bounds on floating-rate interest payments or receipts.

Valuation of Positions

262. A key characteristic of most derivative contracts is that the counterparties make commitments to transact, in the future and at agreed-upon prices, in underlying items. The present value (or market price) of a financial derivative is derived from the difference between the agreed-upon contract price of an underlying item and the prevailing market price (or the market price expected to prevail), appropriately discounted, of that item. For options, whether they are traded on an exchange or not, the prices are directly observable, because option purchasers acquire assets (the rights to buy or sell specified underlying items), and the prices of those assets must be established. The price of an option depends on the potential price volatility of the underlying instrument, the time to maturity, interest rates, and the difference between the strike price and the market price of the underlying item. The value of a swap contract based on a notional principal amount is derived from the difference, appropriately discounted, between expected gross receipts and gross payments.

263. Financial derivatives are valued at market prices prevailing on balance sheet recording dates. Price changes occurring between recording dates are classified as revaluation gains or losses. If market price data are unavailable, fair value methods (such as option models or discounted present values) may be used to value derivatives.

Payments at Inception

264. The purchaser of an option pays a premium to the seller. The buyer records the full price of the premium as the acquisition of a financial asset, and the seller records it as the incurrence of a liability. Sometimes a premium is paid after the inception of a derivative contract. Then the option purchaser records the value of the premium payment as an asset that was financed by a loan from the option writer at the time the derivative was purchased.

265. The creation of a forward contract does not normally require the recording of a transaction in a financial derivative, because risk exposures of equal value are usually being exchanged. That is, there is zero exposure and zero value for both sides.

266. Commissions and fees paid—at inception or during the lives of derivatives—to banks, brokers, and dealers are classified as payments for services. These payments are for services provided within current periods and are independent of asset and liability relationships created by the derivatives.

Sales of Derivatives in Secondary Markets

267. Sales of derivatives in secondary markets—whether the markets are exchanges or over-the-counter—are valued at market prices and recorded in monetary and financial statistics as transactions in financial derivatives.

Settlement Payments

268. *Net settlement payments* are *financial transactions that are similar to transactions at the maturities of other financial instruments.* At settlement, either a cash payment is made, or an underlying item is delivered.

- When a financial derivative is settled in cash, a transaction equal to the cash value of the settlement is recorded for the derivative. No transaction in the underlying item is recorded. In most instances, when a cash settlement payment is received, a reduction in a financial derivative asset is recorded. When a cash settlement payment is made, a reduction of a financial derivative liability is recorded. However, in some circumstances, this practice does not hold. When a contract (such as an interest rate swap) calls for ongoing settlement and a cash settlement is received, there is an increase in a financial derivative liability if, at the time of the settlement payment, the contract is in a liability position. The reverse also applies; that is, when a contract calls for ongoing settlement, a cash payment is recorded as an increase in an asset if, at the time of the settlement, the contract is in an asset position. If compilers are unable to implement this approach because of market practice, it is recommended that all cash settlement receipts be recorded as reductions in financial assets and all cash settlement payments be recorded as decreases in liabilities.

- When an underlying instrument is delivered, two transactions occur, and both are recorded. The transaction in the underlying item is recorded at the market price prevailing on the day of the transaction. The transaction in the derivative is recorded as the difference, multiplied by the quantity, between the prevailing market price for the underlying item and the strike price specified in the derivative contract.

- When more than one contract is settled—in cash, at the same time, and with the same counterparty—some of the contracts being settled are in asset positions and some are in liability positions. In this situation, it is recommended that the transactions be recorded on a *gross basis*; that is, the transactions in assets are recorded separately from those in liabilities. Recording the transactions on a gross basis is preferred to recording them on a *net basis*; that is, after the sum of the liability flows is subtracted from the sum of the asset flows, the result is recorded as a single amount.[37] However, for practical reasons, there may be no alternative to net recording.

MARGINS

269. Margins are payments of cash or deposits of collateral that cover actual or potential obligations incurred through financial derivatives—especially futures or exchange-traded options. The required provision of margin reflects market concern over counterparty risk and is standard in financial derivative markets.

270. *Repayable margin* consists of *cash or other collateral deposited to protect a counterparty against default risk.* Ownership of the margin remains with the unit that deposited it. Although its use may be restricted, a margin is classified as *repayable* if the depositor retains the risks and rewards of ownership—such as the receipt of income or exposure to holding gains and losses. At settlement, a repayable margin (or the amount of repayable margin in excess of any liability owed on the derivative) is returned to the depositor. In organized markets, repayable margin is sometimes known as *initial margin.*

271. Repayable margin payments of cash are transactions in *deposits*, not transactions in financial derivatives. A depositor has a claim on an exchange, brokerage, or other institution holding the deposit. Some countries may prefer to classify repayable margin deposits within *other accounts receivable/payable* in order to reserve the term *deposits* for monetary aggregates. When a repayable margin deposit is made in a noncash asset (such as securities), no transaction is recorded, because no change in ownership has occurred. The entity (the issuer of the security) on which the depositor has a claim is unchanged.

272. The payment of *nonrepayable margin* is a transaction in a derivative; the payment is made to reduce a financial liability created through a derivative. In organized exchanges, nonrepayable margin (sometimes known as *variation margin*) is paid daily to meet liabilities recorded as a consequence of the daily marking of derivatives to market value. The entity that pays nonrepayable margin no longer retains ownership of the margin and relinquishes the right to the risks and rewards of ownership. A payment of nonrepayable margin is recorded as a reduction in a financial derivative liability; the contra-entry is a reduction (probably in currency and deposits) in a financial asset. The receipt of nonrepayable margin is recorded as a reduction in a financial derivative asset; the contra-entry is

[37] However, the net basis is recommended for transactions in financial derivatives classified as reserve assets.

an increase (probably in currency and deposits) in a financial asset.

273. Arrangements for margining can be complex, and procedures differ among countries. In some countries, repayable and nonrepayable margins are recorded in a single account, and it may be difficult to distinguish between the two types. The actual institutional arrangements (such as the identities of units making payments and types of instruments used) must be reviewed. The key test is whether the margin is repayable or whether payment of the margin represents an effective transfer of ownership between counterparties to the financial derivative contract.

TREATMENT OF SELECTED FINANCIAL DERIVATIVES

Specific Interest Rate Contracts

274. An *interest rate swap* contract consists of *a contract to exchange, in one currency and during a specified period of time, cash flows related to interest payments or receipts on a notional amount of principal that is never exchanged*. Such swaps are often settled through net cash payments from one of the counterparties to another. A *forward rate agreement* (FRA) is *a contract in which the counterparties agree on an interest rate to be paid, at a specified settlement date, on a notional amount of principal that is never exchanged*. FRAs are settled by net cash payments; that is, the difference between the rate agreed upon and the prevailing market rate at the time of settlement is recorded as a transaction in the sectoral balance sheet. The buyer of an FRA receives payment from the seller if the prevailing rate exceeds the rate agreed upon. The seller receives payment from the buyer if the prevailing rate is lower than the rate agreed upon. The existence of active financial markets in these contracts results in holding gains and losses. The creation of interest rate swaps and FRA contracts normally requires no entries in the sectoral balance sheet, because there are no exchanges of value at the inception of these contracts. Net cash settlement payments for interest rate swaps and FRAs are classified as transactions in financial derivatives. Interest rate swaps usually involve ongoing settlements during the lives of the contracts; FRAs are usually settled at contract maturity.

Specific Foreign Currency Contracts

275. A *foreign exchange swap* contract consists of *a spot sale/purchase of currencies and a simultaneous commitment to a forward purchase/sale of the same currencies*. A *forward foreign exchange* contract consists of *a commitment to transact, at a designated future date and agreed-upon exchange rate, in a specified amount of specified foreign currencies*. A *cross-currency interest rate swap* contract (also known as a *currency swap*) consists of *an exchange of cash flows related to interest payments and, at the end of the contract, an exchange of principal amounts in specified currencies at a specified exchange rate*. There may also be an exchange of principal at the beginning of the contract. In that case, subsequent repayments that comprise both interest and amortization of principal may be made over time according to prearranged terms. Streams of interest payments resulting from swap arrangements are recorded in the sectoral balance sheet as transactions in financial derivatives, and repayments of principal are recorded in relation to relevant instruments.

276. For foreign-currency financial derivative contracts, it is necessary to distinguish between a transaction in a derivative contract and the requirement to deliver and receive underlying principal associated with the contract.

- In contrast to the creation of other forward contracts, the creation of a foreign currency financial derivative contract does not normally lead to the recording, in the sectoral balance sheet, of a transaction in financial derivatives. Any initial sale or purchase of currency is a transaction that is recorded, at the exchange rate agreed upon by the counterparties, in the sectoral balance sheet.

- The exchange rate for the forward sale or purchase of currencies through a foreign currency derivative contract is agreed upon by the counterparties when the terms of the contract are established. The derivative contract acquires value as the prevailing market exchange rate differs from the exchange rate agreed upon in the contract.

- At the time of settlement, the difference between the values (which are measured in the unit of account and at the prevailing exchange rate) of the currencies exchanged is allocated to a transaction in a financial derivative. In other words, if the value of the currency received exceeds that of the currency paid, a reduction in a financial derivative asset is recorded. The contra-entry is an increase in another asset (probably *currency and deposits*). When the value of the currency received is less than that of the currency paid, the opposite applies. That is, a reduction in a financial derivative liability is recorded. The contra-entry is a reduction in another item (probably *currency and deposits*).

CREDIT DERIVATIVES

277. The financial derivatives described in previous sections are related to *market risk*, which pertains to *changes in the market prices of securities and commodities and to changes in interest and exchange rates.* Other types of financial derivatives are used primarily to trade *credit risk.* These *credit derivatives*, which are designed for trading in loan and security default risk, can be either forward or option contracts. Like other financial derivatives, credit derivative contracts are frequently drawn up according to standard legal agreements that specify procedures for the provision of margin, which serves as a basis for market valuation.

278. There are a number of common types of credit derivatives. A *total return swap* consists of *swapping of cash flows and capital gains and losses related to the liability of a lower-rated creditor for cash flows related to a guaranteed interest rate, such as an interbank rate, plus a margin.* A *spread option* is a *contract with value derived from an interest-rate spread between higher quality credit and lower quality credit.* For example, if the spread narrows sufficiently, the option holder benefits from exercising the option. A *credit default swap* consists of *swapping, usually on an ongoing basis, the risk premium inherent in an interest rate on a bond or a loan in return for a cash payment that is made in the event of default by the debtor.* Some credit default swap contracts require that one party make only a single payment to the other in order to be financially protected against the risk of a catastrophe befalling the creditor. Reference prices for these single-premium contracts, which are more properly classified as forms of insurance rather than financial derivatives, may not be readily available.

SELECTED SUPPLEMENTARY INFORMATION

279. Because financial derivatives are risk-transferring instruments, there may be interest—from analytical and policymaking points of view—in presenting transactions and positions in financial derivatives by type (option and forward) and by category of risk (foreign exchange, interest rate, and other).

VI. Money, Credit, and Debt

INTRODUCTION

280. This chapter covers key issues that countries confront in constructing money, credit, and debt aggregates and sets the stage for Chapter 7, which presents the statistical framework for the compilation of monetary statistics in accordance with the methodology of this manual. The first major section of this chapter describes broad money, the monetary base, and liquidity aggregates. The second major section deals with credit and debt aggregates.

281. The three basic dimensions of monetary aggregates are (1) the financial assets that are components of monetary aggregates, (2) the sectors that are money holders, and (3) the sectors that are money issuers. Similarly, credit and debt aggregates have the following three basic dimensions (1) the financial assets that are components of credit aggregates, (2) the sectors that are credit holders, and (3) the sectors that are debtors.

282. This manual follows the concepts and principles of the *1993 SNA* with respect to sectorization and the classification of financial assets in describing the aggregates covered in this chapter. The *1993 SNA* provides no specific concept or measure of broad money.

283. This manual does not contain prescriptions for national definitions of money, credit, and debt, which are left to the discretion of the national authorities. However, regardless of the national definition of broad money that is chosen, that definition is fundamental to the application of the methodology of this manual, because it, in effect, determines which units in the financial corporations sector are classified as depository corporations.

284. Depository corporations are the only money issuers in some countries; in other countries, the monetary aggregates may include liabilities issued by institutional units outside the financial corporations sector—in particular, by the central government or public nonfinancial corporations. When national monetary aggregates include liabilities issued by other sectors, these liabilities are combined with those included in the *DCS* which, as described in Chapter 7, covers the broad-money liabilities issued by financial corporations.

BROAD MONEY

Introduction

285. The sectorization principles in the *1993 SNA* are the basis for the sectoral classifications of broad-money holders and broad-money issuers, and the financial asset classification in the *1993 SNA* is the basis for all components of monetary aggregates. Despite differences in national definitions across countries, it is possible to construct broad-money aggregates for a given country from a uniform set of "building blocks." Each component of a broad-money aggregate, regardless of the national context, has the following three basic dimensions (1) the type of financial asset, (2) the type of money holder, and (3) the type of money issuer. Each of these dimensions is summarized in Box 6.1 and described below.

Types of Financial Assets

286. Money has four basic functions, serving as a

- *medium of exchange*—the means for acquiring goods, services, and financial assets without resorting to barter;

Box 6.1. Broad Money and Its Holders and Issuers: Representative Sectors and Liabilities 1/

Broad-money holders

- Central government (inclusion usually pertains only to national currency holdings)
- Other financial corporations
- State and local government
- Public nonfinancial corporations
- Other nonfinancial corporations
- Other resident sectors
- Nonresidents (inclusion usually pertains only to national currency holdings)

Broad-money liabilities

- **Issued by depository corporations**
  - National currency
  - Transferable deposits 2/
    - Demand deposits (transferable by check, giro order, or similar means)
    - Bank checks (if used as a medium of exchange)
    - Traveler's checks (if used for transactions with residents)
    - Deposits otherwise commonly used to make payments 3/
  - Other deposits 4/
    - Nontransferable savings deposits
    - Term deposits (i.e., time, or fixed, deposits)
    - Other 5/
  - Securities other than shares
    - Certificates of deposit
    - Commercial paper
    - Other
  - Other 6/
- **Issued by other sectors**
  - National currency issued by central government
  - Foreign currency (applies to countries in which foreign currency circulates as a medium of exchange)
  - Transferable deposits
    - Transferable deposits accepted by central government or the postal system
    - Traveler's checks issued by units other than depository corporations
    - Other 7/
  - Other deposits accepted by central government or the postal system
  - Other

1/ National currency, transferable deposits, and other deposits shown under "issued by depository corporations" are included in broad money in most countries. Securities other than shares and "other" liabilities issued by depository corporations (or specific subcategories therein) are included in broad money in a smaller group of countries. The currency, deposit, and "other" categories shown under "issued by other sectors" are applicable to the broad-money definitions in an even smaller group of countries.
2/ May include deposits denominated in foreign currency.
3/ May include some or all transferable deposits denominated in foreign currency.
4/ Includes shares or similar evidence of transferable deposit issued by savings and loan associations, building societies, credit unions, etc.; savings accounts that provide automatic transfer service (ATS) through which savings account balances are transferred to transferable deposit accounts that would otherwise be overdrawn; electronic money issued by card or otherwise transferable; and other types not classified elsewhere.
5/ Includes shares or similar evidence of nontransferable deposit issued by savings and loan associations, building societies, credit unions, etc.; repurchase agreements included in broad money; sight deposits that are immediately redeemable, but not transferable; and other types.
6/ Includes any loans, financial derivatives, and shares or other equities included in broad money.
7/ Includes electronic money issued by units other than depository corporations.

- *store of value*—a means of holding wealth;

- *unit of account*—a standard for denominating the prices of goods and services and the values of financial and nonfmancial assets, thereby providing a means for comparisons of values and for preparation of financial accounts; and

- *standard of deferred payment*—a means of relating current and future values in financial contracts.

287. Money, which takes the form of various types of financial assets, is held for its usability as a medium of exchange, store of value, or both. In constructing broad-money aggregates, it is necessary to evaluate the degree of *moneyness* of a wide array of financial assets, focusing on the extent to which each type of financial asset provides *liquidity* and a store of value. Liquidity refers to the extent to which financial assets can be sold at, or close to, full market value on short notice. The most liquid financial assets are currency and transferable deposits, since they can be used as media of exchange—that is, they are immediately exchangeable at full nominal value to acquire goods, services, and financial or nonfinancial assets. Financial assets other than currency and transferable deposits must possess at least some liquidity if they are to be included in broad-money aggregates.

288. The selection of financial assets to be included in broad-money aggregates reflects trade-offs between their liquidity and their usefulness as stores of value in real terms. By definition, all financial assets have value and, therefore, to varying degrees, are stores of value. However, financial assets differ widely in the extent to which their *real* values are maintained or fluctuate in response to changes in prices and interest rates in the economy. The extent to which a financial asset serves as a store of value depends on more than simply preservation of *nominal* value. Financial assets that grow in nominal value and/or earn interest, dividends, or other yields are held because of the capacity for such assets to provide stores of real value.

289. Currency and transferable deposits comprise the most liquid financial assets, and all countries include them in their broad-money aggregates.[38] The liquidity of currency and transferable deposits and, therefore, their usefulness as media of exchange arises from the following underlying characteristics:

- *Legal tender or general acceptability.* Currency must be accepted for domestic transactions because of its status as legal tender, whereas transferable deposits are generally accepted for transactions because of the recipients' confidence in their acceptability as a medium of exchange.

- *Fixed nominal (face) value.* The nominal values of currency and non-interest-bearing transferable deposits are fixed, even though their real values change with movements in the price level.

- *Transferability.* Currency and transferable deposits can be used to make direct third-party payments.

- *Transaction costs.* Payment by currency has no fees or other transaction costs, and the use of transferable deposits usually has no fees or relatively small fees attached.

- *Divisibility.* Currency and transferable deposits are the most divisible financial assets, available in denominations for making extremely small transactions.

- *Maturity.* The zero maturity of currency and transferable deposits follows from their availability for direct third-party transactions.

- *Yield.* Currency and transferable deposits earn no or low interest because their usefulness as direct media of exchange compensates the holder for the loss of interest that could have been received by holding other types of financial assets.

290. Currency is the most liquid financial asset and consists of those notes and coins that

[38]In many countries, currency and transferable deposits comprise what is often termed *narrow money*.

are used as a direct medium of exchange.

291. When foreign currency is widely accepted as a medium of exchange within a country, holdings of resident units other than depository corporations should, in principle, be included in the currency component of broad money. Estimation of the amount of foreign currency in circulation, for possible inclusion in broad money, is particularly important for countries in which a foreign currency is the main (or only) type of currency in use.

292. Difficulties arise in estimating the currency in circulation in the individual member countries of a currency union. Currency issued by the regional central bank headquarters and/or the national central banks within a currency union circulates as legal tender throughout the union, making it difficult to estimate the amount of the currency that is in use in each member country.

293. *Transferable deposits* comprise all deposits that are (1) exchangeable, without penalty or restriction, on demand at face value, and (2) directly usable for making third-party payments by check, draft, giro order, or other direct payment facility. Transferable deposits of these types, if held by sectors that are designated as money holders, are included in broad money.

294. Savings deposits sometimes have automatic transfer service (ATS) features through which deposit balances are automatically transferred to a holder's transferable deposit account to cover overdrafts—that is, in the event that the transferable deposit account is overdrawn. Savings account balances become transferable, albeit indirectly, as a result of the automatic transfer feature. ATS accounts are normally included in transferable deposits.

295. Foreign-currency-denominated deposits that can be directly used as a medium of exchange fall under the category of transferable deposits.

296. Traveler's checks issued by financial or nonfinancial corporations have medium-of-exchange properties that are similar to currency. If traveler's checks are expected to be used primarily for domestic transactions and are issued by financial corporations, they are generally included in broad money. Traveler's checks issued by nonfinancial corporations also may be included in broad money as nationally defined. Traveler's checks that are expected to be used abroad would, in principle, be excluded from broad money.

297. Cashier's checks and similar liabilities issued by depository corporations are usually classified as transferable deposits but may be classified as currency if they circulate as a widely accepted medium of exchange. In any event, they would normally be included in broad money.

298. In some countries, shares in money-market funds can be transferred by check or other means of direct third-party payment, while in others there may be restrictions on the transferability features—for example, on the maximum number of checks written per period or on the minimum amount per check. Whatever their features, money market fund shares are usually included in broad money.

299. When one moves from currency and transferable deposits to an examination of other components of broad money, liquidity becomes a relative concept, and store of value becomes a more prominent property. Some broad-money components are relatively liquid, being convertible into currency or transferable deposits without incurring significant costs or delay, while others are less liquid but generate substantial returns in the form of interest or noninterest returns.

300. Transactions costs, divisibility, maturity, and yield are basic characteristics that are fundamental in deciding if a particular type of financial asset should be included in broad money and, if so, where it fits within the money hierarchy when there are several monetary aggregates.

- *Transactions costs.* Many categories of deposits and some types of securities can be converted into currency or transferable deposits without incurring explicit costs in the form of fees or other charges or the implicit costs arising from delays in the conversion process. In contrast, conversion of some types of financial assets involves substantial transaction costs or time delays.

- *Divisibility*. In some cases, broad-money definitions contain only small-denomination financial assets of a particular type. Differentiation by large and small denomination occurs most frequently in countries that compile several monetary aggregates.

- *Maturity*. Maturity is a major determinant of the components of broad money. In some cases, the hierarchy of a set of broad-money aggregates proceeds from only short-term components to the inclusion of somewhat longer-term deposits or securities in higher-ordered aggregates.

- *Yield*. In general, the components added to form the progressively higher-ordered aggregates have higher yields than the interest-earning components of the lower-ordered aggregates.

301. *Other deposits* and *securities other than shares* account for the predominant portion of broad-money components other than currency and transferable deposits. Other deposits cover all types of nontransferable deposits: term deposits; savings deposits; foreign-currency-denominated deposits; sight deposits that cannot be directly used for third-party payments; shares or other evidence of deposit issued by savings and loan associations, building societies, credit unions, etc.; and other types of deposits.

302. Savings deposits and term deposits of very short maturity can be redeemed (converted into cash or transferable deposits) with little or no delay or withdrawal penalty, thus imparting a relatively high degree of moneyness. Foreign-currency-denominated deposits are viewed as somewhat less liquid, since their domestic currency values are subject to change in response to exchange rate movements. However, deposits denominated in foreign currency are usually included in broad-money aggregates. Redemption of long-term deposits usually involves delays and/or substantial penalties for early withdrawal, resulting in such deposits being less liquid and possibly being excluded from one or more broad-money aggregates.

303. Repurchase agreements are classified under other deposits if they are considered part of nationally defined broad money. Other repurchase agreements should be classified under loans.

304. Explicit deposit restrictions are sometimes imposed, either as commercial practice or as an element of national economic policy. Withdrawals from some restricted deposit accounts may be restricted only for short periods, and such deposits may still possess sufficient moneyness to be included in the national definition of broad money. However, restricted deposits for which withdrawals are restricted for protracted periods are usually excluded from broad money.

305. Import deposits are deposits that importers are required to place in special accounts as a prerequisite to opening import letters of credit. Import deposits and similar types of deposits related to international trade are usually included in national definitions of broad money if the restrictions on the use of the deposits are viewed as short term.

306. Checks or other types of transferable items are posted directly to depositors' accounts, but these are unavailable for use until after the transferable items have been cleared through the central bank or other type of clearing organization. Such unavailable deposits should be recorded under *items in the process of collection* within deposits excluded from broad money. Exclusion of such deposits from transferable deposits avoids their being double counted in the monetary aggregates, given that these deposits continue to be included in the transferable deposits of the depository corporations on which the items were drawn until the items are collected from these depository corporations.

307. Restricted deposits in the form of compulsory savings deposits are often excluded from the monetary aggregates. However, inclusion may be considered if relatively liberal withdrawal privileges for such deposits are provided in the national context. Foreign exchange deposits for which withdrawals are not allowed for protracted periods are usually excluded from the monetary aggregates.

308. A special form of deposit restriction arises when a depository corporation is unable to meet depositors' withdrawal demands for substantial periods, because the depository corporation has insufficient funds or because its operations have been suspended. In such cases, it is often unclear how long depositors will need to wait to access their deposits, or even whether they will eventually be able to redeem all or part of their deposit balances. In the meantime, the deposits are totally illiquid. Nevertheless, as long as the depository corporation continues to exist, its liabilities to all depositors and other creditors also exist. This manual recommends exclusion of all deposit liabilities of nonoperating depository corporations from the monetary aggregates. These deposits should continue to be classified as restricted deposits as long as the nonoperating units continue to exist as legal entities. Reorganization, sale, or merger of the affected depository corporations may result in all or part of the deposits eventually becoming available to depositors.

309. Some types of short-term *securities other than shares* issued by depository corporations are convertible into cash or transferable deposits with reasonably short delays and at close to full value if traded before maturity, and therefore are often included in broad-money aggregates.

310. Negotiable certificates of deposit and commercial paper issued by depository corporations often trade in efficient secondary markets, making them strong candidates for inclusion in monetary aggregates. Bankers' acceptances issued by depository corporations may also be traded in efficient secondary markets and therefore may be included in broad measures of money. However, it is more common for bankers' acceptances to be transacted in specialized markets or have other limitations imposed on their liquidity, a situation that would warrant their exclusion from broad money.

311. Some medium-term securities (e.g., those with maturities of two years or less) may be included in broad money. Long-term securities are much less liquid, even if traded in secondary markets, because of their fluctuations in value when interest rates change. Therefore, long-term securities are usually excluded from broad-money aggregates.

312. The other categories of financial assets—*loans*, *shares and other equity*, *financial derivatives*, *insurance technical reserves*, and *other accounts payable/receivable*—are usually excluded from broad money. The direct and specific nature of the financial contract between lenders and borrowers makes many types of *loans* quite illiquid. Securities repurchase agreements that do not involve an effective change in ownership are classified as collateralized loans, unless they are repurchase agreements that are included in the national broad-money definition, in which case they are classified as deposits.

313. *Shares and other equity* serve as a store of value and may be converted to cash or transferable deposits through their sale in organized securities exchanges or over-the-counter markets. However, they have limited liquidity because of time delays and transaction costs associated with their conversion and the potential variability of their market prices, leading to exclusion from the monetary aggregates. Shares in equity mutual funds and bond mutual funds may experience substantial price variability, and the sale of such shares may involve significant transaction costs and time delays, resulting in their exclusion from the monetary aggregates.

314. Shares in money market funds are an exception. Such funds invest only or primarily in short-term money market securities such as treasury bills, certificates of deposit, and commercial paper. Shares in some money market funds are transferable and, in such cases, would qualify for inclusion in broad money. Nontransferable shares in money market funds may also be included in broad-money aggregates, since they have significantly more liquidity (i.e., less price variability and lower transaction costs) than ordinary corporate shares or shares in other types of mutual funds.

315. *Insurance technical reserves* related to life or nonlife insurance and pension funds are highly illiquid and are excluded from monetary aggregates. *Financial derivatives* may be tradable, but their high degree of price variability precludes the inclusion of most types of financial derivatives in broad money. *Other accounts receivable/payable* lack sufficient liquidity to be included in broad money.

MONEY HOLDERS

316. Broad-money aggregates usually include the designated financial assets of only a specified subset of the sectors in an economy. Although some differences in holding sectors are observed, the principal money holding sectors are the same in almost all countries. Money holders are usually defined to include all resident sectors except depository corporations and the central government. That is, the money holders usually comprise (1) public and other nonfinancial corporations, (2) units of government other than the central government, (3) households and nonprofit institutions serving households, and (4) all institutional units in the financial corporations sector other than the depository corporations subsector—i.e., other than the central bank and other depository corporations.

317. Even though domestic currency holdings of the central government and nonresidents could, in principle, be excluded from broad money, efforts to estimate such holdings may not be justified if the amounts are relatively small. However, estimation of nonresident holdings of the national currency, and adjustment of the broad-money aggregates to exclude such holdings, may be warranted if a substantial amount of national currency circulates outside the domestic economy and is used as legal tender in one or more other countries.[39]

318. In principle, nonresidents' deposit holdings are excluded from broad-money aggregates because their deposits are used primarily for international, rather than domestic, transactions. However, the deposits that emigrant workers hold in depository corporations in their home countries might be freely usable by authorized family members or other designated parties in settling transactions in the home country. In such situations, it would be appropriate to include such deposits in broad money rather than to classify them as liabilities to nonresidents. Similarly, cross-border workers—residents of bordering countries who work in the domestic economy—may hold deposits in the countries in which they work. If such deposits are used in the country where they work, rather than in the country where they reside, it would be appropriate to include them in the monetary aggregates of the country where they work rather than in liabilities to nonresidents.

319. Deposit holdings of central government are usually excluded from the monetary aggregates. The justification for such exclusion is often empirically based. It is argued, at least for some countries, that central government deposit holdings do not respond to macroeconomic influences (i.e., changes in economic activity, interest rates, exchange rates, etc.) in the same way, or to the same degree, as deposits of the money holding sectors because of the unique nature of the central government's financing constraints, spending decisions, and cash management techniques.

320. Exclusion of central government deposits from the monetary aggregates may also be

[39] For most countries, the major cross-border currency flows arise from the currency transport of tourists, business travelers, cross-border workers, emigrant workers returning to their home countries, and those engaged in smuggling or other illegal activities. For those countries that use foreign currency as a major form of legal tender, official shipments of foreign currency may be used to augment the currency stock. The records for such shipments can be used in estimating the currency stocks in both countries—i.e., the "importing" and "exporting" countries.

justified on the basis of the analytical approach to monetary and fiscal policy formulation. A major element of such formulations focuses on the amount of central government financing that depository corporations provide, represented by their net claims on the central government—that is, total claims on the central government *less* the central government's deposits. The *DCS*, described in Chapter 7, shows net claims on the central government on the asset side, in lieu of including central government deposits as a component of broad money or as a separate liability category. (The link between broad money and the other accounts of the depository corporations, including net claims on central government, is described in "Overview of the Framework" in Chapter 7.)

MONEY ISSUERS

321. The framework for monetary statistics set forth in this manual focuses on a measure of broad money that comprises those liabilities of financial corporations included in the national definition of broad money. The framework classifies all financial corporations that issue such liabilities as depository corporations and recommends the compilation of a *DCS* showing, in a balance sheet format, broad-money liabilities of the depository corporations and the asset counterparts to those liabilities.

322. Depository corporations may be the only money issuers in some countries. The broad-money aggregates in other countries may include liabilities issued by institutional units outside the financial corporations sector, in particular, by the central government or public nonfinancial corporations. For example, in many countries, the central bank is the sole issuer of currency. In some countries, however, the national treasury issues coins and/or paper currency. In such cases, this government currency issue would not be included in the depository corporations survey described in Chapter 7, but would normally be included in broad money as nationally defined. Similarly, transferable deposits, and perhaps other types of liabilities, accepted by the central government or public nonfinancial corporations, such as post office checking and savings units,[40] are usually included in national broad-money aggregates but would fall outside the scope of the *DCS*. Also, in situations where a foreign currency co-circulates with the national currency, the country issuing the foreign currency should, in principle, be considered a nonresident money issuer in the domestic economy.

323. When national broad-money aggregates include liabilities issued by institutional units other than depository corporations, it is necessary to combine these liabilities with those included in the *DCS*. Box 6.1 provides a framework for such a presentation.

324. Many countries compile data for two or more monetary aggregates that are progressively higher ordered. In such cases, the money-issuing sectors may differ across these money aggregates, but a single broad-money aggregate must be specified in constructing the *DCS* described in Chapter 7. In general, it is expected that this aggregate will be the highest-ordered, or broadest, measure of the broad-money liabilities of depository corporations.

THE MONETARY BASE

325. The monetary base comprises central bank liabilities that support the expansion of broad money and credit. The monetary base is sometimes called *high-powered money*, because changes in the monetary base usually lead to increases in money and credit that are larger than the changes in the monetary base.

326. The monetary base is not a monetary aggregate, because it is a measure of the

[40]If the post office constitutes a separate institutional unit with a predominantly financial character, it should be classified as an other depository corporation and thus be included in the *ODCS* described in Chapter 7.

funding base that underlies the monetary aggregates, rather than a monetary aggregate itself. The monetary base includes central-bank-issued currency that is included in the monetary aggregates, but it also includes at least two components that are excluded from the monetary aggregates—namely, other depository corporations' deposit holdings at the central bank and their holdings of national currency. The monetary base sometimes contains additional components, depending on the types of liabilities issued by the central bank and the analytical use for which the monetary base is formulated.

327. Countries have different definitions of the monetary base, and, even within a country, more than one definition may be employed depending on the analytical use. A broad definition of the monetary base would include all central bank liabilities to the financial corporations and other sectors (excluding central government holdings of central bank liabilities other than currency). Narrower definitions of the monetary base would exclude some categories of central bank liabilities to other depository corporations, other financial corporations, and/or other sectors. Deposits that are restricted for significant periods of time are typically excluded from the monetary base.

328. Central bank deposits that other depository corporations use to satisfy reserve requirements and for clearing purposes are always included in the monetary base. However, other depository corporations' holdings of central bank liabilities that (1) do not qualify for satisfying reserve requirements and (2) are restricted from use for other purposes are often excluded from the monetary base.

329. Central bank liabilities to other financial corporations, nonfinancial corporations, and other resident sectors (i.e., households and nonprofit institutions serving households) are usually included in the monetary base, particularly if these liabilities are included in the national definition of broad money.

330. Box 6.2 shows major types of central bank liabilities that are representative of those included in the monetary base in many countries. Components of the monetary base appear in a somewhat different format in the *CBS* described in Chapter 7. Some of the liability categories shown in Box 6.2 are not applicable for all countries. Many central banks do not issue securities, and in many countries, the central bank does not accept deposits from nonfinancial corporations and other resident sectors. In some countries, other depository corporations are the only financial corporations subsector from which the central bank accepts deposits.

Box 6.2. The Monetary Base: Representative Components 1/

Currency in circulation 2/
Central bank liabilities to other depository corporations
- Transferable deposits (required reserves and clearing balances)
- Other deposits
- Securities issued by the central bank 3/

Central bank liabilities included in broad money
- Transferable deposits
- Other deposits

Central bank securities included in broad money

1/ Broader or narrower definitions of the monetary base may be used in the national context.
2/ Normally comprises currency holdings of all subsectors other than the central bank. In particular, the holdings of the central government, all financial corporations other than the central bank, and nonresidents are usually included along with the holdings of the other sectors. The currency component of the monetary base in the *CBS*, described in Chapter 7, includes only the national currency issued by the central bank. The currency component of the monetary base in a monetary authorities account, described in Chapter 7, would also include any currency issued by the central government.
3/ If holdings of these securities can be used in satisfying reserve requirements, they are included in the monetary base. Otherwise, such holdings are included or excluded, depending on the specific formulation and analytical use of the monetary base.

LIQUIDITY AGGREGATES

331. Liquidity aggregates are broader than broad money with respect to both the types of liabilities included and the issuing sectors covered. Liquidity aggregates include, in addition to broad-money liabilities, other liabilities that are viewed as somewhat liquid, but not sufficiently liquid to be included in broad money as nationally defined. Box 6.3 illustrates the types of liabilities and holding and issuing sectors that would be considered in constructing a liquidity aggregate.

Box 6.3. Liquidity Aggregates: Representative Sectors and Liabilities

Liquidity holders
- Central government (inclusion possibly pertains only to national currency holdings)
- Other financial corporations
- State and local government
- Public nonfinancial corporations
- Other nonfinancial corporations
- Other resident sectors
- Nonresidents (inclusion possibly pertains only to national currency holdings)

Broad-money liabilities—see Box 6.1

Plus

Liabilities issued by the following: 1/
- **Depository corporations**
  - Long-term deposits
  - Securities other than shares
  - Commercial paper
  - Bankers acceptances
  - Long-term securities
- **Other financial corporations**
  - Commercial paper
  - Other securities
  - Shares and other equity (in particular, mutual fund shares)
- **Central government**
  - Long-term deposits accepted by the national Treasury, etc. 2/
  - Short-term securities (for example, treasury bills)
  - Savings bonds
  - Other securities
- **State and local government**
  - Municipal securities
  - Other securities
- **Public nonfinancial corporations**
  - Long-term deposits accepted by the postal system 2/
  - Commercial paper
  - Other securities
- **Other nonfinancial corporations**
  - Commercial paper
  - Other securities
- **Other 3/**

1/ National definitions of liquidity aggregates may differ considerably across countries.
2/ Short-term deposits accepted by these units typically are included in the broad-money component of the liquidity aggregate.
3/ Liabilities not classified elsewhere.

CREDIT AND DEBT

INTRODUCTION

332. Credit creation involves the provision of resources by one institutional unit (the creditor or lender) to another unit (the debtor or borrower). The creditor unit acquires a financial claim, and the debtor incurs a liability to repay. Credit is viewed from the asset side, and debt from the liability side. Nevertheless, data on debt, particularly that incurred by the household sector, may need to be collected from creditor sources on the asset side.

333. As is the case with monetary aggregates, there are no unique definitions of credit and debt, and the *1993 SNA* does not define such measures. A credit measure may cover only a subset of all types of credit that creditor units provide to debtor units. This manual uses the term *claims on* to refer to the financial assets held by one unit that are liabilities of another unit, and recommends the measurement of such claims within the framework of the surveys, as presented in Chapter 7, and the stock and flow data for the entire economy, as presented in Chapter 8. This manual does not recommend specific measures of credit or debt, and compilers are encouraged to develop measures that are analytically useful in their specific institutional settings. The following sections describe the considerations that should be taken into account in developing credit and debt measures and provides examples of credit and debt measures that are commonly compiled.

CREDIT

Introduction

334. Measures of credit have the same three dimensions as monetary aggregates. Defining credit measures involves specifying (1) the financial assets included, (2) the issuing sectors (lenders), and (3) the holding sectors (borrowers). Measures of credit may encompass the total economy or may be limited to specific issuing sectors (e.g., credit issued by depository corporations). Credit measures may also focus on specific lender/borrower relationships (e.g., central bank credit to central government). The composition and coverage of credit measures should be reviewed periodically to ensure that they reflect the changing use of credit instruments and new credit channels, such as greater reliance on securities markets at the expense of financial intermediation, and changes in the types of financial assets used in the provision of credit.

335. Credit is a major link in the money transmission process. Credit to nonfinancial sectors finances production, consumption, and capital formation. A credit multiplier exists in the same sense as a money multiplier and, except in cases where money expansion arises from external factors, credit expansion is usually accompanied by an expansion of the money stock. Broad credit aggregates may be related to overall economic activity, whereas data on specific types of credit (e.g., mortgage lending, consumer credit, or construction lending) may be related to the economic activity of specific sectors or industries.

336. Credit measures cover financial assets only and therefore exclude contingent positions such as lines of credit, loan commitments, and guarantees, but the compilation of supplementary information on such contingent positions may be of value in projecting credit expansion and assessing credit policy. There are several circumstances in which it may be difficult to establish whether a contingent or an actual position exists. For example, government units (and central banks) may obtain financing from abroad for specific domestic uses. The government may incur a direct liability to the nonresident source of funds or may act as an agent or guarantor between the nonresident and the final recipient of the credit. When the government incurs a direct liability and on-lends the funds, these transactions should be recorded as foreign liabilities of the government and as credit provided by the government to the final recipient. When the government acts only as an agent or guarantor between the nonresident and the final recipient, the nonresident should be shown as providing the credit directly to the final recipient. A similar situation may arise when government units (or central banks) provide funds to financial corporations to finance specific types of credit (e.g., credit to agriculture or to other specific industries). If the financial corporation incurs a direct liability to the government and acquires a claim on the final recipient, the credit should be recorded as credit provided by the government to the financial corporation and as credit extended by the financial corporation to the final recipient. When the financial corporation acts only as an agent for the government, credit should be shown as being provided by the government directly to the final recipient.

Assets

337. Credit measures may cover all or only a subset of financial assets that constitute forms of credit. Narrow credit measures cover claims in the form of loans, securities other than shares, and trade credit and advances. Such measures exclude deposits, shares and other equity, financial derivatives, claims on life insurance corporations and pension funds in the form of insurance technical reserves, and other accounts receivable that are not part of trade credit. Even though the placing of deposits is not considered a typical method of providing credit, there are circumstances in which such deposits are viewed as credit extensions—for example, when governmental units maintain deposits in financial corporations for the express purpose of funding specific activities of these corporations. In such cases, the financial assets have the legal form of a deposit but have the economic nature of a loan.

338. Broad credit aggregates encompass most or all types of financial claims of one unit on another and thus include holdings of shares and other equity. Acquisition of shares and other equity provides financial resources in a manner similar to other credit extensions, but it differs substantially from other credit flows because of the residual nature of liabilities in the form of shares and other equity. Institutional patterns in various countries may affect preferences to use either debt or equity instruments as primary means of investing in corporations, and these patterns should be reflected in the choice of financial assets to be included in credit measures.

339. Credit aggregates often separately identify credits denominated in foreign currencies. Breakdowns by maturity are also common. They may also be disaggregated by type of credit instrument and by sector of the lender and borrower.

Lenders

340. The lending sectors may be defined narrowly or broadly. Narrow credit aggregates may be defined to include only depository corporations' claims on other sectors. The *DCS* presented in Chapter 7 provides the statistical framework for developing credit measures for depository corporations' claims. Broader measures may cover all financial corporations' claims, as included in the *FCS* described in Chapter 7. Comprehensive measures of credit may include credit extended by all domestic sectors and nonresidents.

341. Suppliers of credit within the financial corporations sector may be a broader group than the issuers of broad-money liabilities. Other financial corporations may provide credit using the same or similar credit instruments as depository corporations, thereby differing from these corporations only with respect to the manner in which their funding is acquired and the types of noncredit services provided. These other credit suppliers obtain funds by incurring liabilities that are not included in broad money, such as through the issuance of securities other than shares, borrowing from depository corporations, or issuance of shares and other equity.

342. Some important types of credit are provided primarily by nonfinancial sectors. Trade credit supplied by nonfinancial corporations is an example. Nonfinancial units often acquire financial assets for liquidity purposes and, as a result, are significant suppliers of credit to other units. Many nonfinancial corporations provide credit to affiliated companies, and governments may be major suppliers of credit.

Borrowers

343. Under broad definitions of credit, the borrowing sectors are usually defined to include all nonfinancial sectors. Specific credit measures may focus on credit provided to individual sectors or subsectors or groupings of sectors. Common examples include credit to central government, credit to the total or nonfinancial public sector, credit to business, and credit to the private sector. Data on credit to nonresidents are needed to account for total credit provided, but analysis often focuses on claims on (i.e., credit to) residents, because of the direct impact of residents' borrowing on domestic economic activity. Credit flows between financial corporations are often excluded from broad credit measures.

Specific Credit Measures

344. The surveys of the financial corporations sector that are presented in Chapter 7 provide data on credit extended by financial corporations to other domestic sectors. The surveys provide aggregate measures of credit, covering claims on the central government, state and local government, public nonfinancial corporations, other nonfinancial corporations, and other resident sectors. The sectoral balance sheets used to compile these surveys contain data that can be used to compile credit measures broken down by both sector and type of financial asset (i.e., credit instrument).

345. Credit measures that are important for the formulation and implementation of monetary and other macroeconomic policy include the following:

- *Central bank credit.* Extension of credit by the central bank to other depository corporations (and sometimes to other financial corporations) is important for implementing monetary policy. Such credit may be extended to (1) provide liquidity to fund ongoing operations of other depository corporations, (2) enable other depository corporations to respond to seasonal credit demand, (3) influence national financial conditions and the amount of broad money, or (4) provide emergency assistance. The central bank can either place deposits in, or grant loans to, financial corporations. Either method provides other depository corporations with funds to support expansion of credit, leading to growth of broad money. Central banks regulate the cost at which financial corporations acquire such funds and attach other terms and conditions to the access to such credit, thereby influencing credit and monetary conditions in the economy.

- *Central government credit.* Central governments supply credit to financial corporations by extending loans or by providing deposits that are intended to be used for credit expansion by financial corporations. Governments also often provide credit to nonfinancial sectors to foster public policy goals such as development of specific industries or regions or to provide emergency aid. Credit from governmental units is often granted at subsidized (i.e., below-market) interest rates. Comprehensive measures of government credit include lending by the central government and other levels of government.

346. Among the most frequently monitored measures of credit are those pertaining to the provision of credit to central government and other units of the public sector, particularly credit provided by depository corporations. Standard measures of credit provided by depository corporations include credit to the central government, state and local government, and public nonfinancial corporations, respectively. Separate data are compiled for credit extended by the central bank and other depository corporations to each of the subsectors within the public sector. The *CBS* and *ODCS*, presented in Chapter 7, provide a comprehensive framework for developing these credit measures. The *FCS*, also presented in Chapter 7, provides the appropriate framework for expanding the coverage of measures of credit to the public sector to encompass the credit provided by other financial corporations, as well as by depository corporations.

347. The flow of funds and the corresponding formulation for stock data, as described in Chapter 8, provides the appropriate framework for compiling measures of intersectoral credit, identifying both the lending and borrowing sectors.

DEBT

Introduction

348. Debt gives rise to future payment obligations. As a consequence, debt liabilities have the potential to create circumstances that render an institutional unit, a sector, and even the whole economy vulnerable to liquidity and sustainability problems. For these reasons, there is analytical interest in debt measures.

349. Among financial instruments, deposits, loans, securities other than shares, and other accounts payable are all debt instruments, because they require future payments of principal and/or interest. For the remaining financial instruments, there are differing views as to what is and what is not debt. The surveys presented in Chapter 7 provide a comprehensive framework for compiling measures of debt owed to the financial corporations sector. Debt of the total economy may be presented as an aggregation of the debt of all domestic units, or on a consolidated basis that eliminates all debts that are assets of residents, thereby leaving only liabilities to nonresidents. The latter is referred to as external debt.

350. A key element in debt analysis is maturity structure, although features such as callability reduce, to some extent, the importance of the maturity of some debt. For maturity analysis, debt data should be disaggregated, at a minimum, into short- and long-term categories, and more detailed maturity breakdowns are often useful. Data can be compiled on either an original or remaining maturity basis.

351. Countries compile a wide range of debt measures, covering specific sectors and subsectors or an entire economy. In many cases, there are credit measures that correspond to the debt measures (e.g., consumer credit and consumer debt). Some of the more common debt measures are described below.

Household Debt

352. Household debt is incurred for a variety of purposes. Often debt is incurred to finance the purchase of specific assets that are pledged as collateral for loans. For example, the assets being purchased usually collateralize mortgage loans and auto loans. But units in the household sector also incur debt for current consumption in the home, for financing education or medical expenses, for obtaining working capital or longer-term funds for proprietorships, and for funding the purchase of equity or other financial assets. Interest rates, the amount of monthly payments for installment loans, wealth, and expectations regarding future income all affect households' decisions to borrow.

353. Debt of the household sector is often disaggregated into *mortgage debt* and *consumer debt,* the latter term referring to many other types of household debt including the following:

- Loans that other depository corporations and other financial intermediaries (e.g., finance companies) provide directly to consumers.

- Loans provided by the sellers of goods and services.

- Credit card debt.

- Loans that are provided by insurance corporations and are collateralized by the borrowers' equity in such entities.

- Financial leases that permit consumers to acquire durables through such arrangements in lieu of conventional loan contracts.

354. Because of the difficulty of obtaining data directly from households, data on consumer debt are usually derived from creditor sources.

Business Debt

355. Corporations and other business entities incur short-term debt to finance current production, acquire inventories, and meet recurring expenses such as tax and interest payments. They also acquire long-term debt to finance capital formation. Corporations may finance these activities by obtaining trade credit, by borrowing from financial corporations, and by issuing securities.

Public Sector Debt

356. Debt data may be compiled for the entire public sector or for the nonfinancial public sector. Such data are needed, in particular, when public sector debt is a policy target. Data on government debt may be compiled for the central government or for the entire general government sector. Data on government debt are often disaggregated by debt to residents and to nonresidents. Supplementary data on debt that is incurred by other sectors, but is guaranteed by the government, should be compiled if the amounts of such guarantees are substantial.

357. The *Government Finance Statistics Manual*, forthcoming from the IMF, provides guidelines for the construction of measures of government debt. This manual will contain the international guidelines for this area of statistics.

External Debt

358. External debt refers to debt liabilities of a country, sector, or unit to nonresidents that require payment of interest and/or principal by the debtor at some point in the future. External debt statistics, including debt service payments data, are used in the analysis of vulnerability to solvency and/or liquidity problems. They are useful for general macroeconomic analysis, for negotiations of debt rescheduling, and for preparation of estimates of international flows of property income.

359. The International Investment Position (IIP) statement described in the *BPM5* covers an economy's stock of external financial assets and liabilities and provides a comprehensive framework for the measurement of external debt. The components of the IIP can be reconciled with the financial asset categories of the *1993 SNA*.

360. Analysis of the vulnerability of an economy's external debt position requires data beyond that provided by the IIP framework. These other data series include information on the amount actually owed; the nominal value of debt, as opposed to the market value of external debt; information on the future payment schedule; the debt service schedule; information on the domestic and foreign currency composition of debt, needed to ascertain the possible balance-sheet effects arising from exchange rate changes; and, increasingly, information on the extent to which financial derivatives are used to hedge, or even increase, exposure to risk.

361. The Inter-Agency Task Force on Finance Statistics (comprising representatives of certain international organizations, including the IMF) is expected in 2001 to publish *External Debt Statistics: Guide for Compilers and Users*, which will provide international methodological standards for the measurement of external debt, as well as guidance on the analytical use of the data and on the sources and methods for their compilation. The guide will update *External Debt: Definition, Statistical Coverage, and Methodology*, 1988.

VII. THE FRAMEWORK FOR MONETARY STATISTICS

INTRODUCTION

362. This chapter describes the framework for the compilation and presentation of *monetary statistics* in accordance with the methodology recommended in this manual. The monetary statistics cover stock and flow data on the assets and liabilities of the financial corporations sector and its subsectors. The broader category of *financial statistics*, described in Chapter 8, covers all financial stocks and flows in the economy.

363. The monetary statistics include data for all institutional units in the *financial corporations sector*, which, as described in Chapter 3, is subdivided into five subsectors in the *1993 SNA*. For compiling the monetary statistics, the financial corporations sector is divided into the *central bank subsector*, the *other depository corporations subsector*, and the *other financial corporations subsector*, the last of which encompasses the *1993 SNA* subsectors for insurance corporations and pension funds, other financial intermediaries, and financial auxiliaries. Taken together, the central bank and other depository corporations constitute the *depository corporations subsector*.

364. The framework for the monetary statistics recommended in this manual embodies two levels of data compilation and presentation. At the first level, stock and flow data reported by individual institutional units are aggregated into *sectoral balance sheets*, which contain comprehensive data for the individual financial corporations subsectors—that is, the central bank, other depository corporations, and other financial corporations. At the second level, the data in the sectoral balance sheets are consolidated into *surveys*. The data in the sectoral balance sheets are also used in the compilation of the financial statistics, as described in Chapter 8.

365. Surveys are compiled for financial corporations subsectors and for the entire financial corporations sector. The *DCS* and its component surveys—the *CBS* and the *ODCS*—are the major focus of the monetary statistics and constitute a core set of data for macroeconomic analysis. The *DCS* contains stock and flow data on those depository corporations' liabilities that are components of broad money, as nationally defined, and data on depository corporations' assets that are claims on (i.e., credit to) other sectors of the economy. The *DCS* also contains data on depository corporations' claims on and liabilities to nonresidents. The *CBS* and *ODCS* show the data that are consolidated to obtain the *DCS* and other data that are used in monetary and credit analysis at the separate levels of the central bank and other depository corporations. In particular, the *CBS* shows the components of the monetary base, described in Chapter 6.

366. The monetary statistics framework also includes the *FCS*, which extends the coverage beyond the depository corporations covered in the *DCS*. In the *FCS*, the stock and flow data from the *DCS* are consolidated with the data from the *OFCS*, which contains stock and flow data consolidated for insurance corporations and pension funds, other financial intermediaries, and financial auxiliaries. The *FCS* thereby provides the stock and flow data for analyzing claims on and liabilities to all other sectors of the economy and nonresidents, at the level of the entire financial corporations sector. In particular, the *FCS* shows a comprehensive measure of credit extended by financial corporations.

OVERVIEW OF THE FRAMEWORK

367. The purpose of the sectoral balance sheets is to provide a framework for the collection and presentation of data in a format that facilitates (1) the compilation of surveys,[41] as described in this chapter and (2) the presentation of flow of funds for the financial corporations sector, as described in Chapter 8. The data for a sectoral balance sheet are obtained from the individual institutional units within a financial corporations subsector and are classified into standard components, in accordance with the sectorization, instrument classification, and accounting principles in this manual. In addition, sectoral balance sheets are directly useful for analyses requiring subsector data that are more highly disaggregated than the asset and liability categories shown in the corresponding financial subsector surveys.

368. The *DCS* covers the accounts of the depository corporations and is a consolidation of the *CBS* and the *ODCS*. The *FCS* is a consolidation of the *DCS* and the *OFCS*.

369. For many countries, the *DCS* will constitute the principal set of monetary statistics for macroeconomic policy. The *DCS* is a consolidated statement of stocks and flows for the accounts of all financial sector corporations that incur liabilities included in the national definition of broad money. The framework of the *DCS* is designed to facilitate analysis of broad money and its components, credit aggregates and their components, and depository corporations' foreign assets and liabilities and other assets and liabilities.

370. By maintaining the balance-sheet identity in the *DCS*, the broad money liabilities of depository corporations are linked to their claims on (i.e., credit to) nonresidents and sectors of the domestic economy, and to their other assets and liabilities. This balance sheet identity is reflected in the stock and flow data in the *DCS*.

371. No single definition of broad money is prescribed in this manual, in recognition that national definitions of broad money vary considerably across countries. For each country, the national definition of broad money is used in determining the institutional units covered by the *DCS*. All institutional units that (1) are included in the financial corporations sector *and* (2) issue liabilities included in the national definition of broad money are classified as depository corporations and are therefore included in the *DCS*.[42]

372. The *DCS* is structured to facilitate macroeconomic analysis that makes use of the linkages between the monetary statistics and other macroeconomic statistics. The balance sheet presentation of the *DCS* links depository corporations' broad money liabilities to their foreign assets and liabilities and to their claims on and liabilities to central government, thereby linking the monetary statistics to the balance of payments and government finance statistics, respectively.

373. The *DCS* can be rearranged to show that *broad-money liabilities* (*BML*) equal the sum of *net foreign assets* (*NFA*), *domestic credit* (*DC*), and *other items (net)* (*OIN*). That is, the opening or closing stock positions in the *DCS* can be shown as

$$BML = NFA + DC - OIN$$

DC comprises *net claims on central government* and *claims on other sectors*. *OIN* denotes a residual category for *other liabilities* less *other assets*, when *other liabilities* includes all liabilities not included in broad money.

374. Total flows (closing stocks less opening stocks) for the *DCS* are shown as

$$\Delta BML = \Delta NFA + \Delta DC - \Delta OIN$$

[41]The surveys contain stock and flow data encompassing all assets and liabilities for the units covered by the respective suvey. Each is based on data for all institutional units within the subsector. Thus, the term *survey* refers to comprehensive data for all units in a subsector, rather than to sample survey data that would cover only a subset of units or only a subset of the asset and liability accounts.

[42]National definitions of money may include liabilities of sectors in addition to those of the financial corporations sector. These components of money may include currency issued by the central government, deposits issued by the public nonfinancial corporations sector (i.e., post offices), and currency issued by nonresidents. These components are combined with the money components in the *DCS* to obtain monetary aggregates as nationally defined.

where Δ denotes a total flow (period-to-period change). The flow data in each category in the *DCS* are decomposed into separate flows for transactions, valuation changes, and OCVA.

375. Changes in broad money liabilities can arise from changes in the foreign assets and foreign liabilities of the depository corporations, as can be seen from the identity that links ΔBML to ΔNFA, shown in the preceding paragraph.

376. The components of ΔDC are shown as

$$\Delta DC = \Delta NCG + \Delta CORS$$

where *NCG* and *CORS* denote *net claims on central government* and *claims on other resident sectors*, respectively.

377. The components of ΔNCG in the *DCS* are directly linked to the government finance statistics. Data on the transaction flows for the underlying components of net claims on central government can be used to analyze the expansionary or contractionary effects on broad money that can arise from financial transactions between the depository corporations and the central government. Growth in net claims on central government—through a rise in depository corporations' holdings of government securities, direct lending to government, and/or reduction in government deposit holdings—will exert an expansionary influence on the broad-money liabilities of depository corporations.

378. $\Delta CORS$ shows the total flows arising from changes in depository corporations' claims on resident sectors other than the central government. An increase in these claims—a positive $\Delta CORS$—has an expansionary effect on broad money liabilities, whereas a decrease in these claims has a contractionary effect. Data on the sectoral components of $\Delta CORS$ can be used to analyze the sources of expansionary or contractionary effects on broad money, arising from growth or decline in depository corporations' claims on the various sectors of the economy. For more detailed analysis, $\Delta CORS$ can be disaggregated into transactions, valuation changes, and OCVA.

SECTORAL BALANCE SHEETS

379. The sectoral balance sheet constitutes the underlying framework for organizing the monetary data that are used to compile surveys of subsectors of the financial corporations sector. The sectoral balance sheet is organized into asset and liability categories that are the same as, or consistent with, the categories of financial assets in the *1993 SNA*. The framework of the sectoral balance sheet embodies the "building block" approach of this manual, whereby data are classified by sector and type of financial instrument at disaggregated levels to provide flexibility in the use of the data for a broad range of analyses.

380. Sectoral balance sheet data are obtained from the accounting and, in some cases, administrative records of the institutional units within the financial subsector covered by the sectoral balance sheet. Data for some or all units in a particular subsector may need to be obtained from other sources or may need to be estimated. Data for each unit are classified into standard components in accordance with the sectorization, instrument classification, and accounting rules explained in Chapters 3-5 of this manual. The data for each unit are reported to the compilers of monetary and financial statistics, and the data for all units in the financial subsector are aggregated into a sectoral balance sheet.

381. The sectoral balance sheet contains separate columns for opening (beginning of period) and closing (end of period) stocks, as well as for financial flows arising from transactions, valuation changes, and OCVA during a particular period. Chapter 5 describes these three components of financial flows.

382. Financial assets and liabilities are classified by instrument and by creditor/debtor sector. The classification in the sectoral balance sheets follows that of the *Financial Account* of the *1993 SNA*, except that *loans* and *securities other than shares* are not dissagregated by maturity, which is a secondary classification in the *1993 SNA*. However, supplementary data disaggregated by maturity may be useful for the monetary statistics in the national context. The sectoral balance sheet also distinguishes between those liabilities that are included in the national definition of broad money and those that are excluded from that definition.

383. The liabilities section of the sectoral balance sheet shows *shares and other equity* on a book value basis, disaggregated by various components. However, use of the sectoral balance sheet data in compiling flow of funds accounts, as described in Chapter 8, requires that data be available for shares and other equity on a market-price basis, disaggregated by holding sector. The latter data are included as memorandum items to the sectoral balance sheet. (Chapter 5 discusses the valuation of liabilities in the form of shares and other equity.) The sectoral balance sheets disaggregate liabilities in the form of shares and other equity into funds contributed by owners, retained earnings, general and special reserves, SDR allocations (applicable only to the central bank), and valuation adjustment. *Funds contributed by owners* is the amount of the proceeds from the financial corporation's sale of shares to equity holders. The category of *retained earnings* shows all earnings (after-tax profit) from the overall operations of the financial subsector less any amount of earnings that have been allocated to *general and special reserves*, which is established as a capital cushion to cover operational and financial risks of corporations. *Valuation adjustment* pertains to adjustments arising from changes in the market values (or fair value equivalents) of assets and liabilities, resulting from changes in market prices of assets and liabilities and from changes in exchange rates used in converting foreign-currency-denominated positions into domestic currency amounts.

384. The sectoral balance sheet includes separate data categories for intrasectoral assets and liabilities—the financial subsector units' claims on and liabilities to other units within the subsector. Compilation of the corresponding survey involves consolidation of the sectoral balance sheet accounts. The consolidation nets out each unit's claims on and liabilities to other units within that subsector, resulting in a survey that shows only the financial subsector's claims on and liabilities to other sectors, including other financial subsectors, and nonresidents.

385. Claims on and liabilities to the individual financial corporations subsectors are presented as separate categories of sectoral balance sheet data for use in compiling the *DCS* and the *FCS* in which accounts between subsectors are consolidated.

386. The sectoral balance sheet is denominated in national currency units. All foreign-currency-denominated assets and liabilities are converted to national currency values using market or market-equivalent exchange rates, as Chapter 5 of this manual describes.

387. Table 7.1, at the end of this chapter, shows the format for the sectoral balance sheet for a financial corporations subsector. Some asset and liability categories shown in Table 7.1 do not apply to all subsectors of the financial corporations sector. For example, the central bank is the only financial corporations subsector that can hold monetary gold. Similarly, on the liabilities side, the central bank is almost always the only financial corporations subsector that issues currency.

388. The sectoral balance sheets and the accompanying memorandum items provide the data needed for the compilation of the surveys. Some of the memorandum items are needed for compiling the monetary and financial statistics in most or all countries. The other memorandum items are needed in some countries and are useful for more detailed analysis in most countries.

389. Data on central bank float (shown as a memorandum item) are needed for the compilation of the *DCS* for each country in which such float is provided by the central bank. Data on the market values (or fair values) of shares and other equity (also shown as memorandum items), disaggregated by holding sector, are necessary elements for the compilation of the flow of funds and related stock data described in Chapter 8.

390. In some countries, lending institutions may be required to exclude interest arrears (i.e., interest that is overdue for payment) from the valuation of loans, or they may be required to report the expected realizable values of their loan portfolios—that is, the values adjusted for expected loan losses. Neither type of adjustment—for interest arrears or expected loan losses—is recommended for the loan data shown in the sectoral balance sheets. However, memorandum items for (1) interest arrears on loans and (2) expected loan losses are recommended for use in obtaining alternative valuations of loan portfolios. As shown in the memorandum items in Table 7.1, it is recommended that the data on interest arrears and expected loan losses be disaggregated by sector, thereby facilitating the compilation of disaggregated loan data based on the alternative valuation methods. Such data are useful for supervisory purposes and macroeconomic analysis, regardless of whether the reporting of such data is mandated by law, regulation, or national practice.

391. Box 7.1 shows examples for further disaggregation of sectoral balance sheets that may be appropriate in a particular national context. In some countries, more disaggregated categories of the depository corporations' liabilities may be needed to provide data for monetary aggregates that are more narrowly defined than the national definition of broad money.

392. Even though the sectoral balance sheets provide the complete set of data necessary for the compilation of surveys and flow of funds, additional data are needed for macroeconomic analysis. Box 7.2, relating to financial derivatives and contingent items, gives examples of additional categories of data to supplement, or accompany, the sectoral balance sheets.

SURVEYS OF FINANCIAL CORPORATIONS

393. Illustrative surveys of the financial corporations sector are presented at the end of this chapter. These surveys utilize, and rearrange into analytical presentations, the data in the illustrative sectoral balance sheets that are shown in Appendix 3 of this manual. These surveys comprise those for the three subsectors of the financial corporations subsector, namely, the *CBS*, the *ODCS*, and the *OFCS*, and the two higher-level surveys based on them. As mentioned at the beginning of this chapter, the *CBS* and the *ODCS* are consolidated to obtain the *DCS*, and the three subsector surveys are consolidated to obtain the *FCS*. The surveys show both stocks and flows, with the latter broken down into their three components.

Box 7.1. Examples for Further Disaggregation of Sectoral Balance Sheets

Assets

Deposits
Other deposits by maturity (short- and long-term or other maturity breakdown)
Deposits with nonresidents by country of issuance

Securities other than shares
By maturity (short- and long-term or other maturity breakdown)
By type (certificates of deposit, commercial paper, bankers' acceptances, bills, bonds, etc.)
Securities under repurchase agreement
Nonresident securities by debtor country

Loans
By maturity (short- and long-term or other maturity breakdown)
Loans arising from repurchase agreements, by debtor sector/subsector
Nonresident loans by (1) debtor country and (2) type of debtor (IMF, other international organization, central bank, foreign government, etc.)

Financial derivatives
By major category (i.e., futures contract, other forward contract, or options contract) and subcategory.

Liabilities

Deposits
Other deposits by maturity (short- and long-term or other maturity breakdown)
Deposits of nonresidents by country of holder

Securities other than shares
By maturity (short- and long-term or other maturity breakdown)
By type (certificates of deposit, bankers' acceptances, commercial paper, etc.)

Loans
By maturity (short- and long-term or other maturity breakdown)
Loans arising from repurchase agreements, by creditor sector/subsector
Nonresident loans by (1) creditor country and (2) type of creditor (IMF, other international organization, central bank, foreign government, etc.)

Financial derivatives
By major category (i.e., futures contract, other forward contract, or option contract) and subcategory

Box 7.2. Examples of Supplementary Data

Assets

Financial derivatives: Notional values
By category of underlying asset (deposits, loans, securities, etc.)
By risk type (interest rate risk, exchange rate risk, etc.)

Liabilities

Financial derivatives: Notional values
By category of underlying asset (deposits, loans, securities, etc.)
By risk type (interest rate risk, exchange rate risk, etc.)

Contingent Items

Guarantees by category of guaranteed obligation (deposits, loans, securities, etc.)

Commitments by category (credit line, loan commitment, underwriting contract, etc.)

394. The survey for each financial corporations subsector is built around the accounting identity underlying the sectoral balance sheet and is structured to provide an analytic presentation of the intermediation role of the relevant subsector. For each survey, the asset side focuses on credit extended to nonresidents and to each of the various domestic sectors. The liability side of the *CBS* and the *ODCS* is structured to show those liabilities that are included in broad money and, for the *CBS*, to show the components of the monetary base. The liability side of the *FCS* separately identifies insurance technical reserves, since these form a substantial part of the liabilities of the other financial corporations subsector in many countries.

395. The subsector surveys share the following common characteristics:

- Foreign assets are presented on both a net and a gross basis, with breakdowns by instrument. Movements in net foreign assets provide an indication of the direct domestic monetary impact of the subsectors' transactions with the rest of the world.[43]

- Claims on central government are shown on both a net and a gross basis. The presentation on a net basis facilitates the analysis of financial corporations' financing of central government operations.

- Claims on domestic sectors other than central government are disaggregated into claims on (1) state and local government, (2) public nonfinancial corporations, (3) other nonfinancial corporations, and (4) other resident sectors, comprising households and NPISHs.

- Claims on and liabilities to each of the other subsectors of the financial corporations sector are separately identified to enable the consolidation of the subsector surveys in the *DCS* and the *FCS*.

- The primary disaggregation on the liabilities side is by instrument. For the *CBS* and the *ODCS*, a further distinction is made between those liabilities that are included in the national definition of broad money and those that are excluded, with further breakdowns by sector. This distinction is not relevant for the *OFCS*, because other financial corporations, by definition, cannot issue broad money liabilities.

- Unlike other categories of assets and liabilities, liabilities in the form of *shares and other equity* are neither sectorized nor netted out in the consolidation process. Rather, they are shown as a separate class of liabilities in order to provide a comprehensive view of the capital base of the institutional units in each subsector.

[43] The focus of the *CBS* with respect to foreign assets and liabilities is on all categories of claims on and liabilities to nonresidents without separate identification of international reserve assets. Guidance on international reserves data is given in *Data Template on International Reserves and Foreign Currency Liquidity—Operational Guidelines* (Provisional), October 1999 (Washington: IMF).

396. Claims on and liabilities to nonresidents and domestic sectors are obtained by aggregating the respective items in the sectoral balance sheets. While this is largely self-explanatory, the following should be noted:

- The *reserve deposits* component of *liabilities to other depository corporations* in the *CBS*, and the corresponding entry in the *ODCS*, comprises other depository corporations' transferable deposits, denominated in national and foreign currency, held at the central bank.

- In the *ODCS*, the *currency* component of *claims on central bank* pertains to other depository corporations' holdings of national currency.

- The *other items (net)* component in the *CBS* equals other liabilities less other assets. The *other liabilities* component is the sum of liabilities to resident sectors under the *other* category of *other accounts payable* and those liabilities under *insurance technical reserves* that are liabilities to resident sectors other than the central government and the other financial corporations' subsectors. The *other assets* component is the sum of claims on resident sectors under the *other* category of *other accounts receivable* and *nonfinancial assets*. In addition to these items, *other items (net)* for the *ODCS* and the *OFCS* includes a *consolidation adjustment* in which the claims on and liabilities to other institutional units within the subsector are netted out by deducting claims on other units within the subsector from liabilities to those units. The consolidation adjustment therefore reflects discrepancies among the data reported by individual units on their positions and transactions with other units in the subsector.

397. The *DCS* and the *FCS*, which are obtained by consolidating the relevant subsector surveys, have some of the features of the subsector surveys. *Foreign assets* and *claims on central government* are shown on both a net and a gross basis, and claims on other domestic sectors are broken down by sector.

398. The focus of the *DCS* is on broad money, which comprises currency outside depository corporations and the other categories of depository corporations' liabilities, broken down by sector, that are included in broad money. *Currency outside depository corporations* comprises *currency in circulation*, from the *CBS*, less the *currency* component of other depository corporations' *claims on the central bank* shown in the *ODCS*.

399. *Central bank float*, which is shown as a memorandum item on the sectoral balance sheet of the central bank, is deducted from the *transferable deposits* component of *broad money*, with a contra-entry in *other liabilities*. Central bank float represents the amount that the central bank has provided to depository corporations that have sent checks or other items for collection.

400. Liabilities that are not included in broad money are shown by category, and liabilities to the other financial corporations are shown separately (as "of which" items) to enable data consolidation in compiling the *FCS* directly from the *DCS* and *OFCS*.[44]

401. The *consolidation adjustment* in the *DCS* is shown as a separate component of *other items (net)* and is obtained as follows: (1) central bank liabilities to other depository corporations *less* other depository corporations' claims on the central bank in the form of reserve deposits and other claims *plus* (2) depository corporations' liabilities to the central bank *less* central bank claims on other depository corporations *plus* (3) the consolidation adjustment from the *ODCS*.

402. The *FCS* provides comprehensive data for the financial corporations sector's claims on and liabilities to all domestic sectors and nonresidents. The *FCS* contains the same asset categories as the *DCS*. However, the *FCS* contains considerably fewer subcategories of

[44] This presentation is necessary if, in compiling the *FCS*, the objective is to show all data used in consolidating the relevant subsector surveys. Such presentation has the virtue of transparency; it gives users access to all of the data involved in compiling the *FCS*. A streamlined presentation that excludes these "of which" items for claims on and liabilities to other financial corporations would not provide such access.

liabilities than in the *DCS*, because the *FCS* is not structured to show the liability components of broad money. In fact, some components of broad money—namely, other financial corporations' currency holdings and their holdings of deposits and securities issued by depository corporations—have been netted out in the consolidation of the financial corporations sectors' data in the *FCS*. The presentation in the liability section of the *FCS* also differs from the *DCS* in that the *FCS* contains a separate liability category for insurance technical reserves. This presentation reflects the significant contribution of such reserves to the total liabilities of the financial corporations sector in many countries and the usefulness of such data for analysis of the activities of the entire sector.

A MONETARY AUTHORITIES ACCOUNT

403. The *CBS* covers only central banking functions performed by the central bank. In some countries, however, certain central banking functions are performed wholly or partly by the central government. These include currency issuance, the holding of international reserves, and the conducting of transactions with the IMF.[45] In such situations, consideration could be given to compiling a monetary authorities account. In this account, data relating to central banking functions performed by the central government should be included along with the data in the *CBS*, and the contra-entries for the data pertaining to central government functions would be shown as adjustments (positive or negative) in a separate set of adjustment accounts that are not subsumed in *net claims on central government*. Alternatively, data on monetary authorities' activities outside the central bank may be shown as memorandum items accompanying the *CBS*.

ILLUSTRATIVE SURVEYS FOR THE FINANCIAL CORPORATIONS SECTOR

404. Illustrative surveys for the three subsectors of the financial corporations sector, and the *DCS* and the *FCS*, are shown in Tables 7.2-7.6. The surveys embody the data in the illustrative sectoral balance sheets in Appendix 3 of this manual.

[45] The recommended statistical treatment of accounts with the IMF is described in Appendix I to this manual.

Table 7.1. Sectoral Balance Sheet for a Financial Corporations Subsector

Assets (By type of claim and debtor)	Opening Stock	Transactions	Valuation Changes	Other Changes in Volume	Closing Stock
Monetary gold and SDRs					
Monetary gold					
SDRs					
Currency and deposits					
Currency					
National 1/					
Foreign					
Transferable deposits					
In national currency					
Central bank					
Other depository corporations					
Other financial corporations 2/					
Nonresidents					
In foreign currency					
Central bank					
Other depository corporations					
Other financial corporations 2/					
Nonresidents					
Other deposits					
In national currency					
Central bank					
Other depository corporations					
Other financial corporations 2/					
Nonresidents					
In foreign currency					
Central bank					
Other depository corporations					
Other financial corporations 2/					
Nonresidents					
Securities other than shares					
Central bank					
Other depository corporations					
Other financial corporations					
Central government					
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
Nonresidents					
Loans					
Central bank					
Other depository corporations					
Other financial corporations					
Central government					
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
Nonresidents					

Table 7.1. Sectoral Balance Sheet for a Financial Corporations Subsector (continued)

Assets (By type of claim and debtor)	Opening Stock	Transactions	Valuation Changes	Other Changes in Volume	Closing Stock
Shares and other equity					
Central Bank					
Other depository corporations					
Other financial corporations					
Pubic nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
Nonresidents					
Insurance technical reserves					
Other financial corporations					
Nonresidents					
Financial derivatives					
Central bank					
Other depository corporations					
Other financial corporations					
Central government					
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
Nonresidents					
Other accounts receivable					
Trade credit and advances					
Central bank					
Other depository corporations					
Other financial corporations					
Central government					
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
Nonresidents					
Other					
Resident sectors					
Nonresidents					
Nonfinancial assets					
Total assets					

Table 7.1. Sectoral Balance Sheet for a Financial Corporations Subsector (continued)

Liabilities (By type of claim and creditor)	Opening Stock	Transactions	Valuation Changes	Other Changes In Volume	Closing Stock
Currency in circulation					
Deposits included In broad money					
Transferable deposits					
In national currency					
Other financial corporations					
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
In foreign currency					
Other financial corporations					
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
Other deposits					
In national currency					
Other financial corporations					
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
In foreign currency					
Other financial corporations					
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
Deposits excluded from broad money					
Transferable deposits					
In national currency					
Central bank					
Other depository corporations					
Other financial corporations					
Central government 3/					
State and local government 4/					
Public nonfinancial corporations 4/					
Other nonfinancial corporations 4/					
Other resident sectors 4/					
Nonresidents					
In foreign currency					
Central bank					
Other depository corporations					
Other financial corporations					
Central government 3/					
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
Nonresidents					

Table 7.1. Sectoral Balance Sheet for a Financial Corporations Subsector (continued)

Liabilities (By type of claim and creditor)	Opening Stock	Transactions	Valuation Changes	Other Changes in Volume	Closing Stock
Other deposits					
In national currency					
Central bank					
Other depository corporations					
Other financial corporations					
Central government 3/					
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
Nonresidents					
In foreign currency					
Central bank					
Other depository corporations					
Other financial corporations					
Central government 3/					
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
Nonresidents					
Securities other than shares, included in broad money					
In national currency					
Other financial corporations					
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
In foreign currency					
Other financial corporations					
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
Securities other than shares, excluded from broad money					
In national currency					
Central bank					
Other depository corporations					
Other financial corporations					
Central government					
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
Nonresidents					

Table 7.1. Sectoral Balance Sheet for a Financial Corporations Subsector (continued)

Liabilities (By type of claim and creditor)	Opening Stock	Transactions	Valuation Changes	Other Changes in Volume	Closing Stock
In foreign currency					
Central bank					
Other depository corporations					
Other financial corporations					
Central government					
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
Nonresidents					
Loans 5/					
Central bank					
Other depository corporations					
Other financial corporations					
Central government					
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
Nonresidents					
Insurance technical reserves					
Net equity of households in life insurance reserves					
Residents					
Nonresidents					
Net equity of households in pension funds					
Residents					
Nonresidents					
Prepayment of premiums and reserves against outstanding claims					
Central bank					
Other depository corporations					
Other financial corporations					
Central government					
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
Nonresidents					

Table 7.1. Sectoral Balance Sheet for a Financial Corporations Subsector (continued)					
Liabilities (By type of claim and creditor)	**Opening Stock**	**Transactions**	**Valuation Changes**	**Other Changes in Volume**	**Closing Stock**
Financial derivatives 5/					
Central bank					
Other depository corporations					
Other financial corporations					
Central government					
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
Nonresidents					
Other accounts payable					
Trade credit and advances					
Central bank					
Other depository corporations					
Other financial corporations					
Central government					
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
Nonresidents					
Other					
Resident sectors					
Nonresidents					
Shares and other equity					
Funds contributed by owners					
Retained earnings					
General and special reserves					
SDR allocations					
Valuation adjustment					
Total liabilities					

Table 7.1. Sectoral Balance Sheet for a Financial Corporations Subsector (concluded)

Memorandum Items	Opening Stock	Transactions	Valuation Changes	Other Changes in Volume	Closing Stock
Assets					
1. Central bank float (applicable to central bank only) 6/					
2. Loans: Of which accrued interest					
3. Loans: Of which interest arrears 7/					
Central bank					
Other depository corporations					
Other financial corporations					
Central government					
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
Nonresidents					
4. Loans: Of which expected losses 8/					
Central bank					
Other depository corporations					
Other financial corporations					
Central government					
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
Nonresidents					
Liabilities					
1. Loans: Of which accrued interest					
2. Loans: Of which interest arrears 7/					
3. Shares and other equity: Market value by holding sector 9/					
Central bank					
Other depository corporations					
Other financial corporations					
Central government					
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
Nonresidents					

Note: In the table, social security funds are included in central government or state and local government as appropriate. Alternatively, social security funds may be classified as a separate subsector of general government and identified separately in the sectoral balance sheet.

1/ National currency includes that issued by the central bank and central government and, in exceptional cases, by other depository corporations.
2/These categories would apply, for example, to other financial intermediaries that accept deposits from other depository corporations but do not accept any deposits included in the national definition of broad money. If these financial corporations begin to accept deposits included in the national definition of broad money, they should be reclassified as other depository corporations.
3/In the sectoral balance sheet, as shown, central government deposits are assumed to be excluded from broad money.
4/These categories include transferable deposits that are held in other depository corporations that are not operating and are in the process of being liquidated or reorganized.
5/ In exceptional circumstances, some types of loans might be included in the national definition of broad money. If so, loans would need to be disaggregated into separate categories for (1) loans included in broad money and (2) loans excluded from broad money. Similarly, if some types of financial derivatives were included in the national definition of broad money, separate categories would be needed for (1) financial derivatives included in broad money and (2) financial derivatives excluded from broad money.
6/ Pertains only to float arising from those items in the process of collection that (1) are associated with transferable deposits included in broad money and (2) are items for which the central bank has provided the funds to the other depository corporations that sent the items for collection, but have not yet been collected from the other depository corporations on which the items were drawn.
7/ Pertains to either (1) all interest that is overdue for payment or (2) all interest that has been overdue for a specified period (for example, 60 days or longer). The specific rule applied in the national context should be indicated in a footnote.
8/ Comprises the amount of loan loss provisions and all expected loans losses not covered by the loss provisions.
9/ Fair values should be used for shares and other equity that are not traded.

Table 7.2. Central Bank Survey	Opening Stock	Transactions	Valuation Changes	Other Changes in Volume	Closing Stock
Net foreign assets	**12886**	**3368**	**1211**	7	**17472**
Claims on nonresidents	**16200**	**3502**	**2389**	**3**	**22094**
Monetary gold and SDR holdings	430	70	47	3	550
Foreign currency	29	15	3		47
Deposits	4606	1556	691		6853
Securities other than shares	3802	648	570		5020
Loans	6508	1128	976		8612
Financial derivatives	751	91	113		955
Other	74	-6	-11		57
less : **Liabilities to nonresidents**	**-3314**	**-134**	**-1178**	**4**	**-4622**
Deposits	-1917	-146	-30	4	-2089
Securities other than shares	-77	5			-72
Loans	-1105		-1001		-2106
Financial derivatives	-126	-19	-175		-320
Other	-89	26	28		-35
Claims on other depository corporations	**1654**	**-105**	**11**		**1560**
Net claims on central government	**3498**	**-1429**	**630**		**2699**
Claims on central government	**4514**	**-1107**	**630**		**4037**
Securities	4105	-1109	616		3612
Other claims	409	2	14		425
less: **Liabilities to central government**	**-1016**	**-322**			**-1338**
Deposits	-1000	-315			-1315
Other liabilities	-16	-7			-23
Claims on other sectors	**432**	**593**	**4**	**-10**	**1019**
Other financial corporations	110	352	-3		459
State and local government	33	-6			27
Public nonfinancial corporations	179	251	5	-5	430
Other nonfinancial corporations	93	-5	2	-3	87
Other resident sectors	17	1		-2	16
Monetary base	**19113**	**2380**	**-219**	**9**	**21283**
Currency in circulation	**4007**	**250**			**4257**
Liabilities to other depository corporations	**11387**	**1736**	**-227**	**12**	**12908**
Reserve deposits	10979	1604	-261	7	12329
Other liabilities	408	132	34	5	579
Deposits included in broad money	**3719**	**394**	**8**	**-3**	**4118**
Transferable deposits	**3269**	**423**	**8**	**-3**	**3697**
Other financial corporations	54	17	8	-3	76
State and local government					
Public nonfinancial corporations	48	13			61
Other nonfinancial corporations					
Other resident sectors	3167	393			3560
Other deposits	**450**	**-29**			**421**
Other financial corporations	70	5			75
State and local government	230	-45			185
Public nonfinancial corporations	150	11			161
Other nonfinancial corporations					
Other resident sectors					
Securities other than shares, included in broad money					
Other financial corporations					
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
Deposits excluded from broad money					
Of which: Other financial corporations					
Securities other than shares, excluded from broad money					

Of which: Other financial corporations					
Loans					
Of which: Other financial corporations					
Financial derivatives	**79**	**-3**	**11**	**-5**	**82**
Of which: Other financial corporations	22	-5	5	-5	17
Trade credit and advances	**82**	**15**			**97**
Of which: Other financial corporations	24	11			35
Shares and other equity	**388**	**61**	**2057**		**2506**
Funds contributed by owners	122				122
Retained earnings	95	52			147
General and special reserves	46	9			55
SDR allocations	37		4		41
Valuation adjustment	88		2053		2141
Other items (net)	**-1192**	**-26**	**7**	-7	**-1218**
Other liabilities	**69**	**6**	**16**	**-14**	**77**
less: **Other assets**	**-1261**	**-32**	**-9**	7	**-1295**

Table 7.3. Other Depository Corporations Survey					
	Opening Stock	Transactions	Valuation Changes	Other Changes in Volume	Closing Stock
Net foreign assets	**10332**	**-54**	**1925**	**6**	**12209**
Claims on nonresidents	**16088**	**357**	**2263**	**12**	**18720**
Foreign currency	1234	212	143	3	1592
Deposits	13854	105	1988		15947
Securities other than shares	340	7	51		398
Loans	412	31	70	2	515
Financial derivatives	35	-12	-5	2	20
Other	213	14	16	5	248
less: **Liabilities to nonresidents**	**-5756**	**-411**	**-338**	**-6**	**-6511**
Deposits	-2178	-171	-112		-2461
Securities other than shares	-1085	8	-209	-3	-1289
Loans	-596		2	-2	-596
Financial derivatives	-112	14	-31	-1	-130
Other	-1785	-262	12		-2035
Claims on central bank	**10798**	**1885**	**82**	**6**	**12771**
Currency	357	71	-2	2	428
Reserve deposits	10267	1700	74	2	12043
Other claims	174	114	10	2	300
Net claims on central government	**8697**	**114**	**98**	**5**	**8914**
Claims on central government	**8805**	**112**	**99**	6	**9022**
Securities other than Shares	8796	111	99	6	9012
Other claims	9	1			10
less: **Liabilities to central government**	**-108**	**2**	**-1**	**-1**	**-108**
Deposits	-56	7	-1		-50
Other liabilities	-52	-5		-1	-58
Claims on other sectors	**98371**	**-163**	**544**	**-511**	**98241**
Other financial corporations	160	-1		2	161
State and local government	128	2		2	132
Public nonfinancial corporations	5738	208	69	-51	5964
Other nonfinancial corporations	72124	-431	300	-289	71704
Other resident sectors	20221	59	175	-175	20280
Liabilities to central bank	**1595**	**31**	**15**		**1641**
Deposits included in broad money	**91437**	**2775**	**2520**		**96732**
Transferable deposits	**39418**	**4120**	**31**		**43569**
Other financial corporations	8709	870	5		9584
State and local government	448	45	2		495
Public nonfinancial corporations	6534	823	4		7361
Other nonfinancial corporations	13022	1320	12		14354
Other resident sectors	10705	1062	8		11775
Other deposits	**52019**	**-1345**	**2489**		**53163**
Other financial corporations	60	9	3		72
State and local government	54	-2	1		53
Public nonfinancial corporations	120	9	3		132
Other nonfinancial corporations	15012	-1730	397		13679
Other resident sectors	36773	369	2085		39227
Securities other than shares, included in broad money	**27097**	**37**	**4167**		**31301**
Other financial corporations	101	8	24		133
State and local government	21	-7	3		17
Public nonfinancial corporations	473	14	84		571
Other nonfinancial corporations	13700	51	2095		15846
Other resident sectors	12802	-29	1961		14734
Deposits excluded from broad money	**1087**	**13**	**40**		**1140**
Of which: Other financial corporations	312	-10	4		306
Securities other than shares, excluded from broad money	**530**	**107**	**111**	**8**	**756**
Of which: Other financial corporations	106	11	19	2	138
Loans					

Of which: Other financial corporations					
Financial derivatives	**108**	**16**	**16**	**2**	**142**
Of which: Other financial corporations	12	2	-2		12
Trade credit and advances	**30**	**-1**		**3**	**32**
Of which: Other financial corporations	4	8			12
Shares and other equity	**20100**	**88**	**-4060**	**46**	**16174**
Funds contributed by owners	7896			24	7920
Retained earnings	6342	76		12	6430
General and special reserves	4732	12		10	4754
Valuation adjustment	1130		-4060		-2930
Other items (net)	**-13786**	**-1284**	**-160**	**-553**	**-15783**
Other liabilities	**1873**	**-125**		**-540**	**1208**
less: **Other assets**	**-15672**	**-1228**	**-216**	**3**	**-17113**
plus: **Consolidation adjustment**	**13**	**69**	**56**	**-16**	**122**

Table 7.4. Other Financial Corporations Survey

	Opening Stock	Transactions	Valuation Changes	Other Changes in Volume	Closing Stock
Net foreign assets	**5060**	**810**	**2122**	**-6**	**7986**
Claims on nonresidents	**15753**	**1160**	**2161**	**-12**	**19062**
Foreign currency	762	22	117	-3	898
Deposits	1252	-61	188		1379
Securities other than shares	12389	1213	1797		15399
Loans	512	-17	59	-2	552
Financial derivatives	32	5	7	-2	42
Other	806	-2	-7	-5	792
less: **Liabilities to nonresidents**	**-10693**	**-350**	**-39**	6	**-11076**
Deposits					
Securities other than shares	-59	-8	19	3	-45
Loans	-11	-3	-4	2	-16
Financial derivatives	-12	-13	-3	1	-27
Other	-10611	-326	-51		-10988
Claims on depository corporations	**9581**	**102**	**25**	**-27**	**9681**
Currency	123	-14		-2	107
Other claims	9458	116	25	-25	9574
Net claims on central government	**22649**	**447**	**11**	**-5**	**23102**
Claims on central government	**22676**	**458**	**12**	**-6**	**23140**
Securities	22676	458	12	-6	23140
Other claims					
less: **Liabilities to central government**	**-27**	**-11**	**-1**	**1**	**-38**
Deposits					
Other liabilities	-27	-11	-1	1	-38
Claims on other sectors	**92560**	**5631**	**41**	**-86**	**98146**
State and local government	3288	147		-2	3433
Public nonfinancial corporations	8451	-302	21	-33	8137
Other nonfinancial corporations	77564	5698	12	-32	83242
Other resident sectors	3257	88	8	-19	3334
Deposits					
Of which: Depository corporations					
Securities other than shares	**288**	**28**	**-28**	**-6**	**282**
Of which: Depository corporations	3	6			9
Loans	**41**	**-6**	**2**		**37**
Of which: Depository corporations	36	-10	4		30
Financial derivatives	**89**	**26**	**17**	**-5**	**127**
Of which: Depository corporations	78	21	13	-3	109
Insurance technical reserve	**129102**	**6831**	**1620**		**137553**
Net equity of households in life insurance reserves	22357	2221			24578
Net equity of households in pension funds	99999	4365	1620		105984
Prepayment of premiums and reserves against outstanding claims	6746	245			6991
Of which: Depository corporations	30	14			44
Trade credit and advances	**81**	**1**		**-3**	**79**
Of which: Depository corporations	29	6			35
Shares and other equity	**11336**	**121**	**535**	**-46**	**11946**
Funds contributed by owners	5676			-24	5652
Retained earnings	4572	109		-12	4669
General and special reserves	432	12		-10	434
Valuation adjustment	656		535		1191
Other items (net)	**-11087**	**-11**	**53**	**-64**	**-11109**
Other liabilities	**187**	**27**	**56**	**-64**	**206**
less: **Other assets**	**-11266**	**-57**	**10**	**2**	**-11311**
plus: **Consolidation adjustment**	**-8**	**19**	**-13**	**-2**	**-4**

Table 7.5. Depository Corporations Survey

	Opening Stock	Transactions	Valuation Changes	Other Changes in Volume	Closing Stock
Net foreign assets	**23218**	**3314**	**3136**	**13**	**29681**
Claims on nonresidents	**32288**	**3859**	**4652**	**15**	**40814**
***less*: Liabilities to nonresidents**	**-9070**	**-545**	**-1516**	**-2**	**-11133**
Domestic claims	**110998**	**-885**	**1276**	**-516**	**110873**
Net claims on central government	**12195**	**-1315**	**728**	**5**	**11613**
Claims on central government	**13319**	**-995**	**729**	**6**	**13059**
***less:* Liabilities to central government**	**-1124**	**-320**	**-1**	**-1**	**-1446**
Claims on other sectors	**98803**	**430**	**548**	**-521**	**99260**
Other financial corporations	270	351	-3	2	620
State and local government	161	-4		2	159
Public nonfinancial corporations	5917	459	74	-56	6394
Other nonfinancial corporations	72217	-436	302	-292	71791
Other resident sectors	20238	60	175	-177	20296
Broad money liabilities	**125770**	**3340**	**6697**	**-5**	**135802**
Currency outside depository corporations	**3650**	**179**	**2**	**-2**	**3829**
Transferable deposits	**42554**	**4498**	**39**	**-3**	**47088**
Other financial corporations	8763	887	13	-3	9660
State and local government	448	45	2		495
Public nonfinancial corporations	6582	836	4		7422
Other nonfinancial corporations	13022	1320	12		14354
Other resident sectors	13872	1455	8		15335
Less: Central bank float	-133	-45			-178
Other deposits	**52469**	**-1374**	**2489**		**53584**
Other financial corporations	130	14	3		147
State and local government	284	-47	1		238
Public nonfinancial corporations	270	20	3		293
Other nonfinancial corporations	15012	-1730	397		13679
Other resident sectors	36773	369	2085		39227
Securities other than shares, included in broad money	**27097**	**37**	**4167**		**31301**
Other financial corporations	101	8	24		133
State and local government	21	-7	3		17
Public nonfinancial corporations	473	14	84		571
Other nonfinancial corporations	13700	51	2095		15846
Other resident sectors	12802	-29	1961		14734
Deposits excluded from broad money	**1087**	**13**	**40**		**1140**
Of which: Other financial corporations	312	-10	4		306
Securities other than shares, excluded from broad money	**530**	**107**	**111**	**8**	**756**
Of which: Other financial corporations	106	11	19	2	138
Loans					
Of which: Other financial corporations					
Financial derivatives	**187**	**13**	**27**	**-3**	**224**
Of which: Other financial corporations	34	-3	3	-5	29
Trade credit and advances	**112**	**14**		**3**	**129**
Of which: Other financial corporations	28	19			47
Shares and other equity	**20488**	**149**	**-2003**	**46**	**18680**
Other items (net)	**-13958**	**-1207**	**-460**	**-552**	**-16177**
Other liabilities (includes central bank float)	**2075**	**-74**	**16**	**-554**	**1463**
***less:* Other assets**	**-16933**	**-1260**	**-225**	**10**	**-18408**
***plus:* Consolidation adjustment**	**900**	**127**	**-251**	**-8**	**768**
Memorandun item: Central bank float	133	45			178

Table 7.6. Financial Corporations Survey	Opening Stock	Transactions	Valuation Changes	Other Changes in Volume	Closing Stock
Net foreign assets	**28278**	**4124**	**5258**	**7**	**37667**
Claims on nonresidents	**48041**	**5019**	**6813**	**3**	**59876**
***less*: Liabilities to nonresidents**	**-19763**	**-895**	**-1555**	**4**	**-22209**
Domestic claims	**225937**	**4842**	**1331**	**-609**	**231501**
Net claims on central government	**34844**	**-868**	**739**		**34715**
Claims on central government	**35995**	**-537**	**741**		**36199**
***less:* Liabilities to central government**	**-1151**	**-331**	**-2**		**-1484**
Claims on other sectors	**191093**	**5710**	**592**	**-609**	**196786**
State and local government	3449	143			3592
Public nonfinancial corporations	14368	157	95	-89	14531
Other nonfinancial corporations	149781	5262	314	-324	155033
Other resident sectors	23495	148	183	-196	23630
Currency outside financial corporations	**3527**	**193**	**2**		**3722**
Deposits	**86905**	**2246**	**2548**		**91699**
Securities other than shares	**27705**	**147**	**4207**		**32059**
Loans	**5**	**4**	**-2**		**7**
Financial derivatives	**164**	**21**	**28**		**213**
Insurance technical reserves	**129072**	**6817**	**1620**		**137509**
Trade credit and advances	**136**	**-10**			**126**
Shares and other equity	**31824**	**270**	**-1468**		**30626**
Other items (net)	**-25123**	**-722**	**-346**	**-602**	**-26793**
Other liabilities	**2262**	**-47**	**72**	**-618**	**1669**
***less:* Other assets**	**-28199**	**-1317**	**-215**	**12**	**-29719**
***plus:* Consolidation adjustment**	**814**	**642**	**-203**	**4**	**1257**

VIII. Financial Statistics

INTRODUCTION

405. The financial statistics covered in this chapter have broader sectoral coverage than the monetary statistics described in Chapter 7. The scope of the monetary statistics is limited to the assets and liabilities of the financial corporations sector and its subsectors. In contrast, the financial statistics encompass all financial stocks and flows among all sectors of the economy and between these sectors and the rest of the world.

406. The financial statistics are developed within the framework of the *1993 SNA,* which provides for comprehensive coverage of production, distribution, and all nonfinancial and financial stocks and flows for the total economy as well as for each of its sectors. The broad components of the *1993 SNA* are the *current accounts*, *accumulation accounts*, and *balance sheets* that together provide an integrated system for measuring economic flows and the resulting stocks of nonfinancial and financial assets and liabilities.

407. This chapter provides a brief orientation to the parts of the *1993 SNA* that link directly or indirectly to financial statistics. The focus is on the accumulation accounts, consisting of the *capital account*, the *financial account*, and the *other changes in assets account,* which is subdivided into the *revaluation account* and the *OCVA account*. Taken together, the capital account and the financial account cover all transactions that involve acquisition and disposal of nonfinancial and financial assets and liabilities in the economy. The transactions data in the financial account, coupled with the data in the revaluation account and the OCVA account, cover the financial flows that constitute the period-to-period changes in stocks of financial assets and liabilities in the economy.

408. In addition to the accumulation accounts, the financial statistics include the flow of funds. Fully articulated flow of funds statements are, in essence, extensions of the financial account into three-dimensional matrices that show the transactions in financial assets and liabilities among sectors/subsectors and among these sectors/subsectors and nonresidents. Flow of funds statements sometimes cover both financial and capital transactions, thereby providing a link to the capital account of the *1993 SNA*. Parallel stock presentations can also accompany flow of funds statements.

409. This manual is not prescriptive with respect to the presentation of flow of funds that countries should adopt. Rather, it presents three variants of flow of funds, ranging from rudimentary to detailed, that countries might choose to adopt depending on their circumstances, resource availability, and statistical priorities. The sectoral balance sheets described in Chapter 7 provide the basic data for the financial corporations' components of the detailed flow of funds statement presented in this manual. In recognition that the development of a detailed statement will be a long-term and costly effort for many countries, this manual also presents less detailed variants of the flow of funds. These less detailed presentations can be built around existing macroeconomic data sets, such as government finance and balance of payments statistics, as well as the sectoral balance sheets described in Chapter 7.

410. The detailed flow of funds presentation integrates the financial transactions data for financial corporations and for the other sectors—general government, public and other nonfinancial corporations, households, and nonprofit institutions serving households—to facilitate analysis of the direction and amount of transactions across all sectors of the economy. Data on financial stocks can be presented in a matrix format that is identical to the detailed flow of funds presentation. Period-to-period changes in the entries in the presentation for financial stocks represent total flows, arising from revaluations and OCVA, as well as from transactions in financial assets and liabilities.

THE ACCOUNTS OF THE 1993 *SNA*

THE STRUCTURE OF THE ACCOUNTS

411. The *1993 SNA* contains a consistent and integrated set of economic accounts that cover all institutional sectors and subsectors of the economy and the economic relationships of an economy with the rest of the world (ROW). This comprehensive accounting framework is designed for a broad range of analyses covering production, generation, and distribution of income, uses of income, capital formation, and financial activities. The *SNA* contains a full set of interrelated accounts for transactions and other flows, as well as balance sheets that show the stocks of nonfinancial assets, financial assets, and liabilities. The balance sheets are fully integrated with the other accounts in that the transactions and other flows during the period completely explain changes in balance sheets from the beginning of the accounting period to the end. Box 8.1 gives an outline of the main structure of the accounts for an economy and their interrelationships.

412. The main elements of the accounts of the *SNA* for the economy can be presented as equations that show the internal relationships among main aggregates for the total economy. The basic equations can be combined and rearranged to highlight saving-capital formation relationships and links between the domestic economy and the ROW. Box 8.2 presents the equations relating to the principal accounts, and Box 8.3 presents saving-capital formation relationships and macroeconomic links between the domestic economy and the ROW. The full set of interrelated accounts for the economy and its main institutional sectors, as well as for the ROW, appears in Tables 8.1-8.5 at the end of this chapter.

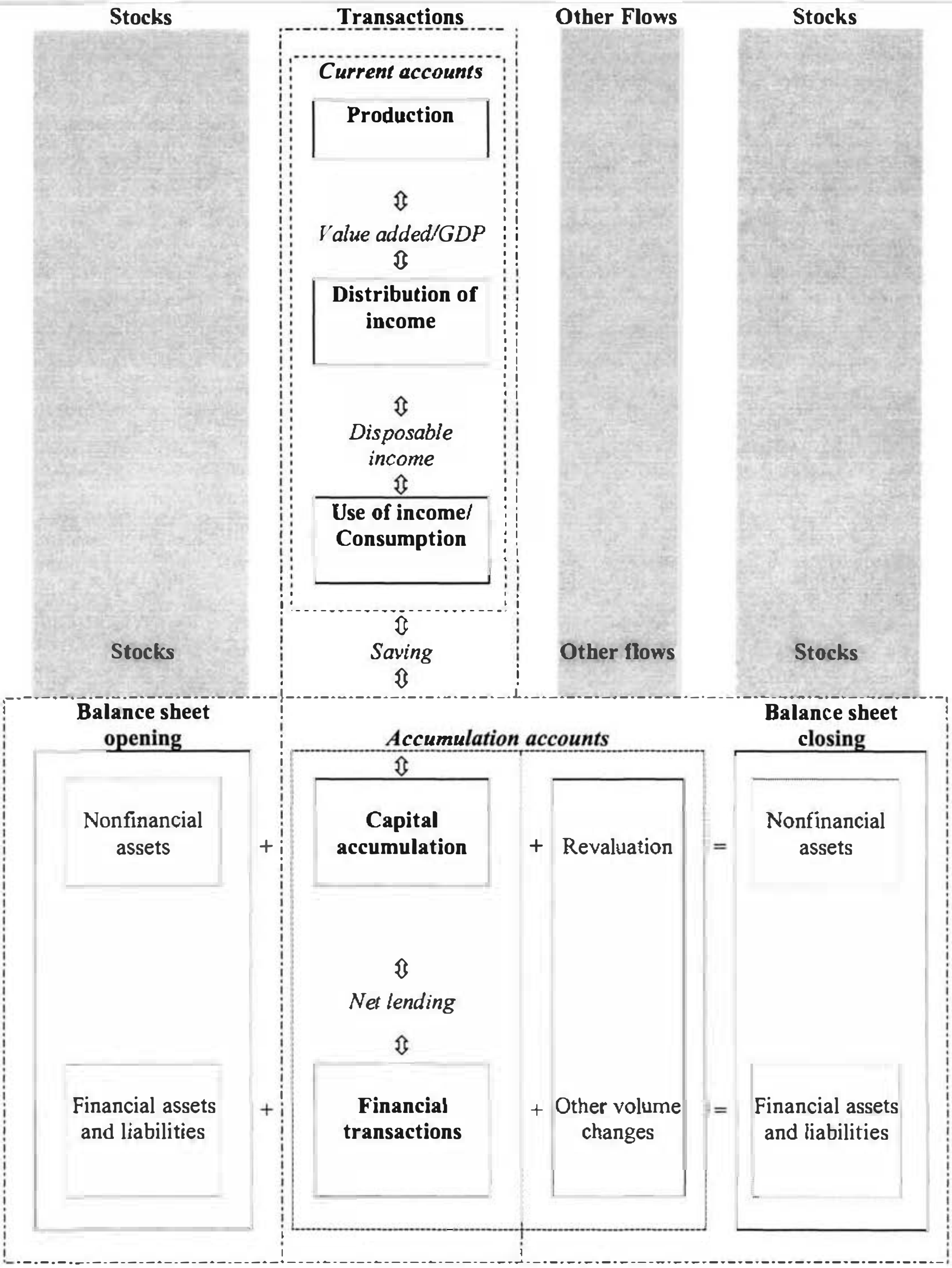
413. The *SNA* groups transactions into two main sets of accounts—the *current accounts* and the transactions part of the *accumulation accounts*. *Current accounts* record production, generation, and distribution of income, as well as uses of income. Within the current accounts, resources and uses are recorded for each sector and for the total economy. Within each of the current accounts, a balancing item[46] is calculated as resources *less* uses. The balancing item from one account is carried forward as a resource in the next account. The major balancing items of the current accounts for the total economy are GDP, gross national income (GNI), gross national disposable income (GNDI), and gross saving. The corresponding balancing items for institutional sectors are value added, balance of primary incomes, disposable income, and saving. Each of these gross balancing items has a corresponding net item that is calculated by subtracting consumption of fixed capital from the gross amount. The transactions recorded in the current accounts often entail counterpart entries in the capital and financial accounts. Every resource in the current account corresponds to an increase in economic value available to the owning unit, and every use corresponds to a decrease. Thus, resources increase the net worth of a unit, and uses decrease net worth. The final balancing item of the current accounts—saving—is that part of income that is not used for final consumption expenditure. Saving is the starting point for the *accumulation accounts* and, together with net capital transfers, represents resources available for financing capital formation, adding to financial assets, and reducing liabilities.[47] Accumulation accounts cover changes in stocks of nonfinancial and financial assets, in liabilities, and in net worth caused by transactions and other events. The accumulation accounts show changes in assets on the left side of the account and liabilities and net worth on the right side.

414. *Balance sheets* cover the stock of nonfinancial and financial assets and liabilities, as well as the net worth of institutional sectors and the economy. In the balance sheets, stocks of assets are shown on the left side of the account,

[46]Balancing items are accounting constructs that define key economic concepts that cannot be observed or measured independently of the other entries in the account.

[47]Chapter II of the 1993 *SNA* includes a summary description of the current accounts, and Chapters VI-IX provide a complete description.

Box 8.1. Outline of the Accounts of the 1993 *SNA* and Their Interrelationships



and stocks of liabilities and net worth are shown on the right side. Because of their importance for broad financial analysis and the construction of flow of funds accounts, the balance sheet and accumulation accounts are described in greater detail later in this chapter.

415. The accounts constitute two interconnected closed sets of accounts, as indicated in Box 8.1. The first set is the sequence of accounts that records economic flows arising from transactions, while the second set represents the balance sheets and the accumulation accounts. These two sets are interconnected through the capital and financial accounts that are common to both. The first set, the sequence of accounts for transactions, constitutes a closed system in the sense that the total of debit entries must equal the total of credit entries without any residual in accordance with the double-entry bookkeeping principle that is the basis for recording transactions in the *SNA*. Consequently, the number of balancing items is one *less* than the number of accounts, and for the same reason all balancing items can be calculated either from "above" or from "below" in the sequence. The second set constitutes a closed system in the sense that the accumulation accounts explain completely all changes in balance sheets between the beginning and the end of the accounting period.

416. The *current accounts*, shown in Box 8.2, comprise the production account, the distribution of income account, and the use of income account. These are described below:

- *Production account.* Value added and GDP represent the income or economic value created through the production process, that is, by converting intermediate consumption into output of goods and services (equation 1).

- *Primary distribution of income account.* These accounts show how the value generated through the production process is distributed to labor and capital and to government in the form of wages and salaries, operating surplus/mixed incomes, and taxes on production (as far as they are included in the valuation of output) (equation 2). They also show how these primary incomes are further distributed to residents and the ROW based on ownership (equation 3). GNI measures the total primary income accruing to residents. It is defined as the sum of GDP, net compensation of employees receivable from abroad, and net property income receivable from abroad.

- *Secondary distribution of income account.* GNDI measures the income that can be used for final consumption or saving and is defined as the sum of GNI and net current transfers receivable from abroad (equation 4).

- *Use of income account.* The use of income account measures gross saving as the balance remaining after the deduction of final consumption expenditure from GNDI, and net saving as gross saving minus consumption of fixed capital (equation 5).

417. The *accumulation accounts* consist of the capital account, the financial account, and the other changes in assets account. The other changes in assets account comprises two subaccounts—the revaluation account and the OCVA account.

- *Capital account.* This account records acquisitions and disposals of nonfinancial assets as a result of transactions with other units or internal bookkeeping transactions linked to production (own account capital formation, changes in inventories, and consumption of fixed capital), and measures the changes in net worth as a result of saving and capital transfers receivable from abroad. The balancing item is net lending or net borrowing, depending on whether saving *plus* capital transfers is *less* than the net acquisition of nonfinancial assets (equation 6).

- *Financial account.* This account records the acquisition and disposal of financial assets and liabilities, and shows how net lending or net borrowing from the capital account is reflected in transactions in these financial items (equation 7). The financial

Box 8.2. Relationships Between Main *SNA* Aggregates for the Total Economy

Current accounts	**Production**	1. Output at basic prices - Intermediate consumption = Value added + Taxes on products, net = **Gross domestic product**
	Primary distribution of income	2. **Gross domestic product** = Compensation of employees + Taxes - Subsidies + Gross operating surplus/mixed income 3. **Gross national income** = Gross domestic product + Compensation of employees (net, from abroad) + Property income (net, from abroad)
	Secondary distribution of income	4. **Gross national disposable income** = Gross national income + Current transfers (net) from abroad
	Use of income	5. **Gross national disposable income** -Households final consumption expenditure - NPISHs final consumption expenditure - Government final consumption expenditure = **Gross saving** - Consumption of fixed capital = **Net saving**
Accumulation Accounts	**Capital**	6. Net saving + Capital transfers (net) from abroad **= Changes in net worth due to saving and capital transfers** - Net capital formation - Acquisitions - Disposals of nonproduced nonfinancial assets **= Net lending/borrowing** (Net capital formation = Gross capital formation - Consumption of fixed capital = Net fixed capital formation + Changes in inventories + Acquisition less disposals of valuables)
	Financial	7. **Net lending/borrowing** = Net acquisition of financial assets - Net incurrence of liabilities
	Revaluation	8. **Changes in net worth arising from holding gains/losses on** nonfinancial assets, financial assets, and liabilities
	OCVA	9. **Changes in net worth arising from other changes in volume** of nonfinancial assets and financial assets and liabilities
Balance sheets	**Opening balance sheet**	10. Opening nonfinancial assets + Opening financial assets -Opening liabilities **= Opening net worth**
	+ Changes in stock positions	Changes in net worth as a result of: Savings and capital transfers Revaluation of nonfinancial assets, and financial assets and liabilities Other changes in volume of nonfinancial assets and financial assets and liabilities
	= Closing balance sheet	**Closing net worth =** Closing nonfinancial assets + Closing financial assets – Closing liabilities
Memo: Transaction accounts	**Supply and use of goods and services**	11a. Output + Imports + Taxes on products, net = Intermediate consumption + Households' final consumption expenditure + NPISHs' final consumption expenditure + Government final consumption expenditure + Gross capital formation + Exports 11b. **Gross domestic product** = Households' final consumption expenditure + NPISHs' final consumption expenditure + Government final consumption expenditure + Gross capital formation + (Exports - Imports)

account is the last account in the sequence of accounts recording transactions.

- *Revaluation account.* This account (equation 8) shows changes in net worth arising from holding gains and losses on nonfinancial assets, financial assets, and liabilities resulting from changes in the prices of the various assets and liabilities.

- *OCVA account.* This account (equation 9) shows changes in net worth arising from all factors other than transactions as recorded in the capital and financial accounts and holding gains/losses as recorded in the revaluation account.

418. The *balance sheets* show stocks of nonfinancial and financial assets and liabilities on the date for which the balance sheet is compiled. The difference between total assets and total liabilities is net worth (equation 10). For each group of assets and liabilities, and thus net worth, changes between the opening and closing balance sheets result from transactions and other flows recorded in the accumulation accounts.

419. The *goods and services account* shows how total supply of goods and services (products) from domestic production and imports is used for intermediate and final use (equation 11 a). By using the definition of GDP from equation 1, it is possible to rearrange the account to show how GDP[48] can also be calculated from the expenditure side as the sum of final consumption expenditures, capital formation, and net exports (exports *less* imports). The account has no balancing item, and represents a transaction, dummy, or screen account that recapitulates what is found for a given group of transactions in the other accounts.

420. In Box 8.3, equations 1 through 6 show the key macroeconomic relationships among saving, capital formation, and the ROW, stated in terms of *SNA* components and balancing items. Equation 1 restates the expenditure approach to calculating GDP. Equation 2 shows the external current account balance[49] calculated as exports of goods and services *less* imports of goods and services *plus* net primary income from abroad *plus* net current transfers from abroad. Equation 3a defines GNDI. Equation 3b expands the terms of 3a; 3c simplifies this equation to identify the external current account balance. Equation 4 rearranges the elements of equation 3c to show that saving, as derived in the use of income account, is equal to the sum of investment and the external account balance. Equation 5 shows the equality between the saving-capital formation gap and the external current account balance. Equation 6a is a statement of the capital account for the total economy, and 6b relates the capital account to the external current account balance in calculating net lending/net borrowing to the rest of the world.

THE BALANCE SHEETS AND ACCUMULATION ACCOUNTS

421. The balance sheets and accumulation accounts are the recommended framework for financial statistics because they provide an internationally recognized set of guidelines for integrating financial stocks and flows into a complete system of accounts.

422. The balance sheets and accumulation accounts cover the transactions, other flows, and stock positions that are relevant for broad financial analysis. These accounts constitute an integrated statistical system for valuing assets and liabilities at the beginning and end of an accounting period and for all intervening changes in the volume and value of assets and liabilities. Chapters X through XIII of the *1993 SNA* describe the balance sheets and accumulation accounts in detail.

423. Box 8.4 provides summary descriptions of the component accounts shown in equations 7 through 11 in Box 8.2. The balance sheets and accumulation accounts include all economic

[48]Equation 1 represents the production approach to calculating GDP; equation 2, the income approach; and equation 11 b, the expenditure approach.

[49]As found in the balance of payments, which equals (with opposite sign) the current external balance in the *1993 SNA* sequence of accounts for the ROW.

Box 8.3. Domestic Economy-ROW and Saving-Capital Formation Relationships

1.	**Gross domestic product =** Final consumption expenditure + Capital formation + Exports - Imports
2.	**External current account balance =** Exports - Imports + Net primary income from abroad + Net current transfers from abroad
3a.	**Gross national disposable income=** Gross domestic product + Net primary income from abroad + Net current transfers from abroad
3b.	**Gross national disposable income =** Final consumption expenditure + Capital formation + Exports - Imports + Net primary income from abroad + Net current transfers from abroad
3c.	**Gross national disposable income =** Final consumption expenditure + Capital formation + External current account balance
4.	**Saving =** Gross national disposable income - Final consumption expenditure = Capital formation + External current account balance
5.	**External current account balance =** Saving - Capital formation
6a.	Saving - Capital formation - Net acquisitions of nonproduced nonfinancial assets + Net capital transfers from abroad **= Net lending/borrowing to the rest of the world**
6b.	**Net lending/borrowing to the rest of the world =** External current account balance + Net capital transfers from abroad - Net acquisitions of nonproduced nonfinancial assets

assets as described in Chapter 4. The opening and closing balance sheets are composed of stocks of nonfinancial assets and financial assets and liabilities. The accumulation accounts—the capital account, financial account, revaluation account, and other change in volume of assets account—are flow accounts that cover all changes in the value of stocks between the opening and closing balance sheet dates.

Balance Sheets

424. A balance sheet is a statement, drawn up at a particular point in time, of the value of the stocks of nonfinancial assets and financial assets and liabilities of a subsector, a sector, or the entire economy. Table 8.1 presents sample data for the components and balancing items of the balance sheets for institutional sectors, the total domestic economy, and the rest of the world. The balancing item in the balance sheet—the total value of assets *less* total liabilities—is *net worth*. The net worth of the economy, often referred to as national wealth, equals the sum of a country's nonfinancial assets and its net financial claims on the rest of the world.

425. The broad components of balance sheet data are as follows:

- *Nonfinancial assets*—Entities over which ownership rights are enforced by institutional units, individually or collectively, and from which economic benefits may be derived by their owners by holding them, or using them over a period of time. Nonfinancial assets consist of tangible assets, both produced and nonproduced, and intangible assets for which no corresponding liabilities are recorded. Produced assets comprise nonfinancial assets that have come into existence as outputs from production processes. Produced assets consist of (1) fixed assets—assets that are used repeatedly, or continuously, in production processes for more than one year and that may be tangible (dwellings, other buildings and structures, machinery and equipment, and cultivated assets, such as livestock for breeding and plantations) or intangible (mineral exploration, computer software, and entertainment, literary, or artistic originals), (2) inventories (materials and supplies, work-in-progress, finished goods, and goods for resale), and (3) valuables (assets that are acquired and held primarily as stores of value). Nonproduced nonfinancial assets are both tangible and intangible assets that come into existence other than through processes of production. Tangible nonproduced assets include land, subsoil assets, water resources, and noncultivated biological resources. Environmental assets over which ownership rights have not been or cannot be enforced (open seas or air) are outside the asset boundary of the *SNA*. Intangible nonproduced assets include patents, leases, and purchased goodwill.

- *Financial assets*—Entities over which ownership rights are enforced by institutional units and from which economic benefits may be derived in the form of holding gains or property income. Financial assets differ from other assets in the *SNA* in that, other than for monetary gold and SDRs, there is a counterpart liability of another institutional unit.

- *Financial liabilities*—Financial obligations of institutional units that are the counterparts to financial assets of other units.

- *Net worth*—The balancing item in the balance sheet, equal to the value of all assets *less* the value of all liabilities.

The Capital Account

426. The capital account records (1) the value of nonfinancial assets acquired *less* nonfinancial assets disposed of during an accounting period and (2) capital transfers receivable *less* capital transfers payable. It shows the composition of capital formation, transactions in nonproduced nonfinancial assets, and the financing through saving and net capital transfers. It also shows changes in net worth due to saving and capital transfers. Table 8.2 shows, with sample data, the major components of the capital account. (See *1993 SNA*, Table 10.1, for the detailed presentation.)

Box 8.4. The Balance Sheets and Accumulation Accounts

Opening Balance Sheet

The stock of nonfinancial assets and financial assets and liabilities of an economy, sector, or institutional unit at the beginning of an accounting period.

The balancing item is opening net worth, calculated as total assets *less* total liabilities.

Capital Account

During an accounting period, the capital account records (1) the value of nonfinancial assets acquired *less* nonfinancial assets disposed of and (2) capital transfers receivable *less* capital transfers payable. Changes in the value of nonfinancial assets resulting from revaluation and changes in the volume of nonfinancial assets not resulting from transactions are not recorded in the capital account.

Net saving carried forward from the current accounts and *net capital transfers* measure the resources available for capital and financial accumulation, a total that is equal to *changes in net worth as a result of saving and capital transfers.* The balancing item for the account is *net lending or borrowing,* which is equal to savings and capital transfers *less* net capital formation.

Financial Account

The financial account records transactions during an accounting period that involve financial assets and liabilities. Changes in the value of financial assets and liabilities resulting from revaluation, and changes in the volume of financial assets and liabilities not resulting from transactions, are not recorded in the financial account.

Net lending or borrowing, carried forward from the capital account, is equal to net acquisition of financial assets *less* net incurrence of liabilities.

Revaluation Account

The revaluation account records the holding gains or losses resulting from changes in market prices (including exchange rates) that accrue during the accounting period to owners of nonfinancial assets and financial assets and liabilities.

The balance of holding gains/losses is *changes in net worth resulting from holding gains/losses.*

OCVA

Changes in nonfinancial assets and financial assets and liabilities during an accounting period that are not due to transactions or revaluations.

The balance of the OCVA account (changes in assets *less* changes in liabilities) equals *changes in net worth resulting from other changes in volume of assets.*

Closing Balance Sheet

The stock of nonfinancial assets and financial assets and liabilities of an economy, institutional sector, or institutional unit at the end of an accounting period. The stock of assets in the closing balance sheet equals the stock in the beginning balance sheet plus the flow changes shown in the capital, financial, revaluation, and OCVA accounts.

The balancing item is closing *net worth.*

427. The following provides a summary description of the major capital account components presented in Table 8.2.

- *Saving* is the fmal balancing item of the current accounts—the part of disposable income that is not spent on final consumption of goods and services and therefore is available for acquisition of nonfmancial or financial assets or repayment of liabilities. Saving can be positive (when disposable income exceeds final consumption expenditure) or negative (when final consumption expenditure exceeds disposable income). Saving is presented on both a gross and a net basis. The difference between gross and net saving is consumption of fixed capital.

- *Current external balance* represents the balance with the rest of the world on exports and imports of goods and services, net primary income from abroad, and net current transfers from abroad. The current external balance is an integral part of an economy's saving and is equal in magnitude, but opposite in sign, to the domestic economy's net lending/net borrowing, and thus equal to the difference between an economy's saving *plus* net capital transfers and capital formation. It is also equal in magnitude, but opposite in sign, to the current account balance of the balance of payments.

- *Gross fixed capital formation* includes acquisitions *less* disposals of new and existing fixed assets. Fixed assets are tangible and intangible assets created as outputs of production processes that are themselves used repeatedly in production for periods of more than a year. Consumption of fixed capital during the accounting period is shown as a separate item—consumption of fixed capital—rather than as disposal of an asset.

- *Consumption of fixed capital* reflects the decline in the value of the stock of fixed assets used in production as a result of physical deterioration, normal obsolescence, and normal accidental damage. It excludes the value of fixed assets destroyed by acts of war or exceptional events such as natural disasters. Gross fixed capital formation *less* consumption of fixed capital equals net fixed capital formation.

- *Change in inventories* comprises the value of the inventories acquired by an enterprise *less* the value of the inventories disposed of during an accounting period.

- *Acquisitions less disposals of valuables* refers to net transactions in goods (artwork, antiques, numismatic coins of precious metal, etc.) that are held as stores of value over time or to realize holding gains.

- *Acquisitions less disposals of nonproduced nonfinancial assets* refers to acquisitions *less* disposals of land, other nonproduced tangible assets (e.g., subsoil assets), and intangible nonproduced assets (e.g., patented entities, leases, and purchased goodwill).

- *Capital transfers receivable/payable* are unrequited transactions, which may be in kind or in cash. Capital transfers in kind arise when ownership of an asset other than inventories and cash is transferred from one unit to another or liabilities are canceled by a creditor (debt forgiveness). A transfer in cash is capital when it is linked to, or conditional on, the acquisition or disposal of an asset (other than inventories or cash) by one or both parties to the transaction. Both capital transfer receivables and payables are recorded on the right side of the account because they directly affect net worth. A capital transfer receivable increases net worth, while a capital transfer payable reduces net worth.

428. *Net lending/Net borrowing* is the balancing item of the capital account, calculated as net saving *plus* capital transfers receivable *less* capital transfers payable *less* acquisition *less* disposals of nonproduced nonfinancial assets. The net resources available to an economy or sector from saving and net capital transfers that are not used for capital accumulation are the amount of resources available for net acquisition of financial assets, that is, net lending. Economies or institutional sectors with a surplus of resources (through saving and net capital transfers) over capital accumulation are net lenders. Economies or institutional sectors that have capital expenditures in excess of these resources are net borrowers. Changes in net worth arise from saving and capital transfers.

The Financial Account

429. The financial account shows financial transactions among institutional units and between institutional units and the rest of the world. Financial transactions cover all transactions involving change of ownership of financial assets, including the creation and liquidation of financial claims.

430. Because financial assets (other than monetary gold and SDRs) have counterpart liabilities, total net acquisition of financial assets other than monetary gold and SDRs must equal total net incurrence of liabilities when transactions with the rest of the world are included. Transactions in monetary gold and SDRs involve only exchanges of financial assets, usually with nonresidents.

431. The financial account is the final account in the sequence of transaction accounts in the *SNA* framework. Unlike the other accounts, the financial account does not have a balancing item that is carried forward to another account. Rather, the net balance of the financial account is equal in magnitude, but with the opposite sign, to net lending/borrowing, which is the balancing item in the capital account.

432. Table 8.3 shows the components of the financial account. Net acquisitions of financial assets are recorded on the left side of the account, and net incurrence of liabilities and changes in net worth are recorded on the right side. Net lending/borrowing *equals* net acquisition of financial assets *less* net incurrence of liabilities.

433. Although the financial account shows the net financial assets acquired and the net liabilities incurred by type of financial asset and by sector, the account does not link specific assets to specific liabilities. For example, in Table 8.3 the general government has incurred liabilities in the form of securities other than shares of 64, but the financial account does not indicate which sectors (or the ROW) have acquired the assets. Detailed flow of funds accounts show who finances whom; that is, for each asset category, they link transactions between sectors.

The Revaluation Account

434. The revaluation account records holding gains and losses accruing to holders of nonfinancial and financial assets and liabilities as a result of changes in prices of assets and liabilities and exchange rates. Table 8.4 presents, with sample data, major components of the *SNA* revaluation account, showing nominal holding gains/losses for major classes of nonfinancial and financial assets and liabilities. Chapter V of this manual provides a description of the main items in the revaluation account.

The Other Changes in Volume of Assets Account

435. The OCVA account records changes in assets, liabilities, and net worth between opening and closing balance sheets that are due neither to transactions between institutional units (recorded in the capital and financial accounts) nor to price or exchange rate changes (recorded in the revaluation account). OCVA entries may occur either in the normal course of events or through exceptional, unanticipated events.

436. The OCVA account covers the following three major types of entries:

- Assets that enter or leave the economic system in the normal course of events. These may include natural assets, such as discovery of minerals or destruction of farmland as a result of environmental deterioration. They may also include produced assets, such as works of art or other valuables. In addition, they include goodwill and other assets created by legal actions.

- Asset changes arising from exceptional and catastrophic events, including destruction from disasters or illegal seizure of assets without compensation, a situation that is not treated as a transaction because mutual consent is lacking.

- Asset changes arising from reclassification of institutional units and financial instruments, and from changes in the structure of the accounts.

437. Table 8.5 shows the general structure of the OCVA account, together with sample data. The major categories of the account are presented, as well as a full listing of financial assets. All increases in assets and reductions in liabilities arising from OCVA increase net worth, while all decreases in assets and increases in liabilities arising from OCVA decrease net worth. Chapter 5 describes financial entries in the OCVA account. A detailed presentation is given in Table 12.1 of the *1993 SNA*.

FLOW OF FUNDS ACCOUNTS

438. This section addresses (1) the nature and uses of flow of funds accounts and (2) the structure of flow of funds accounts, including integration of capital and financial transactions and approaches to flow of funds accounts that vary by the complexity of data requirements.

THE NATURE AND USES OF FLOW OF FUNDS ACCOUNTS

439. Flow of funds accounts are sectoral accounts, and, while these accounts place an emphasis on financial corporations because of their important role in financial activity, they also attach due consideration to the financial activities of other institutional sectors. Flow of funds accounts had their origin as a separate statistical system but are now commonly linked to the nonfinancial economy by their integration within the national accounting framework, particularly through associating financial data with data on saving and capital formation. Flow of funds are transactions accounts, but they are often linked to balance sheet accounts and are prepared in conjunction with accounts of stocks of financial assets and liabilities of each institutional sector.

440. Flow of funds accounts exist in various forms that differ according to the analytical needs that are being addressed and by the complexity and detail of the accounting presentation and data requirements. The simplest flow of funds accounts identify financial transactions of major importance between sectors at an aggregated level. The most complex flow of funds accounts consist of a three-dimensional matrix that relates the creditor sector, the debtor sector, and the financial asset used in the transaction. The preparation of basic flow of funds accounts is within the capabilities of all countries that have reasonably complete systems of balance of payments, government finance, and monetary statistics. Because a country's approach to flow of funds accounts depends on its current state of statistical development and analytical needs, this manual makes no specific recommendations with regard to the compilation of flow of funds accounts across countries. Rather, the manual describes a range of flow of funds accounts that can be adapted to a country's requirements and statistical capabilities.

441. Flow of funds accounts that combine the capital account with the financial account provide an integrated presentation of nonfinancial and financial accumulation. This combined account allows analysis of the links between saving, capital formation, and financial flows for the whole economy and for each institutional sector.

442. Flow of funds accounts that follow the form of the *1993 SNA* financial account can, of course, be fully integrated with capital account transactions and with sectoral and national balance sheets.

443. The financial element of flow of funds accounts can be prepared in many forms. The following sections describe three variations, in order of increasing complexity. Each of these approaches is general enough to assimilate new financial instruments and practices.

444. National and sectoral balance sheets can be compiled to present the stock equivalent of the various forms of flow of funds transactions accounts. Balance sheets can be prepared for financial corporations, government, and the external sector (based on the international investment position) to supplement the basic flow of funds presentation. The preceding section of this chapter described balance sheets that correspond to the capital and financial accounts. Balance sheets can be extended in the same way as the detailed flow of funds transactions matrix to show, for each financial asset category, the financial claims of each sector on other individual sectors. Reconciliation accounts, or more complete revaluation and OCVA accounts, can also be developed to account for differences between the accumulated transaction flows and the value of stocks.

445. The flow of funds accounts can display many of the channels through which financial policies are implemented, particularly if data for the sectors and subsectors that are responsible for implementing policies are presented separately from other sectors. For example, in order to analyze how changes in financial positions affect spending decisions and economic behavior, it is possible to trace the effects of monetary policy actions through the accounts of the central bank, other depository corporations, and nonfinancial sectors. The linkages that can be examined in flow of funds accounts are more extensive than those presented in the monetary statistics.

446. Flow of funds accounts are useful for financial projections and forecasting, by ensuring both (1) the internal consistency of financial forecasts and (2) the consistency of financial forecasts with national accounts forecasts. The accounting constraints in the matrices can be built into economic models in which the variables are forecast simultaneously, or they can be used as a consistency check on forecasts of variables that have been derived independently of one another.

THE STRUCTURE OF FLOW OF FUNDS ACCOUNTS

447. The structure of the flow of funds accounts consists of (1) flow of funds accounts that integrate the capital and financial accounts, and (2) three variations of the financial component—basic flow of funds accounts, the *SNA* financial account, and three-dimensional matrix presentations—that can be presented independently or in conjunction with the capital account transactions.

INTEGRATED CAPITAL AND FINANCIAL ACCOUNTS

448. The *SNA* capital account and the *SNA* financial account can be integrated into a single flow of funds account that shows all resources available for nonfinancial and financial accumulation and the use of those resources for capital formation. Direct measurement of capital and financial transactions within this framework, rather than from the balancing item in the current account, can also be used to measure the saving of each sector.

449. Table 8.6, at the end this chapter, shows an example of an *integrated capital and financial account*. The table is presented in a matrix format demonstrating, for each institutional sector, the total economy and the rest of the world, changes in assets (uses), and changes in liabilities (resources). The first row shows total resources (net saving and net capital transfers) available for investment. The second row presents total net investment as the sum of capital accumulation and net financial investment. It also shows the components of capital accumulation and net financial investment. Table 8.6 can also be interpreted as separate capital and financial accounts. In the capital account, net saving is treated as a resource on the right side, as are net capital transfers; capital accumulation is a use; and net lending/borrowing is the balancing item. Net lending/borrowing is carried forward to the financial account as a resource. Within this framework, net incurrence of financial liabilities is treated as a source of funds, and the total of net lending/borrowing and net incurrence of liabilities can be used for net acquisition of financial assets as a use of funds. Total resources and uses are summarized in the memorandum item at the end of Table 8.6. To emphasize the fact that financial transactions can be directly measured, the term *net financial investment* is used to denote the balancing item of the financial account, calculated as net acquisition of financial assets *less* net incurrence of liabilities.

450. Net financial investment is always equal in concept to net lending/borrowing. A statistical discrepancy can be shown that represents any difference between the recorded total for saving and capital transfers and recorded total net lending. The discrepancy can arise in practice because of gaps in coverage or mismeasurement of any of the items in the full sequence of accounts. Explicit publication of the discrepancy focuses attention on statistical problems and may provide an incentive to improve the quality of the accounts. The discrepancy may be due to mismeasurement in the current accounts (leading to errors in estimates of saving), in the capital account, or in the financial account.

451. Flow of funds in the form of integrated capital and financial accounts can provide independent estimates of saving that can be compared with estimates prepared from the current accounts. Financial flow of funds accounts can also provide independent estimates of net lending/borrowing. These independent estimations can instill confidence in the quality of estimates of saving and investment, or they can identify statistical problems that need addressing.

FINANCIAL FLOW OF FUNDS ACCOUNTS

452. Flow of funds accounts can take the form of integrated capital and financial accounts or can cover only financial transactions. There are many forms of financial account presentations that can be called flow of funds, and all can be integrated with the capital account or compiled and presented separately. The following paragraphs describe three major variants, which differ according to level of detail on sectors and financial asset categories, and which represent substantially different levels of resource requirements. The three forms of flow of funds accounts are (1) basic flow of funds accounts (2) the *SNA* integrated financial account and (3) detailed flow of funds matrices.

Basic Flow of Funds Accounts

453. A basic flow of funds account is a modified form of the flow of funds matrix that employs a reduced number of sector and financial asset categories. The sectors chosen are normally those most important for financial analysis and for which data are available—remaining sectors are placed in a residual category. Countries that prepare macroeconomic accounts covering monetary statistics, government finance data, and the balance of payments can construct the basic accounts. Therefore, countries that have limited statistical resources can nevertheless benefit from compiling a set of interrelated and internally consistent sectoral accounts that are useful for analytic and policy purposes.

454. Table 8.7, shown at the end of this chapter, presents a basic flow of funds account that can be compiled from the data contained in the macroeconomic data sets referred to in the preceding paragraph. The table is presented in a resources-and-uses framework common to flow of funds presentations. *Resources* include saving, capital transfers, and net incurrence of liabilities, while *uses* are capital accumulation and net acquisition of financial assets.

455. The sectors individually identified in Table 8.7 are likely to have data that provide sufficient details of intersectoral transactions. The data necessary for compilation of monetary statistics provide a breakdown, by sector, of stocks of assets and liabilities of the central bank and other depository corporations, as well as their operations with the rest of the world (foreign assets and liabilities). Central government financing data provide the source of financing data at least at the level of distinguishing domestic bank financing and financing from abroad, and the balance of payments financial account provides information on the type of financial assets. Construction of the basic flow of funds matrix in an integrated framework imposes constraints on the sectoral and transactions data. Total resources and uses must balance for each sector and for each financial asset category. Therefore, these constraints provide a useful test of the comprehensiveness and consistency of the source data.

456. In Table 8.7, other domestic sectors is a residual category that comprises nondepository financial corporations, nonfinancial corporations, levels of government other than the central government, households, and nonprofit institutions serving households. Data for capital account resources and uses of the residual sector can be calculated by subtracting the resources and uses for the identified sectors from estimates for the total economy. For the financial account resources and uses, the entries for this residual sector reflect only transactions with the specified sectors and the rest of the world; no data on the financial transactions within the residual sector are available. All resources of specified sectors that cannot be identified as uses by the identified sectors are assigned as uses to the residual sector, and, similarly, all uses of the specified sectors that cannot be identified as resources of the identified sectors are assigned to the residual sector as resources. For example, data for shares and other equity reflect holdings of equities in nonfinancial corporations as uses of the specified sectors, and these are shown as resources of the other domestic sectors. However, equity resources of nonfinancial corporations held as uses by nonspecified sectors (such as households) cannot be identified within this framework.

457. Further development of flow of funds beyond this example requires extending sectoral and instrument coverage. This will result in the residual sector becoming progressively smaller over time as additional sectors are specified within the accounts. As the usefulness of basic flow of funds may be limited by a large residual sector, data for additional sectors should be developed based on analytical needs and cost of compilation. Extensions of the basic flow of funds framework in an individual country should be based on the identification of the most important sectors (or subsectors) that are not included in the most basic presentation.

458. Table 8.8, shown at the end of this chapter, illustrates an extension of the basic flow of funds presented in Table 8.7 to include columns for (1) other financial corporations, including insurance corporations and pension funds and (2) public nonfinancial corporations, as well as financial asset rows for insurance technical reserves and other accounts receivable/payable. In comparing Tables 8.7 and 8.8, it is possible to note two improvements. First, some resources and uses that were assigned to the residual sector in Table 8.7 can be seen in the newly specified sectors. For example, 97 uses of currency and deposits were assigned to the residual sector in Table 8.7. However, Table 8.8 indicates that 7 were uses of insurance corporations, pension funds, and other financial intermediaries, and 8 were uses of public nonfinancial corporations, leaving 82 in the residual sector (now composed primarily of households, nonprofit institutions serving households, state and local governments, financial auxiliaries, and other nonfinancial corporations). Second, new transactions have entered the matrix. For example, the inclusion of insurance corporations and pension funds permits the identification of insurance technical reserves as resources of these enterprises and uses of the residual sector (primarily households). Also, the newly introduced financial intermediaries have acquired loans (uses) of 52, some of which were not accounted for in Table 8.7, as total loans identified have increased from 254 to 270.

459. Basic flow of funds accounts are useful in macroeconomic modeling and provide a framework for financial programming. These accounts demonstrate a number of sectoral relationships (including consistency of flows between sectors with macroeconomic objectives such as a sustainable balance of payments position, adequacy of credit from depository corporations to specified sectors, financing of the central government deficit, etc.) that can be tested for consistency within a flow of funds framework.

The *SNA* Integrated Financial Account

460. The *SNA* integrated financial account (presented in Table 8.3 and in the financial part of Table 8.6) represents further development of flow of funds beyond the sectoral and financial asset detail provided in the basic accounts. The integrated financial account is a two-dimensional matrix that covers all institutional sectors and financial asset categories. For each sector and for the total economy, it presents net incurrence of liabilities (resources) and net acquisition of financial assets (uses). A complete financial account provides substantially more important sectoral information than shown in the basic flow of funds accounts by including the financial transactions of nonfinancial corporations and households, both of which are in the residual sector in the basic flow of funds account. These sectors engage in a very important range of transactions that do not have a counterpart in the sectors covered by the basic accounts. Flow of funds accounts that follow the form of the *SNA* financial accounts can, of course, be fully integrated with capital account transactions and with *SNA* sectoral and national balance sheets.

461. While flow of funds accounts in the financial account format provide a richer source for analysis than basic accounts, the cost of producing financial accounts is higher, given that the collection of financial data for nonfinancial corporations and households generally must be survey-based. This often introduces problems related to data coverage and consistency that must be addressed in the context of matrix constraints on sectoral and financial asset totals.

Detailed Flow of Funds Matrices

462. While a financial account flow of funds provides a great deal of sectoral detail, it is only at the two-dimensional level, that is, it shows net incurrence of liabilities by sector and net acquisitions of assets by sector. To address the three-dimensional issue of which sectors finance other specific sectors through the use of specific financial assets, it is necessary to develop more elaborate flow of funds matrices.

463. The *SNA* financial account may be expanded into a three-dimensional matrix to track financial transactions between source and user sectors and the financial asset used in the transaction. It therefore shows who finances whom and by means of which financial asset. Because of the symmetrical nature of financial assets and liabilities, a single matrix could be constructed, insofar as one institutional unit's asset is another institutional unit's liability. Such a matrix, however, would be very cumbersome. This manual, therefore, recommends separate matrices for financial assets and for financial liabilities. These matrices, referred to as "detailed flow of funds accounts," are presented at the end of this chapter in Table 8.9.[50] Each matrix pertains to a single time period. The assets matrix specifies the creditor sector in the columns and the debtor sector in the rows for each financial asset category. The liability matrix specifies the liability sector in the columns and the creditor sector for each financial asset category in the rows. The capital account can also be included in the presentation if considered to be analytically useful.

464. The interlocking row and column constraints within the matrix provide an important check on consistency of data compilation and lend considerable analytical usefulness to the flow of funds presentation. The linking of creditor and debtor by type of financial asset indicates which sectors are providing financing for other sectors and which type of asset is used in the financing. For example, the new issue of a bond by a unit of central government that is acquired by a depository corporation would lead to the following entries in the assets table: (1) an entry at the intersection of the column for depository corporations and the row for securities other than shares of central government (increase in assets of the depository corporations and incurrence of liabilities of central government) and (2) an entry at the intersection of the column for central government and the row for transferable national currency deposits of residents (increase in deposits of central government and increase in transferable deposit liabilities of resident depository corporations).

465. The sectoral balance sheets for financial corporations that are presented in Chapter 7 provide all of the information needed to prepare a detailed three-dimensional flow of funds presentation for the financial corporations sector and its subsectors.

[50]These matrices incorporate some modifications to the flow of funds matrices shown in Tables 11.3a and 11.3b of the *1993 SNA* to ensure consistency with the sectoral and financial assets breakdowns for the surveys presented in Chapter 7.

Table 8.1. Components of the *SNA* Balance Sheets

Assets								Stocks and Balancing Items		Liabilities and Net Worth							
Total	Rest of the World	Total Economy	NPISHs	Households	General Government	Financial Corporations	Nonfinancial Corporations			Nonfinancial Corporations	Financial Corporations	General Government	Households	NPISHs	Total Economy	Rest of the World	Total
9922		9922	324	2822	1591	144	5041	**AN**	**Nonfinancial assets**								
6047		6047	243	1698	1001	104	3001	**AN.1**	Produced assets								
5544		5544	231	1423	913	99	2878	**AN.11**	Fixed assets								
231		231	2	97	47		85	**AN.12**	Inventories								
272		272	10	178	41	5	38	**AN.13**	Valuables								
3875		3875	81	1124	590	40	2040	**AN.2**	Nonproduced assets								
3809		3809	81	1124	578	37	1989	**AN.21**	Tangible								
66		66			12	3	51	**AN.22**	Intangible								
7365	573	6792	172	1819	396	3508	897	**AF**	**Financial assets/liabilities**	1817	3384	687	289	121	6298	297	6595
770		770			80	690		**AF.1**	Monetary gold and SDRs								
1587	105	1482	110	840	150		382	**AF.2**	Currency and deposits	40	1281	102	10	38	1471	116	1587
1388	125	1263	25	198		950	90	**AF.3**	Securities other than shares	44	1053	212	2		1311	77	1388
1454	70	1384	8	24	115	1187	50	**AF.4**	Loans	897		328	169	43	1437	17	1454
1409	113	1296	22	411	12	651	200	**AF.5**	Shares and other equity	687	715	4			1406	3	1409
396	26	370	4	291	20	30	25	**AF.6**	Insurance technical reserves	12	335	19		5	371	25	396
								AF.7	Financial derivatives								
361	134	227	3	55	19		150	**AF.8**	Other accounts receivable/payable	137		22	108	35	302	59	361
17287	573	16714	496	4641	1987	3652	5938		**Total assets/liabilities**	1817	3384	687	289	121	6298	297	6595
								B.90	**Net worth**	**4121**	**268**	**1300**	**4352**	**375**	**10416**	**276**	**10692**

Notes: Shaded areas indicate cells that are not applicable; *1993 SNA* classification of assets codes are shown in center column.

Table 8.2. Major Components of the *SNA* Capital Account

Changes in Assets										Changes in Liabilities and Net Worth							
Total	Rest of the World	Total Economy	NPISHs	Households	General Government	Financial Corporations	Nonfinancial Corporations		Transactions and Balancing Items	Nonfinancial Corporations	Financial Corporations	General Government	Households	NPISHs	Total Economy	Rest of the World	Total
								B.8g	Saving, gross	185	21	20	202	27	455		455
								K.1	Consumption of fixed capital (-)	-137	-10	-30	-42	-3	-222		-222
								B.8n	Saving, net	48	11	-10	160	24	233		233
								B.12	Current external balance							-41	-41
376		376	19	61	37	9	250	P.51	Gross fixed capital formation								
-222		-222	-3	-42	-30	-10	-137	K.1	Consumption of fixed capital (-)								
28		28		2			26	P.52	Changes in inventories								
10		10		5	3		2	P.53	Acquisitions *less* disposals of valuables								
			1	4	2		-7	K.2	Acquisitions *less* disposals of nonproduced nonfinancial assets								
			1	3	2		-6	K.21	Land and other tangible nonproduced assets								
				1			-1	K.22	Intangible nonproduced assets								
								D.9	Capital transfers, receivable	33		6	23		62	4	66
								D.9	Capital transfers, payable	-16	-7	-34	-5	-3	-65	-1	-66
	-38	38	4	148	-50	5	-69	B.9	Net lending (+)/net borrowing (-)								
								B.10.1	Changes in net worth due to saving and capital transfers	65	4	-38	178	21	230	-38	192

Notes: Shaded areas indicate cells that are not applicable; *1993 SNA* classification codes are shown in the center column.

Table 8.3. Components of the *SNA* Financial Account

Changes in Assets								Transactions and Balancing Items		Changes in Liabilities and Net Worth							
Total	Rest of the World	Total Economy	NPISHs	Households	General Government	Financial Corporations	Nonfinancial Corporations			Nonfinancial Corporations	Financial Corporations	General Government	Households	NPISHs	Total Economy	Rest of the World	Total
								B.9	Net lending (+)/net borrowing (-)	-69	5	-50	148	4	38	-38	
691	50	641	32	181	120	237	71	F	Net acquisition of financial assets/Net incurrence of liabilities	140	232	170	33	28	603	88	691
	1	-1				-1		F.1	Monetary gold and SDRs								
130	11	119	12	68	7	15	17	F.2	Currency and deposits		130	2			132	-2	130
37	3	34	2	10	2	15	5		F.21 Currency		35				35	2	37
64	2	62	7	41	4		10		F.22 Transferable deposits		63	2			65	-1	64
29	6	23	3	17	1		2		F.29 Other deposits		32				32	-3	29
143	5	138	12	29	26	53	18	F.3	Securities other than shares	6	53	64			123	20	143
56	2	54	2	22	11	4	15		F.31 Short-term	2	34	15			51	5	56
87	3	84	10	7	15	49	3		F.32 Long-term	4	19	49			72	15	87
254	10	244		5	45	167	27	F.4	Loans	71		94	28	24	217	37	254
86	3	83		3	1	63	16		F.41 Short-term	16		32	11	17	76	10	86
168	7	161		2	44	104	11		F.42 Long-term	55		62	17	7	141	27	168
46	2	44		3	36	3	2	F.5	Shares and other equity	26	13			4	43	3	46
36		36		36				F.6	Insurance technical reserves		36				36		36
33		33		33				F.61	Net equity of households on life insurance reserves and in pension funds		33				33		33
22		22		22					F.611 Net equity of households in life insurance reserves		22				22		22
11		11		11					F.612 Net equity of households in pension funds		11				11		11
3		3		3				F.62	Prepayment of premiums and reserves against outstanding claims		3				3		3
								F.7	Financial derivatives								
82	21	61	8	40	6		7	F.8	Other accounts receivable/payable	37		10	5		52	30	82
36	18	18		11	1		6		F.81 Trade credits and advances	8		6	4		18	18	36
46	3	43	8	29	5		1		F.89 Other accounts receivable/payable	29		4	1		34	12	46

Notes: Shaded areas indicate cells that are not applicable; *1993 SNA* classification codes are shown in the center column.

Table 8.4. Major Components of the *SNA* Revaluation Account

Changes in Assets									Changes in Liabilities and Net Worth							
Total	Rest of the World	Total Economy	NPISHs	Households	General Government	Financial Corporations	Nonfinancial Corporations	Other Flows and Balancing Items	Nonfinancial Corporations	Financial Corporations	General Government	Households	NPISHs	Total Economy	Rest of the World	Total
								K.11 Nominal holding gain/losses								
280		280	8	80	44	4	144	AN Nonfinancial assets								
126		126	5	35	21	2	63	AN.1 Produced assets								
111		111	5	28	18	2	58	AN.11 Fixed assets								
7		7		2	1		4	AN.12 Inventories								
8		8		5	2		1	AN.13 Valuables								
154		154	3	45	23	2	81	AN.2 Nonproduced assets								
152		152	3	45	23	1	80	AN.21 Tangible nonproduced Assets								
2		2				1	1	AN.22 Intangible nonproduced assets								
90	7	83	1	16	1	57	8	AF Financial assets/liabilities	18	51	7			76	2	78
12		12			1	11		AF.1 Monetary gold and SDRs								
								AF.2 Currency and deposits								
44	4	40	1	6		30	3	AF.3 Securities other than shares	1	34	7			42	2	44
								AF.4 Loans								
34	3	31		10		16	5	AF.5 Shares and other equity								
								AF.6 Insurance technical reserves	17	17				34		34
								AF.7 Financial derivatives								
								AF.8 Other accounts receivable/payable								
								B.10.3 Changes in net worth resulting from nominal holding gains/losses	134	10	38	96	9	287	5	292

Notes: Shaded areas indicate cells that are not applicable; *1993 SNA* classification codes are shown in the center column.

Table 8.5. Major Components of the *SNA* Other Changes in Volume of Assets Account

Changes in Assets									Changes in Liabilities and Net Worth							
Total	Rest of the World	Total Economy	NPISHs	Households	General Government	Financial Corporations	Nonfinancial Corporations	Transactions and Balancing Items	Nonfinancial Corporations	Financial Corporations	General Government	Households	NPISHs	Total Economy	Rest of the World	Total
15		15		2	1	-2	14	Other volume changes, total								
24		24					24	K.3 Economic appearance of nonproduced assets								
3		3			3			K.4 Economic appearance of produced assets								
4		4			4			K.5 Natural growth of uncultivated biological resources								
-9		-9			-2		-7	K.6 Economic disappearance of nonproduced assets								
-11		-11			-6		-5	K.7 Catastrophic losses								
					8	-3	-5	K.8 Uncompensated seizures								
1		1					1	K.9 Other volume changes in nonfinancial assets								
3		3		2		1		K.10 Other volume changes in financial assets and liabilities, n.e.c.								
					-6		6	K.12 Changes in classifications and structure								
								Of which:								
10		10				-2	12	AN Nonfinancial assets								
5		5		2	1		2	AF Financial assets and liabilities	-3	2	-1			-2		-2
7		7				7		AF.1 Monetary gold and SDRs								
								AF.2 Currency and deposits								
					3	-3		AF.3 Securities other than shares								
-4		-4				-4		AF.4 Loans	-3		-1			-4		-4
					-2		2	AF.5 Shares and other equity								
2		2		2				AF.6 Insurance technical reserves		2				2		2
								AF.7 Financial derivatives								
								AF.8 Other accounts receivable/payable								
								B.10.2 Changes in net worth resulting from other changes in volume of assets (changes in assets less changes in liabilities)	17	-4	2	2		17		17

Notes: Shaded areas indicate cells that are not applicable; *1993 SNA* classification codes are shown in the center column.

Table 8.6. Integrated Capital and Financial Account

Changes in Assets (Uses)									Changes in Liabilities and Net Worth (Resources)							
Total	Rest of the World	Total Economy	NPISHs	Households	General Government	Financial Corporations	Nonfinancial Corporations	Transactions	Nonfinancial Corporations	Financial Corporations	General Government	Households	NPISHs	Total Economy	Rest of the World	Total
								Saving and capital transfers	65	04	-38	178	21	230	-38	192
								Net saving	48	11	-10	160	24	233	-41	192
								Net capital transfers	17	-7	-28	18	-3	-3	3	
192	-38	230	21	178	-38	4	65	Total net investment (Capital accumulation *plus* net financial investment)								
192		192	17	30	12	-1	134	Capital accumulation								
154		154	16	19	7	-1	113	Net fixed capital formation								
28		28		2			26	Changes in inventories								
10		10		5	3		2	Acquisitions *less* disposals of valuables								
			1	4	2		-7	Acquisitions *less* disposals of nonproduced nonfinancial assets								
	-38	38	4	148	-50	5	-69	Net lending/net borrowing = Net financial investment = Acquisition of financial assets *less* incurrence of liabilities								
691	50	641	32	181	120	237	71	I. NET ACQUISITION OF FINANCIAL ASSETS/ INCURRENCE OF LIABILITIES	140	232	170	33	28	603	88	691
	1	-1				-1		Monetary gold and SDRs								
130	11	119	12	68	7	15	17	Currency and deposits		130	2			132	-2	130
143	5	138	12	29	26	53	18	Securities, other than shares	6	53	64			123	20	143
								Financial derivatives								
254	10	244		5	45	167	27	Loans	71		94	28	24	217	37	254
46	2	44		3	36	3	2	Shares and other equity	26	13			4	43	3	46
36		36		36				Insurance technical reserves		36				36		36
82	21	61	8	40	6		7	Other accounts receivable/payable	37		10	5		52	30	82
								Discrepancy (saving and capital transfers *less* total net investment)								
								Memorandum *item: Total sources/uses*								
								Sources = Saving and capital transfers + Net incurrence of liabilities	205	236	132	211	49	833	50	883
883	50	833	49	211	132	236	205	Uses = Capital accumulation + Net acquisition of financial assets + Statistical discrepancy								

Notes: Shaded areas indicate cells that are not applicable. Data are derived from *1993 SNA* Table 10.1: Capital Account and Table 11.1: Financial Account.

Table 8.7. Basic Flow of Funds Account I

	Central Bank		Other Depository Corporatious		Central Government		Other Domestic Sectors		Rest of the World		Total	
Account	U	R	U	R	U	R	U	R	U	R	U	R
Saving and capital transfers				4		-38		264		-38		192
Capital accumulation			-1		12		181				192	
Net lending (+) or borrowing (-)			*5*		*-50*		*83*		*-38*			
Monetary gold and SDRs	-1								1			
Currency and deposits		35	15	95	7	2	97		11	-2	130	130
Securities other than shares			53	53	32	74	114	48	26	50	225	225
Loans	36		95		45	94	68	123	10	37	254	254
Other (shares and other equity, insurance technical reserves, financial derivatives, and other accounts receivable/payable)			3	13	36		5	30	2	3	46	46
Total resources and uses	35	35	165	165	132	132	465	465	50	50	847	847

Notes: Shaded areas indicate cells that are not applicable.
R = Resources, which are equal to saving and capital transfers of each sector plus net incurrence of financial liabilities.
U = Uses, which are equal to capital accumulation and net acquisition of financial assets.

Table 8.8. Basic Flow of Funds Account II

Account	Central Bank		Other Depository Corporations		Other Financial Corporations		Central Government		Public Nonfinancial Corporations		Other Domestic Sectors		Rest of the World		Total	
	U	R	U	R	U	R	U	R	U	R	U	R	U	R	U	R
Saving and capital transfers				4				-38		31		233		-38		192
Capital accumulation			-1				12		67		114				192	
Net lending (+) or borrowing (-)			*5*				*-50*		*-36*		*119*		*-38*			
Monetary gold and SDRs	-1												1			
Currency and deposits		35	15	95	7		7	2	8		82		11	-2	130	130
Securities other than shares			53	53			32	74	11	3	103	48	26	50	225	225
Loans	36		95		52	16	45	94		36	32	93	10	37	270	270
Shares and other equity			3	13			36		2	16	8	15	2	3	51	51
Insurance technical reserves						36					36				36	36
Financial derivatives																
Other accounts receivable/payable									12	14	14	12			26	26
Total resources and uses	35	35	165	165	52	52	132	132	100	100	396	396	50	50	930	930

Notes: Shaded areas indicate cells that are not applicable.
R = Resources, which are equal to saving and capital transfers of each sector plus net incurrence of financial liabilities.
U = Uses, which are equal to capital accumulation and net acquisition of financial assets.

Table 8.9. Detailed Flow of Funds (Upper left quadrant)

Financial assets of:	Financial corporations									
		Other	Other			Public	Other			
	Central	Depository	Financial	Central	State and local	nonfinancial	nonfinancial	Other resident		
	bank	Corporations	Corporations	government	government	corporations	corporations	sectors	Nonresidents	Total
Type of claim and debtor	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. Monetary gold and SDRs	**70**									
2. Currency and deposits	**1571**	**2161**	**-1**							
a. Currency	**15**	**283**	**8**							
i. National		71	-14							
ii. Foreign	15	212	22							
b. Transferable deposits	**654**	**1764**	**43**							
i. In national currency		**1528**	**58**							
- Central bank		1562	2							
- Other depository corporations		-34	56							
- Other financial corporations										
- Central government										
- State and local government										
- Public nonfinancial corporations										
- Other nonfinancial corporations										
- Other resident sectors										
- Nonresidents										
ii. In foreign currency	**654**	**236**	**-15**							
- Central bank		138	3							
- Other depository corporations		3	6							
- Other financial corporations										
- Central government										
- State and local government										
- Public nonfinancial corporations										
- Other nonfinancial corporations										
- Other resident sectors										
- Nonresidents	654	95	-24							
c. Other deposits	**902**	**114**	**-52**							
i. In national currency		**105**	**-28**							
- Central bank		100	-22							
- Other depository corporations		5	-6							
- Other financial corporations										
- Central government										
- State and local government										
- Public nonfinancial corporations										
- Other nonfinancial corporations										
- Other resident sectors										
- Nonresidents										
ii. In foreign currency	**902**	**9**	**-24**							
- Central bank		1								
- Other depository corporations		-2	13							
- Other financial corporations										
- Central government										
- State and local government										
- Public nonfinancial corporations										
- Other nonfinancial corporations										
- Other resident sectors										
- Nonresidents	902	10	-37							
3. Securities other than share	**136**	**132**	**7252**							
a. Central bank		11								
b. Other depository corporations		4	15							
c. Other financial corporations	347		16							
d. Central government	-1109	111	458							
e. State and local government		-9	132							
f. Public nonfinancial corporations	250		-145							
g. Other nonfinancial corporations		8	5563							
h. Other resident sectors										
i. Nonresidents	648	7	1213							

Table 8.9. Detailed Flow of Funds (Lower left quadrant)

4. Loans	**969**	**-173**	**54**							
a. Central bank										
b. Other depository corporations	-136									
c. Other financial corporations	7	-5	4							
d. Central government	2									
e. State and local government	-6	5								
f. Public nonfinancial corporations	-23	200	-167							
g. Other nonfinancial corporations	2	-459	146							
h. Other resident sectors	-5	55	88							
i. Nonresidents	1128	31	-17							
5. Shares and other equity		**7**	**11**							
a. Central bank										
b. Other depository corporations			11							
c. Other financial corporations										
d. Central government										
e. State and local government										
f. Public nonfinancial corporations										
g. Other nonfinancial corporations			7							
h. Other resident sectors										
i. Nonresidents		7	-7							
6. Insurance technical reserves	**5**		**3**							
a. Net equity of households on life insurance reserves and on pension funds										
b. Prepayments of premiums and reserves against outstanding claims	5		3							
i. Central bank										
ii. Other depository corporations										
iii. Other financial corporations	2	2	2							
iv. Central government										
v. State and local government										
vi. Public nonfinancial corporations										
vii. Other nonfinancial corporations										
viii. Other resident sectors										
ix. Nonresidents	3	-2	1							
7. Financial derivatives	**131**	**4**	**30**							
a. Central bank			9							
b. Other depository corporations	37	-3	25							
c. Other financial corporations	-8	4	-6							
d. Central government										
e. State and local government			4							
f. Public nonfinancial corporations	26	5	3							
g. Other nonfinancial corporations	-15	10	-10							
h. Other resident sectors										
i. Nonresidents	91	-12	5							
8. Other accounts receivable/payable	**8**	**12**	**47**							
a. Trade credit and advances	**17**	**16**	**7**							
i. Central bank		2	3							
ii. Other depository corporations	-6	-3	1							
iii. Other financial corporations	4	-2	5							
iv. Central government		1								
v. State and local government		6	11							
vi. Public nonfinancial corporations	-2	3	7							
vii. Other nonfinancial corporations	8	10	-8							
viii. Other resident sectors	6	4								
ix. Nonresidents	7	-5	-12							
b. Other	**-9**	**-4**	**40**							
i. Resident sectors	7	-18	24							
ii. Nonresidents	-16	14	16							
Financial assets of:	Financial corporations									
	Central bank	Other Depository Corporations	Other Financial Corporations	Central government	State and local government	Public nonfinancial corporations	Other nonfinancial corporations	Other resident sectors	Nonresidents	Total
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)

Table 8.9. Detailed Flow of Funds (Upper right quadrant)

Liabilities of: Total (10)	Nonresidents (9)	Other resident sectors (8)	Other nonfinancial corporations (7)	Public nonfinancial corporations (6)	State and local government (5)	Central government (4)	Financial corporations: Other Financial Corporations (3)	Financial corporations: Other Depository Corporations (2)	Financial corporations: Central bank (1)	Type of claim and creditor
										1. Monetary gold and SDRs
								2981	**2814**	**2. Currency and deposits**
									250	a. Currency
									250	i. National
										ii. Foreign
								4275	**2468**	b. Transferable deposits
								4246	**1598**	i. In national currency
										- Central bank
								14	1466	- Other depository corporations
								855	7	- Other financial corporations
								3	315	- Central government
								42		- State and local government
								831	13	- Public nonfinancial corporations
								1305		- Other nonfinancial corporations
								1078		- Other resident sectors
								118	-203	- Nonresidents
								29	**870**	ii. In foreign currency
										- Central bank
								8	138	- Other depository corporations
								-3	10	- Other financial corporations
										- Central government
								9		- State and local government
								-15		- Public nonfinancial corporations
								22		- Other nonfinancial corporations
								-14	393	- Other resident sectors
								22	329	- Nonresidents
								-1294	**96**	c. ther deposits
								-1693	**69**	i. In national currency
										- Central bank
								-4	104	- Other depository corporations
								7	5	- Other financial corporations
								-5		- Central government
								2	-45	- State and local government
								19	11	- Public nonfinancial corporations
								-1750		- Other nonfinancial corporations
								31		- Other resident sectors
								7	-6	- Nonresidents
								399	**27**	ii. In foreign currency
										- Central bank
								11	1	- Other depository corporations
								10		- Other financial corporations
								-5		- Central government
								3		- State and local government
								-3		- Public nonfinancial corporations
								16		- Other nonfinancial corporations
								343		- Other resident sectors
								24	26	- Nonresidents
							72	**148**	**6**	**3. Securities other than share**
										a. Central bank
							6	12	11	b. Other depository corporations
							36	19		c. Other financial corporations
										d. Central government
							-4	-10		e. State and local government
							-9	23		f. Public nonfinancial corporations
							17	53		g. Other nonfinancial corporations
							18	59		h. Other resident sectors
							8	-8	-5	i. Nonresidents

Table 8.9. Detailed Flow of Funds (Lower right quadrant)

							7	22		**4. Loans**
							-7	22		a. Central bank
							-3			b. Other depository corporations
							10			c. Other financial corporations
										d. Central government
										e. State and local government
										f. Public nonfinancial corporations
							4			g. Other nonfinancial corporations
										h. Other resident sectors
							3			i. Nonresidents
									61	**5. Shares and other equity**
										a. Central bank
								-50		b. Other depository corporations
							100			c. Other financial corporations
									61	d. Central government
										e. State and local government
										f. Public nonfinancial corporations
							100			g. Other nonfinancial corporations
							-200	50		h. Other resident sectors
										i. Nonresidents
							7124			**6. Insurance technical reserves**
										a. Net equity of households on life insurance
							6764			reserves and on pension funds
										b. Prepayments of premiums and reserves
							360			against outstanding claims
							5			i. Central bank
							9			ii. Other depository corporations
							7			iii. Other financial corporations
							3			iv. Central government
							6			v. State and local government
							12			vi. Public nonfinancial corporations
							124			vii. Other nonfinancial corporations
							89			viii. Other resident sectors
							105			ix. Nonresidents
							32	**-1**	**43**	**7. Financial derivatives**
							9	5		a. Central bank
							12	-8	27	b. Other depository corporations
							-7	2	-5	c. Other financial corporations
										d. Central government
										e. State and local government
							5	7	4	f. Public nonfinancial corporations
								-5	-2	g. Other nonfinancial corporations
								12		h. Other resident sectors
							13	-14	19	i. Nonresidents
							73	**151**	**-9**	**8. Other accounts receivable/payable**
							12	22	-3	a. Trade credit and advances
							2	4		i. Central bank
							4	6	-11	ii. Other depository corporations
							-6	8	11	iii. Other financial corporations
							8	5	7	iv. Central government
							-3	3	-3	v. State and local government
							5	-3	9	vi. Public nonfinancial corporations
							-7	-9	-2	vii. Other nonfinancial corporations
										viii. Other resident sectors
							9	8	-14	ix. Nonresidents
							61	129	-6	b. Other
							27	-125	6	i. Resident sectors
							34	254	-12	ii. Nonresidents
Liabilities of:							Financial corporations			
			Other	Public			Other	Other		
		Other resident	nonfinancial	nonfinancial	State and local	Central	Financial	Depository	Central	
Total	Nonresidents	sectors	corporations	corporations	government	government	Corporations	Corporations	bank	
(10)	(9)	(8)	(7)	(6)	(5)	(4)	(3)	(2)	(1)	

APPENDIX 1. ACCOUNTS WITH THE IMF

INTRODUCTION

466. This appendix describes the recommended treatment of accounts with the IMF (the Fund) in monetary statistics. This subject warrants particular attention because of the special characteristics of member countries' financial relations with the Fund and the special accounting procedures used by member countries for recording their financial positions with the Fund.

467. The Fund is a cooperative intergovernmental monetary and financial institution. Its policies and activities are guided by its charter, known as the Articles of Agreement (the Articles). The Fund is unique among intergovernmental organizations in its combination of regulatory, consultative, and financial functions.[51]

468. The Fund maintains a large pool of resources from which it can draw funds to help finance temporary imbalances in the balance of payments of its members. These resources are of a revolving character and are derived from deposits made by member countries at the time they join the Fund or when their quota subscriptions are increased following periodic reviews of the quotas. The Fund can supplement these resources temporarily by borrowing from its members.

469. The use of Fund resources most often takes place within the framework of Stand-By or Extended Fund Facility (EFF) Arrangements between the member and the Fund. In such cases, a member acquires Fund resources by using its currency to purchase SDRs or readily usable foreign exchange from the Fund. To settle obligations to the Fund arising from the use of Fund resources, a member repurchases its currency from the Fund using SDRs or foreign exchange. All accounts and transactions of the Fund are denominated in SDRs.

470. On several occasions, the Fund has acted as a source of additional international liquidity through the creation and allocation to its members of SDRs, a reserve asset that can be transferred among Fund members and other authorized holders including the Fund. The Fund also maintains a range of additional financial arrangements, including the Poverty Reduction and Growth Facility (PGRF), formerly called the Enhanced Structural Adjustment Facility (ESAF) Trust, in which it technically acts as trustee.

471. The financial transactions and operations of the Fund are conducted through the General Department, the SDR Department, and the Administered Accounts. The bulk of transactions between member countries and the Fund take place through the General Resources Account (GRA), which is part of the General Department. This account handles the receipt of quota subscriptions, purchases and repurchases, receipt and refunding of charges, payment of remuneration on members' loan claims and on creditor positions in the Fund, and repayment of principal to the Fund's lenders. The assets held in the GRA comprise currencies of Fund member countries and the Fund's own holdings of SDRs and gold. The SDR Department records all transactions and operations involving SDRs. Administered Accounts are legally and financially separate from all other accounts of the Fund. They represent resources that have been contributed by members and held by the Fund for purposes that are consistent with the Articles, such as financial and technical assistance.

RECORDING OF IMF ACCOUNTS

472. The principles relating to sectorization, classification of financial instruments, and valuation that this manual recommends apply

[51] For a detailed discussion of the Fund's financial organization and operations, see International Monetary Fund, *Financial Organization and Operations of the IMF*, IMF Pamphlet Series, No. 45 fifth edition (Washington: International Monetary Fund, 1998).

equally to the treatment of Fund accounts. Thus, the central bank's SDR-denominated positions with the Fund should be valued (in local currency) at market exchange rates, and assets and liabilities should be recorded on a gross basis. All transactions with the Fund are with the rest of the world (i.e., nonresidents).

473. The following section describes the procedures in the monetary statistics when all Fund accounts are recorded in the central bank balance sheet. This is followed by a discussion of the statistical treatment of Fund accounts for countries in which positions with the Fund and transactions with the Fund are shared between the central bank and the government.

THE CENTRAL BANK'S BALANCE SHEET INCLUDES ALL FUND ACCOUNTS

474. In the majority of member countries, the central bank is the sole institution that transacts with the Fund. In such cases, the central bank records all of the member's transactions with the Fund and the member's balances in the various Fund accounts. The balance sheet of the central bank will then normally include the following:

On the assets side:

- *Holdings of SDRs* that can be acquired through allocations by the Fund or through transactions with the Fund or other designated holders.

- *Claims on the IMF* arising from (1) the country's payment of its quota subscription in reserve assets and national currency and (2) loans to the Fund.

On the liabilities side:

- *Deposits of the IMF* at the country's central bank that are maintained in the IMF No. 1 and No. 2 accounts and, in some cases, in a securities account. Balances in these accounts are created by (1) the payment of the national currency component of the quota subscription and (2) purchases of the Fund's resources (normally in the form of SDRs or convertible foreign currency) in exchange for domestic currency.[52] Such purchases are conducted through the GRA. They can include the use of the country's reserve tranche (discussed below) and use of Fund credit under various Fund facilities, principally Stand-By and Extended Arrangements.

- *Loans received from the IMF* that are provided through accounts administered by the Fund; PRGF loans are the principal example.

- *Allocations of SDRs* that are provided to member countries by the Fund with no requirement to repay and are recorded in the central bank's balance sheet under the category for *shares and other equity* rather than as foreign liabilities.

- *Exchange revaluations*, also recorded under *shares and other equity*, reflect the counterparts to changes, positive or negative, in all of the above positions with the Fund that are due to changes in the market exchange rate between the member's currency and the SDR.

475. A country's financial position with the Fund can also be presented in an analytic format that focuses on the components of IMF-related assets that are considered to be reserve assets and IMF-related liabilities that arise from the use of Fund credit and loans. This presentation, shown in Table 1, identifies the following IMF-related positions:

- *Holdings of SDRs.* This item can be directly identified in the balance sheet of the central bank.

- *Reserve tranche position in the IMF.* The reserve tranche position in the Fund is an international reserve asset that represents a member's automatic (unconditional) drawing right in the Fund, created by the payment of the foreign exchange component of the quota subscription and capable of being expanded by the Fund's use of the member's currency in its

[52]Balances in the IMF No. 2 account, which can be used to cover a country's administrative expenses associated with its membership in the Fund, are created by the Fund's transferring up to one-tenth of one percent of quota from the IMF No. 1 account.

transactions with other member countries.[53] A country's reserve tranche position is equal to its quota *less* the Fund's holdings of the member's currency that are not related to use of Fund credit. The domestic currency component of a member's quota subscription (about three-quarters of the total subscription) is a foreign asset of the member but is not considered a reserve asset because it is not readily available to the member to finance the member's external payments. A member's reserve tranche position cannot be constructed directly from information in the sectoral balance sheet of the central bank; detailed accounting records of the country's transactions with the Fund are required to identify separately the components of Fund holdings of the member's currency that are needed for the calculation.

- *Loans to the IMF.* This item can be directly identified in the balance sheet of the central bank.

- *Use of Fund credit.* This item measures the member's outstanding purchases of Fund resources through the GRA, the counterparts of which are increases in the member's national currency liabilities to the Fund. Outstanding purchases of Fund resources through the GRA are equal to all purchases minus repurchases, excluding transactions within the reserve tranche. Detailed records of the member's transactions with the Fund are required to identify the components of the Fund's holdings of the member's currency that arise from the use of Fund credit.

- *Loans from the IMF.* This item can be directly identified in the balance sheet of the central bank.

[53]For example, if member A purchases member B's currency in the course of using Fund resources, the Fund's holdings of B's currency fall, and there is an equal increase in B's reserve tranche position. This increase in B's reserve tranche position recognizes the possibility that A will ask B to exchange its national currency for reserve assets such as U.S. dollars or SDRs.

Table 1. IMF-Related Reserve Assets and Reserve-Related Liabilities – Analytical Presentation

Assets		Liabilities	
(i)	SDR holdings	(i)	Use of Fund credit
(ii)	Reserve tranche position	(ii)	Loans from the IMF
(iii)	Loans to the IMF		

FUND ACCOUNTS ARE INCLUDED IN THE BALANCE SHEETS OF THE CENTRAL BANK AND THE MINISTRY OF FINANCE

476. In a number of countries, not all transactions with the Fund are undertaken by the central bank. In most of these countries, the Ministry of Finance undertakes transactions with the Fund without central bank involvement. The central bank's balance sheet may record only minimal balances in the IMF No. 1 and No. 2 accounts, while all other positions with the Fund are financial assets and liabilities of the government. A typical example of such a situation would have the quota subscription, holdings of SDRs, the allocation of SDRs, and balances in the securities account outside the balance sheet of the central bank. It should be noted that, while the accounting presentation for this case differs from that in the previous section, the consolidated analytical format (as shown in Table 1) would be the same.

477. Many users of monetary statistics find it useful for analytical and financial programming purposes to consolidate all of the members' positions with the Fund. This technique is also often applied to currency issue and transactions in other international reserve assets undertaken by the Ministry of Finance or other agencies outside the central bank. The resulting augmented central bank balance sheet is commonly known as the monetary authorities account.

478. The consolidation of Fund account positions of the government in the monetary authorities account expands the gross foreign assets and liabilities recorded in that account and enables it to be linked directly to the changes in Fund-related international reserve assets and reserve-related liabilities that are recorded in the balance of payments statistics. It also creates counterpart relationships between the monetary authorities and the central government that must be recorded in the monetary authorities account to ensure the integrity of the double-entry accounting system. For example, when a country's quota position in the Fund is moved from the balance sheet of the Ministry of Finance to the monetary authorities account, the monetary authorities acquire a foreign asset and a corresponding liability to the government. Similarly, when the monetary authorities acquire from the government liabilities to the Fund in the form of balances in the securities account, they also acquire a corresponding claim on the government.

479. One way of recording the counterparts arising from the consolidation of the government's positions into the monetary authorities' account is to record the counterparts on a net basis in a separate government account ("Fund consolidation account") on the asset side either as a component of net credit to government or as a separate asset category. This treatment gives explicit recognition to the consolidation process. With this treatment, a transaction with the Fund undertaken by the government may or may not result in changes in net credit to government, as recorded in the monetary authorities account.

480. For example, when the Ministry of Finance sells SDRs to the Fund to acquire foreign exchange, the monetary authorities account would record a reduction in holdings of SDRs and an increase in foreign exchange assets. Counterpart entries in the Fund consolidation account would net to zero, that is, there would be no change in net credit to government. If the government subsequently spends the foreign exchange obtained in this transaction to finance its budget deficit, the monetary authorities account would record a decrease in foreign exchange assets and an increase in net claims on the government in the Fund consolidation account.

481. Similarly, use of Fund credit by the Ministry of Finance would be recorded in the monetary authorities account as an increase in foreign liabilities (a change in the securities account balance), an increase in foreign exchange assets, and no change in net claims on government in the Fund consolidation account. If the government uses the proceeds of a purchase from the Fund to finance its budget deficit, the Fund consolidation account in the monetary authorities account would record an increase in net credit to the government.

482. In compiling a monetary authorities account that includes government positions with the Fund, care should be taken to avoid the introduction of valuation and other adjustments that can distort, among other things, the measurement of net claims on government in the Fund consolidation account. Statistical compilers are encouraged to base the consolidation of Fund account positions of the government on national records, after verifying their completeness and accuracy. Calculation of the government's positions with the Fund as a residual—determined as the difference between the Fund's records of the member's positions and the central bank's records of its positions—often results in distortions in the value of net credit to government recorded in the Fund consolidation account.

Appendix 2. Islamic Banking[54]

483. Activities of Islamic financial institutions differ from those of standard commercial depository corporations in that predetermined interest on financial transactions is prohibited[55]. However, commercial trade and investment for profit are acceptable and encouraged. Islamic financial institutions operate by participating in investments, sharing profits on projects, and earning fees for services rendered. For example, Islamic financial institutions offer investors/depositors participation in risk-bearing, open-ended, mutual fund-type packages rather than fixed interest on deposits.

484. Several special types of depository accounts and financial instruments permit Islamic financial institutions to engage in some commercial banking activities. Generally, any risk-bearing instrument reflecting a real asset and earning a variable rate of return tied to the performance of the asset is considered to be consistent with Islamic law. Use of financial instruments with returns specified before investment is not permitted, but sharing of the returns by some formula after the fact is acceptable. Some financial activities may have some sort of established rate of return that could be created, for example, by the purchase and resale of trade goods at trade margins affected by market competition or standard practices.

485. The functions of Islamic financial institutions can be divided into two parts: the safeguarding of deposits and the partnership of financial institutions with shareholders and depositors in profit-making ventures. Demand deposit facilities (called *Amanah* or *Qard-hasan deposits*) are similar to the safekeeping and transferable deposit functions performed in standard commercial banking. The *Amanah* or *Qard-hasan* deposits pay no returns, and the financial institution is obligated to preserve the nominal value of the deposit. (For purposes of preparing monetary statistics, Islamic deposit facilities should be treated in the same way as standard deposits in depository corporations.)

486. The partnership activities of Islamic financial institutions have mixed features that include conventional bank intermediation, mutual funds, or limited partnerships. To a large extent, Islamic financial institutions act as conventional intermediaries by issuing deposit-like instruments to the public in order to raise funds to finance commercial activity. The deposit-like instruments and the financial institutions' investments must be designed to expose both the depositors and the financial institutions to profits or losses on the ventures. Thus, the investments—many are negotiable and known by names such as "participation term certificates," "profit and loss sharing (PLS) certificates," and "investment deposit certificates"—have properties similar to those of shares in a company or a mutual fund.

487. An Islamic financial institution serving as an intermediary may act as a partner or as a provider of services in profit-making ventures and thus has some characteristics in common with mutual funds, financial leasing companies, or brokers. Because of the joint participation among an Islamic financial institution, shareholders, and depositors in equity investments, the financial institution per se is not as exposed to risk as is a conventional, commercial, financial intermediary. In addition, the structure of the balance sheet of an Islamic financial institution may differ from that of a standard commercial depository corporation. For example, the equity capital base of an Islamic financial institution may be larger than that of a commercial depository corporation; an Islamic financial institution's loan portfolio may be concentrated in short-term trade instruments; and the nature of banking strategies and risks may differ.

[54] This appendix draws on Zubair Iqbal and Abbas Mirakhor, *Islamic Banking* (Washington: International Monetary Fund, 1987).

[55] The Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) has set accounting, auditing, governance, Shari'a and ethical standards for Islamic financial institutions. The AAOIFI is a self-regulatory international autonomous non-profit organization that was established in 1991 in Bahrain.

488. The prevailing statistical practice is to classify Islamic financial institutions in the *other depository corporations* subsector. The implication of this practice is that participation certificates and other investment deposits are treated the same way as regular deposits for statistical reporting purposes. The participation of many Islamic financial institutions in bank clearing systems and a concentration of lending activity in traditional, short-term commercial and trade financing are practices that tend to reinforce this classification. Islamic financial institutions that are not primarily involved in deposit-taking activities are classified as other financial corporations. Islamic financial institutions investing mainly as long-term partners in business ventures are akin to mutual funds, and the liabilities of these financial institutions to the public should be classified as stock.

489. The following list details sources of funds for Islamic financial institutions.

- *Amanah and Qard-hasan deposits* are conventional deposit and transfer accounts for safekeeping and transferable checking, and they pay no returns. The deposits are usually considered part of the resources of the financial institution, but the financial institution is required to guarantee the face value of the deposits.

- A *Mudarabah* is a contract between investors and a financial institution that, as a silent partner, invests deposits in a commercial activity that earns each partner an agreed-upon portion of the profits on the venture. A Mudarabah can be entered into for a single investment or on a continuing basis with the financial institution acting as a fiduciary. Mudarabah investments may be made for fixed terms and arranged through negotiable instruments (called investment deposit certificates or Mudarabah certificates) and thus may have characteristics similar to those of stock.

- *Participation term certificates* are long-term investment instruments that entitle the holder to a share of a corporation's profit. These certificates should be classified as deposits if the certificates are treated as liabilities of a financial institution and are not part of its permanent capital base.

- *Profit and loss sharing certificates* and *investment deposit certificates* are investors' deposits, such as Mudabarah certificates, that resemble shares in a company and should be classified as deposits.

490. The following list covers the primary types of credit supplied by Islamic financial institutions.

- *Qard-hasan loans* are return-free loans that are made to needy individuals or for some social purpose.

- *Murabaha* refers to contracts in which a financial institution purchases goods upon the request of a client, who makes deferred payments that cover costs and an agreed-upon profit margin for the financial institution. The financial institution handles payments to a supplier and incidental expenses of delivery (against a deferred payment that is made by the buyer to cover delivery costs and an agreed-upon share of the buyer's markup). Murabaha should be classified as loans.

- A *Musharakah* is a partnership between a financial institution and an enterprise in which the financial institution supplies working capital. Notes of participation sold to investors provide the funding. A Musharakah should be classified as a loan.

- An *Ijara* is a lease-purchase contract in which a financial institution purchases capital equipment or property and leases it to an enterprise. The financial institution may either rent the equipment or receive a share of the profits earned through its use. An Ijara should be classified as a loan.

- *Ijara Wa Iktina* are the same as *Ijara* except that the lessee can acquire ownership of the asset by making installment payments. Ijara Wa Iktina should be classified as loans.

- A *Salaf* (sometimes referred to as *Salam*) is a short-term agreement in which a financial institution makes full prepayments for future delivery of a specified quantity of goods on a specified date. A Salaf should be classified as a loan.

- Zakat funds are special funds that are maintained by Islamic financial institutions, used for social purposes, and financed by contributions from depositors. Zakat funds are not part of the financial institution's sources of funds.

491. The *1993 SNA* classification scheme for financial instruments can provide additional detail to include special categories for Islamic financial instruments that compilers may use to separately identify Islamic instruments. For example:

- *Islamic instruments—deposits* include conventional and transferable deposits as well as various investment participation certificates that are not investments in the permanent capital of a financial institution and do not have the characteristics of tradable securities.

- *Islamic instruments—securities other than shares* consist of various investment participation certificates that have the characteristics of tradable securities and are not investments in the permanent capital of a financial institution. Included in this category are the most tradable investment certificates recorded as liabilities of a financial corporation.

- *Islamic instruments—loans* cover arrangements in which a financial institution makes prepayments, finances ventures or trade, or supplies working capital to clients. The arrangements may include short-term or other partnerships in which a financial institution is not making permanent, equity-type investments.

- *Islamic instruments—shares and other equity* include various investment participation certificates that are part of the permanent capital of a financial institution or are clearly representative of a partnership between an investor and a financial corporation.

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Appendix 3. Illustrative Sectoral Balance Sheets

Table 1: Sectoral Balance Sheet for Central Bank

Table 2: Sectoral Balance Sheet for Other Depository Corporations

Table 3: Sectoral Balance Sheet for Other Financial Corporations

Table 1. Sectoral Balance Sheet for Central Bank					
Assets	Opening Stock	Transactions	Valuation Changes	Other Changes in Volume	Closing Stock
Monetary gold and SDRs	**430**	**70**	**47**	3	**550**
Monetary gold	303	26	28	3	360
SDRs	127	44	19		190
Currency and deposits	**4635**	**1571**	**694**		**6900**
Currency	29	15	3		47
National					
Foreign	29	15	3		47
Transferable deposits	2605	654	391		3650
In national currency					
Central bank					
Other depository corporations					
Other financial corporations					
Nonresidents					
In foreign currency	2605	654	391		3650
Central bank					
Other depository corporations					
Other financial corporations					
Nonresidents	2605	654	391		3650
Other deposits	2001	902	300		3203
In national currency					
Central bank					
Other depository corporations					
Other financial corporations					
Nonresidents					
In foreign currency	2001	902	300		3203
Central bank					
Other depository corporations					
Other financial corporations					
Nonresidents	2001	902	300		3203
Securities other than shares	**7907**	**136**	**1186**		**9229**
Central bank					
Other depository corporations					
Other financial corporations		347			347
Central government	4105	-1109	616		3612
State and local government					
Public nonfinancial corporations		250			250
Other nonfinancial corporations					
Other resident sectors					
Nonresidents	3802	648	570		5020

Loans	**8665**	**969**	**990**	-10	**10614**
Central bank					
Other depository corporations	1506	-136			1370
Other financial corporations	25	7			32
Central government	409	2	14		425
State and local government	33	-6			27
Public nonfinancial corporations	125	-23		-5	97
Other nonfinancial corporations	42	2		-3	41
Other resident sectors	17	-5		-2	10
Nonresidents	6508	1128	976		8612
Shares and other equity	**59**		**2**		**61**
Central bank					
Other depository corporations	59		2		61
Other financial corporations					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
Nonresidents					
Insurance technical reserves	**35**	**5**	**-1**		**39**
Other financial corporations	16	2			18
Nonresidents	19	3	-1		21
Financial derivatives	**936**	**131**	**126**		**1193**
Central bank					
Other depository corporations	75	37	9		121
Other financial corporations	46	-8	-3		35
Central government					
State and local government					
Public nonfinancial corporations	35	26	5		66
Other nonfinancial corporations	29	-15	2		16
Other resident sectors					
Nonresidents	751	91	113		955
Other accounts receivable	**172**	**8**	**-8**		**172**
Trade credit and advances	**106**	**17**	**-14**		**109**
Central bank					
Other depository corporations	14	-6			8
Other financial corporations	23	4			27
Central government					
State and local government					
Public nonfinancial corporations	19	-2			17
Other nonfinancial corporations	22	8			30
Other resident sectors		6			6
Nonresidents	28	7	-14		21
Other	**66**	**-9**	**6**		**63**
Other resident sectors	39	7	2		48
Nonresidents	27	-16	4		15
Nonfinancial assets	**1222**	**25**	**7**	**-7**	**1247**
TOTAL ASSETS	**24061**	**2915**	**3043**	**-14**	**30005**

Liabilities	Opening Stock	Transactions	Valuation Changes	Other Changes in Volume	Closing Stock
Currency in circulation	**4007**	**250**			**4257**
Deposits included in broad money	**3719**	**394**	**8**	**-3**	**4118**
Transferable deposits	**3269**	**423**	**8**	**-3**	**3697**
In national currency	69	20			89
Other financial corporations	21	7			28
State and local government					
Public nonfinancial corporations	48	13			61
Other nonfinancial corporations					
Other resident sectors					
In foreign currency	3200	403	8	-3	3608
Other financial corporations	33	10	8	-3	48
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors	3167	393			3560
Other deposits	**450**	**-29**			**421**
In national currency	450	-29			421
Other financial corporations	70	5			75
State and local government	230	-45			185
Public nonfinancial corporations	150	11			161
Other nonfinancial corporations					
Other resident sectors					
In foreign currency					
Other financial corporations					
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
Deposits excluded from broad money	**13988**	**2170**	**-221**	**3**	**15940**
Transferable deposits	**13809**	**2045**	**-238**	**3**	**15619**
In national currency	13184	1578			14762
Central bank					
Other depository corporations	10479	1466			11945
Other financial corporations					
Central government	1000	315			1315
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
Nonresidents	1705	-203			1502
In foreign currency	625	467	-238	3	857
Central bank					
Other depository corporations	500	138	-261	7	384
Other financial corporations					
Central government					
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
Nonresidents	125	329	23	-4	473

Other deposits	**179**	**125**	**17**		**321**
In national currency	64	98			162
Central bank					
Other depository corporations	26	104			130
Other financial corporations					
Central government					
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
Nonresidents	38	-6			32
In foreign currency	115	27	17		159
Central bank					
Other depository corporations	66	1	10		77
Other financial corporations					
Central government					
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
Nonresidents	49	26	7		82
Securities other than shares, included in broad money					
In national currency					
Other financial corporations					
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
In foreign currency					
Other financial corporations					
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
Securities other than shares, excluded from broad money	**127**	**6**			**133**
In national currency	127	6			133
Central bank					
Other depository corporations	50	11			61
Other financial corporations					
Central government					
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
Nonresidents	77	-5			72
In foreign currency					
Central bank					
Other depository corporations					
Other financial corporations					
Central government					
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
Nonresidents					

Loans	**1105**		**1001**		**2106**
Central bank					
Other depository corporations					
Other financial corporations					
Central government					
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
Nonresidents	1105		1001		2106
Insurance technical reserves					
Net equity of households in life insurance reserves					
Residents					
Nonresidents					
Net equity of households in pension funds					
Residents					
Nonresidents					
Prepayment of premiums and reserves against outstanding claims					
Central bank					
Other depository corporations					
Other financial corporations					
Central government					
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
Nonresidents					
Financial derivatives	**439**	**43**	**210**		**692**
Central bank					
Other depository corporations	234	27	24	5	290
Other financial corporations	22	-5	5	-5	17
Central government					
State and local government					
Public nonfinancial corporations	31	4	1		36
Other nonfinancial corporations	26	-2	5		29
Other resident sectors					
Nonresidents	126	19	175		320
Other accounts payable	**288**	**-9**	**-12**	**-14**	**253**
Trade credit and advances	**166**	-3	**5**		**168**
Central bank					
Other depository corporations	32	-11			21
Other financial corporations	24	11			35
Central government	16	7			23
State and local government	14	-3			11
Public nonfinancial corporations	23	9			32
Other nonfinancial corporations	21	-2			19
Other resident sectors					
Nonresidents	36	-14	5		27
Other	122	-6	-17	-14	85
Resident sectors	69	6	16	-14	77
Nonresidents	53	-12	-33		8

Shares and other equity	**388**	**61**	**2057**		**2506**
Funds contributed by owners	122				122
Retained earnings	95	52			147
General and special reserves	46	9			55
SDR allocations	37		4		41
Valuation adjustment	88		2053		2141
TOTAL LIABILITIES	**24061**	**2915**	**3043**	**-14**	**30005**
Memorandum Items					
Assets					
1. Central bank float (applicable to central bank only)	**133**	**45**			**178**
2. Loans: Of which accrued interest	**170**	**42**			**212**
3. Loans: Of which interest arrears	**1**				**2**
Central bank					
Other depository corporations					
Other financial corporations					
Central government					
State and local government					
Public nonfinancial corporations	1				2
Other nonfinancial corporations					
Other resident sectors					
Nonresidents					
4. Loans: Of which expected losses	**10**				**10**
Central bank					
Other depository corporations					
Other financial corporations					
Central government					
State and local government					
Public nonfinancial corporations	10				10
Other nonfinancial corporations					
Other resident sectors					
Nonresidents					
Liabilities					
1. Loans: Of which accrued interest	**2**	**1**			**3**
2. Loans: Of which interest arrears					
3. Shares and other equity: Market value, by holding sector	**100**				**100**
Central bank					
Other depository corporations					
Other financial corporations					
Central government	100				100
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
Nonresidents					

Table 2. Sectoral Balance Sheet for Other Depository Corporations

Assets	Opening Stock	Transactio s	Valuation Changes	Other Changes in Volume	Closing Stock
Monetary gold and SDRs					
Monetary gold					
SDRs					
Currency and deposits	**26070**	**2161**	**2212**	**24**	**30467**
Currency	1591	283	141	5	2020
National	357	71	-2	2	428
Foreign	1234	212	143	3	1592
Transferable deposits	23119	1764	1874	13	26770
In national currency	9981	1528		11	11520
Central bank	9767	1562		1	11330
Other depository corporations	214	-34		10	190
Other financial corporations					
Nonresidents					
In foreign currency	13138	236	1874	2	15250
Central bank	500	138	74	1	713
Other depository corporations	29	3	-1	1	32
Other financial corporations					
Nonresidents	12609	95	1801		14505
Other deposits	1360	114	197	6	1677
In national currency	41	105		3	149
Central bank	26	100		2	128
Other depository corporations	15	5		1	21
Other financial corporations					
Nonresidents					
In foreign currency	1319	9	197	3	1528
Central bank	66	1	10		77
Other depository corporations	8	-2		3	9
Other financial corporations					
Nonresidents	1245	10	187		1442
Securities other than shares	**9432**	**132**	**147**	**18**	**9729**
Central bank	50	11			61
Other depository corporations	85	4		2	91
Other financial corporations	32		3	1	36
Central government	8796	111	99	6	9012
State and local government	112	-9		2	105
Public nonfiinancial corporations	4		-4	3	3
Other nonfinancial corporations	13	8	-2	4	23
Other resident sectors					
Nonresidents	340	7	51		398

Loans	**98381**	**-173**	**607**	**-523**	**98292**
Central bank					
Other depository corporations					
Other financial corporations	11	-5			6
Central government					
State and local government	12	5			17
Public nonfinancial corporations	5696	200	66	-54	5908
Other nonfinancial corporations	72034	-459	296	-296	71575
Other resident sectors	20216	55	175	-175	20271
Nonresidents	412	31	70	2	515
Shares and other equity	**226**	**7**	**9**	**4**	**246**
Central bank					
Other depository corporations					
Other financial corporations	65		-9		56
Public nonfinancial corporations	13		1		14
Other nonfinancial corporations	24		1	1	26
Other resident sectors					
Nonresidents	124	7	16	3	150
Insurance technical reserves	**20**				**20**
Other financial corporations	14	2			16
Nonresidents	6	-2			4
Financial derivatives	**155**	**4**	**14**	**4**	**177**
Central bank					
Other depository corporations	45	-3	2	2	46
Other financial corporations	32	4	6		42
Central government					
State and local government					
Public nonfinancial corporations	23	5	6		34
Other nonfinancial corporations	20	10	5		35
Other resident sectors					
Nonresidents	35	-12	-5	2	20
Other accounts receivable	**314**	**12**	**3**	**5**	**334**
Trade credit and advances	**129**	**16**		**3**	**148**
Central bank	32	2			34
Other depository corporations	23	-3			20
Other financial corporations	6	-2		1	5
Central government	9	1			10
State and local government	4	6			10
Public nonfinancial corporations	2	3			5
Other nonfinancial corporations	33	10		2	45
Other resident sectors	5	4			9
Nonresidents	15	-5			10
Other	**185**	**-4**	**3**	**2**	**186**
Resident sectors	117	-18	3		102
Nonresidents	68	14		2	84
Nonfinancial assets	**15555**	**1246**	**213**	**-3**	**17011**
TOTAL ASSETS	**150153**	**3389**	**3205**	**-471**	**156276**

Liabilities	Opening Stock	Transactions	Valuation Changes	Other Changes in Volume	Closing Stock
Currency in circulation					
Deposits included in broad money	**91437**	**2775**	**2520**		**96732**
Transferable deposits	**39418**	**4120**	**31**		**43569**
In national currency	39216	4118			43334
Other financial corporations	8675	867			9542
State and local government	436	44			480
Public nonfinancial corporations	6510	826			7336
Other nonfinancial corporations	12944	1312			14256
Other resident sectors	10651	1069			11720
In foreign currency	202	2	31		235
Other financial corporations	34	3	5		42
State and local government	12	1	2		15
Public nonfinancial corporations	24	-3	4		25
Other nonfinancial corporations	78	8	12		98
Other resident sectors	54	-7	8		55
Other deposits	**52019**	**-1345**	**2489**		**53163**
In national currency	35429	-1708			33721
Other financial corporations	37	4			41
State and local government	46	-2			44
Public nonfinancial corporations	103	12			115
Other nonfinancial corporations	12367	-1744			10623
Other resident sectors	22876	22			22898
In foreign currency	16590	363	2489		19442
Other financial corporations	23	5	3		31
State and local government	8		1		9
Public nonfinancial corporations	17	-3	3		17
Other nonfinancial corporations	2645	14	397		3056
Other resident sectors	13897	347	2085		16329
Deposits excluded from broad money	**3595**	**206**	**159**		**3960**
Transferable deposits	**2524**	**155**	**46**		**2725**
In national currency	2210	128			2338
Central bank					
Other depository corporations	216	14			230
Other financial corporations	277	-12			265
Central government	35	3			38
State and local government	14	-2			12
Public nonfinancial corporations	52	5			57
Other nonfinancial corporations	278	-7			271
Other resident sectors	168	9			177
Nonresidents	1170	118			1288
In foreign currency	314	27	46		387
Central bank					
Other depository corporations	35	8	5		48
Other financial corporations	27	-6	4		25
Central government	3				3
State and local government	16	8	2		26
Public nonfinancial corporations	34	-12	5		27
Other nonfinancial corporations	84	14	13		111
Other resident sectors	88	-7	13		94
Nonresidents	27	22	4		53

Other deposits	**1071**	**51**	**113**		**1235**
In national currency	310	15			325
Central bank					
Other depository corporations	15	-4			11
Other financial corporations	5	3			8
Central government	9	-5			4
State and local government	3	4			7
Public nonfinancial corporations	4	7			11
Other nonfinancial corporations	7	-6			1
Other resident sectors	9	9			18
Nonresidents	258	7			265
In foreign currency	761	36	113		910
Central bank					
Other depository corporations	8	11	1		20
Other financial corporations	3	5			8
Central government	9	-5	1		5
State and local government	5	3	1		9
Public nonfinancial corporations	2				2
Other nonfinancial corporations	4	2	1		7
Other resident sectors	7	-4	1		4
Nonresidents	723	24	108		855
Securities other than shares, included in broad money	**27097**	**37**	**4167**		**31301**
In national currency	26426	27	4041		30494
Other financial corporations	77	6	17		100
State and local government	9	-2	1		8
Public nonfinancial corporations	458	7	80		545
Other nonfinancial corporations	13425	29	2044		15498
Other resident sectors	12457	-13	1899		14343
In foreign currency	671	10	126		807
Other financial corporations	24	2	7		33
State and local government	12	-5	2		9
Public nonfinancial corporations	15	7	4		26
Other nonfinancial corporations	275	22	51		348
Other resident sectors	345	-16	62		391
Securities other than shares, excluded from broad money	**1705**	**111**	**338**	**11**	**2165**
In national currency	1218	75	252	10	1555
Central bank					
Other depository corporations	35	2	5		42
Other financial corporations	74	2	14	2	92
Central government					
State and local government	12	3	2		17
Public nonfinancial corporations	45	-3	11	1	54
Other nonfinancial corporations	87	-2	19	4	108
Other resident sectors	96	95	24		215
Nonresidents	869	-22	177	3	1027
In foreign currency	487	36	86	1	610
Central bank					
Other depository corporations	55	10	13		78
Other financial corporations	32	9	5		46
Central government					
State and local government	24	-6	9		27
Public nonfinancial corporations	43	12	6		61
Other nonfinancial corporations	55	4	12	1	72
Other resident sectors	62	-7	9		64
Nonresidents	216	14	32		262

Loans	**2147**	**22**	**-2**	3	**2170**
Central bank	1506	22			1528
Other depository corporations					
Other financial corporations					
Central government	45			1	46
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
Nonresidents	596		-2	2	596
Insurance technical reserves					
Net equity of households in life insurance reserves					
Residents					
Nonresidents					
Net equity of households in pension funds					
Residents					
Nonresidents					
Prepayment of premiums and reserves against outstanding claims					
Central bank					
Other depository corporations					
Other financial corporations					
Central government					
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
Nonresidents					
Financial derivatives	**340**	**-1**	**95**	6	**440**
Central bank	75	5	15		95
Other depository corporations	45	-8	33	3	73
Other financial corporations	12	2	-2		12
Central government					
State and local government					
Public nonfinancial corporations	14	7		2	23
Other nonfinancial corporations	23	-5	-1		17
Other resident sectors	59	12	19		90
Nonresidents	112	-14	31	1	130
Other accounts payable	**3732**	**151**	**-12**	-537	**3334**
Trade credit and advances	**106**	**22**		3	**131**
Central bank	14	4			18
Other depository corporations	23	6			29
Other financial corporations	4	8			12
Central government	7	5			12
State and local government	5	3			8
Public nonfinancial corporations	6	-3		1	4
Other nonfinancial corporations	15	-9		2	8
Other resident sectors					
Nonresidents	32	8			40

Other	**3626**	**129**	**-12**	**-540**	3203
Resident sectors	1873	-125		-540	1208
Nonresidents	1753	254	-12		1995
Shares and other equity	**20100**	**88**	**-4060**	**46**	**16174**
Funds contributed by owners	7896			24	7920
Retained earnings	6342	76		12	6430
General and special reserves	4732	12		10	4754
SDR allocations					
Valuation adjustment	1130		-4060		-2930
TOTAL LIABILITIES	**150153**	**3389**	**3205**	**-471**	**156276**
Memorandum Items					
Assets					
1. Central bank float (applicable to central bank only)					
2. Loans: Of which accrued interest	**1960**	**30**			**1990**
3. Loans: Of which interest arrears	**19**				**16**
Central bank					
Other depository corporations					
Other financial corporations					
Central government					
State and local government					
Public nonfinancial corporations	2				2
Other nonfinancial corporations	6				4
Other resident sectors	8				7
Nonresidents	3				3
4. Loans: Of which expected losses	**143**				**132**
Central bank					
Other depository corporations					
Other financial corporations					
Central government					
State and local government					
Public nonfinancial corporations	10				8
Other nonfinancial corporations	70				64
Other resident sectors	60				57
Nonresidents	3				3
Liabilities					
1. Loans: Of which accrued interest	**12**				**12**
2. Loans: Of which interest arrears	**2**				**2**
3. Shares and other equity: Market value, by holding sector	**4500**		**450**		**4950**
Central bank					
Other depository corporations	150	-50	15		115
Other financial corporations	350		35		385
Central government					
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors	2500	50	250		2800
Nonresidents	1500		150		1650

Table 3. Sectoral Balance Sheet for Other Financial Corporations					
Assets	Opening Stock	Transactions	Valuation Changes	Other Changes in Volume	Closing Stock
Monetary gold and SDRs					
Monetary gold					
SDRs					
Currency and deposits	**11314**	**-1**	**325**	**-24**	**11614**
Currency	885	8	117	-5	1005
National	123	-14		-2	107
Foreign	762	22	117	-3	898
Transferable deposits	10150	43	183	-13	10363
In national currency	8947	58		-11	8994
Central bank	19	2		-1	20
Other depository corporations	8928	56		-10	8974
Other financial corporations					
Nonresidents					
In foreign currency	1203	-15	183	-2	1369
Central bank	31	3	6	-1	39
Other depository corporations	61	6	10	-1	76
Other financial corporations					
Nonresidents	1111	-24	167		1254
Other deposits	279	-52	25	-6	246
In national currency	112	-28		-3	81
Central bank	70	-22		-2	46
Other depository corporations	42	-6		-1	35
Other financial corporations					
Nonresidents					
In foreign currency	167	-24	25	-3	165
Central bank					
Other depository corporations	26	13	4	-3	40
Other financial corporations					
Nonresidents	141	-37	21		125
Securities other than shares	**114533**	**7252**	**1833**	**-18**	**123600**
Central bank					
Other depository corporations	207	15	4	-2	224
Other financial corporations	71	16	2	-1	88
Central government	22676	458	12	-6	23140
State and local government	3269	132	4	-2	3403
Public nonfinancial corporations	3024	-145	6	-3	2882
Other nonfinancial corporations	72897	5563	8	-4	78464
Other resident sectors					
Nonresidents	12389	1213	1797		15399

Loans	**13760**	**54**	**92**	**-76**	**13830**
Central bank					
Other depository corporations					
Other financial corporations	22	4			26
Central government					
State and local government					
Public nonfinancial corporations	5402	-167	15	-30	5220
Other nonfinancial corporations	4567	146	10	-25	4698
Other resident sectors	3257	88	8	-19	3334
Nonresidents	512	-17	59	-2	552
Shares and other equity	**118**	**11**	3	-6	**126**
Central bank					
Other depository corporations	12	11	2	-2	23
Other financial corporations	8				8
Public nonfinancial corporations					
Other nonfinancial corporations	56	7	-8	-1	54
Other resident sectors					
Nonresidents	42	-7	9	-3	41
Insurance technical reserves	**25**	3			**28**
Other financial corporations	18	2			20
Nonresidents	7	1			8
Financial derivatives	**135**	**30**	**6**	**-4**	**167**
Central bank	22	9			31
Other depository corporations	12	25	-1	-2	34
Other financial corporations	33	-6			27
Central government					
State and local government	2	4			6
Public nonfinancial corporations	12	3			15
Other nonfinancial corporations	22	-10			12
Other resident sectors					
Nonresidents	32	5	7	-2	42
Other accounts receivable	**1006**	**47**	**-21**	**-5**	**1027**
Trade credit and advances	**121**	**7**	**-1**	-3	**124**
Central bank	24	3			27
Other depository corporations	4	1			5
Other financial corporations	14	5	1	-1	19
Central government					
State and local government	17	11	-4		24
Public nonfinancial corporations	13	7			20
Other nonfinancial corporations	22	-8	2	-2	14
Other resident sectors					
Nonresidents	27	-12			15
Other	**885**	**40**	**-20**	**-2**	**903**
Resident sectors	155	24	-4		175
Nonresidents	730	16	-16	-2	728
Nonfinancial assets	**11111**	**33**	**-6**	**-2**	**11136**
TOTAL ASSETS	**152002**	**7429**	**2232**	**-135**	**161528**

Liabilities	Opening Stock	Transactions	Valuation Changes	Other Changes in Volume	Closing Stock
Currency in circulation					
Deposits included in broad money					
Transferable deposits					
In national currency					
Other financial corporations					
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
In foreign currency					
Other financial corporations					
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
Other deposits					
In national currency					
Other financial corporations					
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
In foreign currency					
Other financial corporations					
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
Deposits excluded from broad money					
Transferable deposits					
In national currency					
Central bank					
Other depository corporations					
Other financial corporations					
Central government					
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
Nonresidents					

In foreign currency					
Central bank					
Other depository corporations					
Other financial corporations					
Central government					
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
Nonresidents					
Other deposits					
In national currency					
Central bank					
Other depository corporations					
Other financial corporations					
Central government					
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
Nonresidents					
In foreign currency					
Central bank					
Other depository corporations					
Other financial corporations					
Central government					
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
Nonresidents					
Securities other than shares, Included In broad money					
In national currency					
Other financial corporations					
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					
In foreign currency					
Other financial corporations					
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations					
Other resident sectors					

Securities other than shares, excluded from broad money	**418**	**72**	**-64**	**-11**	**415**
In national currency	372	44	-50	-10	356
Central bank					
Other depository corporations	3	6			9
Other financial corporations	59	26	-13	-2	70
Central government					
State and local government	21	-6			15
Public nonfinancial corporations	45	-12	-4	-1	28
Other nonfinancial corporations	112	9	-16	-4	101
Other resident sectors	77	14			91
Nonresidents	55	7	-17	-3	42
In foreign currency	46	28	-14	-1	59
Central bank					
Other depository corporations					
Other financial corporations	12	10	-4		18
Central government					
State and local government	6	2	-2		6
Public nonfinancial corporations	7	3	-3		7
Other nonfinancial corporations	9	8	-1	-1	15
Other resident sectors	8	4	-2		10
Nonresidents	4	1	-2		3
Loans	**74**	**7**	**7**	**-3**	**85**
Central bank	25	-7	4		22
Other depository corporations	11	-3			8
Other financial corporations	22	10			32
Central government			1	-1	
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations	5	4	-2		7
Other resident sectors					
Nonresidents	11	3	4	-2	16

Insurance technical reserves	**139369**	**7124**	**1661**		**148154**
Net equity of households in life insurance reserves	31122	2377			33499
Residents	22357	2221			24578
Nonresidents	8765	156			8921
Net equity of households in pension funds	100211	4387	1661		106259
Residents	99999	4365	1620		105984
Nonresidents	212	22	41		275
Prepayment of premiums and reserves against outstanding claims	8036	360			8396
Central bank	16	5			21
Other depository corporations	14	9			23
Other financial corporations	18	7			25
Central government	16	3			19
State and local government	11	6			17
Public nonfinancial corporations	45	12			57
Other nonfinancial corporations	1785	124			1909
Other resident sectors	4875	89			4964
Nonresidents	1256	105			1361
Financial derivatives	**134**	**32**	**27**	**-8**	**185**
Central bank	46	9	5		60
Other depository corporations	32	12	8	-3	49
Other financial corporations	33	-7	7	-2	31
Central government					
State and local government					
Public nonfinancial corporations	4	5	3	-2	10
Other nonfinancial corporations	7		1		8
Other resident sectors					
Nonresidents	12	13	3	-1	27
Other accounts payable	**671**	**73**	**66**	**-67**	**743**
Trade credit and advances	**121**	**12**		**-3**	**130**
Central bank	23	2			25
Other depository corporations	6	4			10
Other financial corporations	14	-6			8
Central government	11	8			19
State and local government	7	-3			4
Public nonfinancial corporations	8	5		-1	12
Other nonfinancial corporations	37	-7		-2	28
Other resident sectors					
Nonresidents	15	9			24
Other	**550**	**61**	**66**	**-64**	**613**
Resident sectors	187	27	56	-64	206
Nonresidents	363	34	10		407
Shares and other equity	**11336**	**121**	**535**	**-46**	**11946**
Funds contributed by owners	5676			-24	5652
Retained earnings	4572	109		-12	4669
General and special reserves	432	12		-10	434
SDR allocations					
Valuation adjustment	656		535		1191
TOTAL LIABILITIES	**152002**	**7429**	**2232**	**-135**	**161528**

Memorandum Items					
Assets					
1. Central bank float (applicable to central bank only)					
2. Loans: Of which accrued interest	**275**	**5**			**280**
3. Loans: Of which interest arrears	**16**				**17**
Central bank					
Other depository corporations					
Other financial corporations					
Central government					
State and local government	**2**				**1**
Public nonfinancial corporations	**6**				**7**
Other nonfinancial corporations	**7**				**8**
Other resident sectors					
Nonresidents	**1**				**1**
4. Loans: Of which expected losses	**12**				**15**
Central bank					
Other depository corporations					
Other financial corporations					
Central government					
State and local government					
Public nonfinancial corporations	**4**				**5**
Other nonfinancial corporations	**5**				**6**
Other resident sectors	**2**				**3**
Nonresidents	**1**				**1**
Liabilities					
1. Loans: Of which accrued interest	**3**	**1**			**4**
2. Loans: Of which interest arrears	**1**				**2**
3. Shares and other equity: Market value, by holding sector	**2900**		**290**		**3190**
Central bank					
Other depository corporations	400		40		440
Other financial corporations	200	100	20		320
Central government					
State and local government					
Public nonfinancial corporations					
Other nonfinancial corporations	800	100	80		980
Other resident sectors	1000	-200	100		900
Nonresidents	500		50		550

MONETARY AND FINANCIAL

STATISTICS MANUAL

INDEX

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INDEX

Numbers in references refer to paragraphs