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*Note by the editor:*

*This chapter contains material on the transition from the financial account of the SNA to the system of monetary and financial statistics more generally. It depends in part on the sub-sectoring of the financial sector. It is proposed this be shown in chapter 4, as at present, but in order to understand the consequences for this chapter, draft text for the sub-sectoring is appended behind the chapter proper.*

## Chapter 26: Links to monetary and financial statistics

### A. Introduction

- 26.1. Chapter 11 describes the financial account in the context of the sequence of accounts of the System. It shows the flows for each of the listed financial assets and liabilities for each of the institutional sectors of the national economy and of the rest of the world. The transactions recorded may be either counterparts of transactions recorded in other accounts of the System or may show the exchange of financial assets between two sectors.
- 26.2. The financial account of the System is only one presentation of the acquisition and disposal of financial assets and liabilities. The framework of monetary and financial statistics is wider than this. The purpose of this chapter is to give an introduction to the sorts of analyses involved in financial and monetary statistics more generally and to show how the data in the System can be linked to these other presentations. Further detail on monetary and financial statistics can be found in [MFSM and the compilation guide o MFSM of the IMF and the ECB publication ??](#)
- 26.3. In general, monetary statistics are restricted to the assets and liabilities held by financial corporations while financial statistics consist of the assets and liabilities held by all sectors of the economy. Financial statistics include information on both stocks and flows and illustrate the interactions between the sectors. Before discussing the sort of tables that are commonly presented, it is necessary to look more closely at the rationale for the classification of financial assets and liabilities on the one hand and of the sub-sectors of the financial corporation sector on the other.

### B. The characteristics behind the classification of financial assets and liabilities

- 26.4. The classification of financial assets, shown in table 26.1, is based primarily on two kinds of criteria: the liquidity of the asset and the legal characteristics that describe the form of the underlying creditor/debtor relationship. The concept of liquidity embraces 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 in a systematic way. The 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.
- 26.5. In addition to the basic classification, there are other factors to be considered when looking at financial assets in a more general context than that of the SNA. These are described below.
- #### 1. Money
- 26.6. In the SNA, there is no concept or measure of money within the classification of financial assets. Money is very important as a financial variable, but the wide range of ways in which money is defined in

**Table 26.1: The classification of financial assets and liabilities**

<b>Monetary gold and special drawing rights (SDRs)</b> Monetary gold Special drawing rights
<b>Currency and deposits</b> Currency Transferable deposits Interbank positions Other transferable deposits Other deposits
<b>Debt securities *</b> Short-term Long-term
<b>Loans</b> Short-term Long-term
<b>Equity and investment fund shares **</b> Equity Listed shares Unlisted shares Other equity Investment fund shares/units* Money market fund shares/units Other investment fund shares/units
<b>Insurance, pension and standardised guarantee schemes</b> Non-life insurance technical provisions Life insurance and annuity entitlements Pension entitlements Provisions for calls under standardised guarantees
<b>Financial derivatives and employee stock options</b> Financial derivatives Options Forwards*** Employee stock options
<b>Other accounts receivable / payable</b> Trade credit and advances Claims by pension funds on sponsors Other
<i>Memorandum item: Direct foreign investment</i> Equity Loans Debt securities Trade Credit Other

\* *The listed/unlisted split is relevant for debt securities and investment funds also*

\*\* *Reinvested earnings can exist under any of these*

\*\*\* *Credit default swaps to cover for guarantees are included within this item.*

different countries precludes a simple definition within the SNA. For example, certain financial institutions may start to provide partial or full cheque facilities, or to issue bank or credit cards for deposit accounts that were previously not transferable. As a result of financial innovation, technological progress in computers and communications, and the force of competition, the distinction between transferable and non-transferable deposits and between the financial institutions that accept these deposits has become both blurred and unstable. For these reasons, it may be difficult and not very useful analytically, at least in some countries, to try to draw a clear distinction between transferable and non-transferable deposits. Therefore, the SNA does not build this distinction into the classification at the first level. When the financial market is such that a clear distinction can be drawn, the SNA recommends that the distinction should be made, although it comes in at the second level of the classification.

- 26.7. Given that the boundary between transferable and non-transferable deposits may not be stable in many countries, even measures of narrow money, which generally include currency and transferable deposits, may be difficult to define. In addition, few countries find that a stable relationship exists between narrowly defined money and other target variables. The composition of broad money and other monetary aggregates varies even more widely among countries and encompasses many classes of deposits and certain categories of short-term securities, particularly negotiable certificates of deposit. In addition, many countries compile a range of money measures, as well as broader liquidity measures, that may include liabilities of non-financial sectors. Even within a single country, innovation, deregulation or technical progress cause definitions of narrow or broad money to shift over time in response to changes in financial instruments and the organization of money markets. It follows that there can be no single concept of money supply implicit in the SNA. However, this does not preclude countries from organizing,

either as the primary classification scheme or as a supplementary scheme, their financial classification and accounts around a specific money measure or measures. Such an approach would be very useful in integrating national accounts and monetary analysis.

## **2. Maturity**

- 26.8. The classification de-emphasizes maturity as a basic classification criterion. Innovation in financial markets and more aggressive approaches to management of assets and liabilities have diminished the usefulness of a simple short-term/long-term distinction. Examples of such innovations are rollovers of short-term instruments, borrowing through short-term instruments under long-term facilities such as note issuance facilities (NIFs), adjustable rates on long-term assets that effectively make them a series of short-term arrangements, and early redemption of callable liabilities. In addition, when maturity analysis is important, such as for analysis of interest rates and asset yields, a breakdown of a range of maturities may be required. For these reasons, maturity distinction is recognized as a secondary classification criterion when relevant and national compilers should determine whether a maturity breakdown is necessary. Short-term is defined for the classification as one year or less, while long-term is defined as more than one year. In some circumstances, it may also be helpful to distinguish those long-term instruments with less than a year to go before maturity.

## **3. Functional categories**

- 26.9. The classification does not contain functional categories, such as direct investment, portfolio investment, and international reserves, that are basic classification criteria for the balance of payments capital account. In view of the importance of these categories, the classification does provide for a memorandum item for financial account transactions related to direct foreign investment relationships. This topic is

treated in greater detail in **annex II at the end of this manual.**

#### 4. Reserve assets

- 26.10. Reserve assets consist of those external assets that are readily available to and controlled by a country's authorities for direct financing of international payments imbalances, for indirect regulation of the magnitude of such imbalances through intervention in foreign exchange markets to affect their currency's exchange rate, and for other purposes. Reserve assets

comprise monetary gold, SDRs, reserve position in the IMF, foreign exchange assets (consisting of currency, deposits, and securities), and other claims, such as non-marketable claims arising from arrangements between central banks or governments. Reserves must be claims on non-residents but they may be denominated in the currency of the creditor or debtor. Only the central bank and central government can hold reserves. However, not all financial claims held by the authorities on non-residents are reserves, as reserves must be readily available, that is, must be highly liquid.

### C. The classification of financial institutions

- 26.11. As explained in **chapter 4**, there are a maximum of nine sub-sectors of the financial corporations sector proposed. These are shown in table 26.2.
- 26.12. It is unlikely that all nine sub-sectors would be distinguished at the same time but they represent a flexible set of building blocks for alternative aggregations to be compiled

according to different needs and possibilities. At the same time, further disaggregation within one of the sub-sectors may be desirable on occasion, for example to separate commercial banks from deposit-taking institutions or to separate public and private institutions within one or more categories

**Table 26.2: Sub-sectors of the financial corporations sector**

1. Central Bank
2. Deposit-taking corporations except the Central Bank
3. Money market funds (MMF)
4. Non-MMF investment funds
5. Other financial intermediaries except insurance corporations and pension funds (ICPF)
6. Financial auxiliaries
7. Captive financial institutions and money lenders
8. Insurance companies (IC)
9. Pension funds (PF)

- 26.13. One probable combination is to put together all institutions treated as being depository corporations. This would include the central bank and deposit-taking institutions. In countries where the instruments held by money market funds are exclusively short-term securities, these funds may also be included because they are considered to be part of broad money.
- 26.14. If money market funds are not combined with depository corporations, they may be

combined with investment funds. Wherever money market funds are grouped, the sum of depository corporations, investment funds and other financial intermediaries (that is groups 1 to 5) may be combined to give the total of all financial intermediaries. Similarly financial auxiliaries and other financial institutions may be combined as may insurance companies and pension funds.

#### **D. Financial assets and liabilities analysed by sector of debtor and creditor**

- 26.15. One common form of table is to show how the closing stock of a comprehensive set of assets for a particular sector may be analysed by seeing how the opening stock is changed by transactions in the asset, revaluation changes and other changes in the volume of assets to reach the closing stock. This is a particular application of the asset accounts described in [chapter 13](#).
- 26.16. Another popular form of table is that known as a flow of funds table. This may take one of several forms. The most common presentation, as described in the next section, consists of an articulation of flows (or stocks) showing for each instrument which sector or sub-sector is the creditor and which the debtor. Another variation is to combine the elements of the capital and financial accounts to examine all accumulation transactions and not just those concerning financial assets. The rationale for this is that the balancing item of the financial account should be exactly equal in magnitude but opposite in sign to that in the capital account. By including the items from the capital account, discrepancies in this account may be revealed by the exercise of completing the flow of funds table, instead of assuming the net borrowing/lending total is already determined.

assets and net incurrence of liabilities for all institutional sectors by type of financial asset. For each sector, the financial account shows the financial liabilities that the sector incurs to mobilize financial resources and the financial assets that the sector acquires. For each financial asset and liability, the financial account shows the overall change in the level of assets held by each sector and the change in the level of liabilities incurred by each sector. This information is very valuable in identifying the financial assets that net borrowing sectors use to finance their deficits and the assets that net lending sectors use to allocate their surpluses. Although the movement of financial flows can be mapped at this level of recording, the question of who is financing whom is not answered. In table 11.1, it is clear that non-financial corporations incurred liabilities (140) predominantly in the form of loans (71) and other equities and investment fund shares (69). Financial corporations incurred net liabilities (232) by using the full range of financial instruments. While the instrument by which the liabilities are incurred is clearly presented in this account, it is not possible to identify the sector that is providing the funds. Similarly, the net acquisition of financial assets can be tracked. Households acquired net financial assets of 181 spread across a range of assets, while financial corporations acquired net financial assets of 237, mostly in the form of loans and securities. However, it cannot be determined from this

##### **1. Flow of funds account**

- 26.17. The financial account, as presented in table 11.2, records the net acquisition of financial

level of recording to which sectors the financing is being provided.

- 26.18. For a full understanding of financial flows and the role they play in the economy, it is often important to know more detailed financial relationships between sectors and the financial assets by which these relationships are carried out. For example, it is often important for the government to know not just what types of liabilities it is using to finance its deficit but also which sectors (or the rest of the world) are providing the financing. For financial corporations (and those supervising them), it is important to know not only the composition of financial assets (loans and securities) that they have acquired but also which sectors these are claims upon. In addition, it is often necessary to analyse financial flows between sub-sectors within a sector (central government financial transactions with local governments or central bank financial transactions with deposit-taking institutions) and across sector boundaries (changes in deposit-taking institutions' claims on public non-financial corporations). Such detailed information is necessary to understand how financing is being carried out and how it is changing over time.
- 26.19. This more detailed approach is particularly important in spelling out the role that financial institutions in general and financial intermediaries in particular play in financial transactions. Financial corporations often have very small net lending or borrowing balances in comparison with their volume of transactions in both financial assets and liabilities. This reflects the basic role of financial intermediation of mobilizing financial resources through certain financial transactions and making these financial resources available to other sectors in forms suitable to these sectors through maturity/asset transformation. Thus, financial corporations play a critical role in directing financing flows from net lending sectors to net borrowing sectors and allow lenders to choose their asset instruments and borrowers their forms of indebtedness.
- 26.20. Tables 26.3a and 26.3b. facilitate the more detailed financial analysis just described. Table 26.3a records transactions in assets cross-classified by type of asset and by the debtor sector. The sectors transacting in assets are shown horizontally across the top of the table while the type of asset, disaggregated by sector of debtor, is arrayed vertically. Table 26.3b records transactions in liabilities cross-classified by type of liability and by the creditor sector. Since all financial assets other than monetary gold have an asset/liability symmetry, it would be conceptually possible to present all debtor/creditor relationships in a single table but this would require a table of very many cells, many of which would be blank. The tables, as presented, are merely examples of the type of detail that a country may wish to develop. They identify the full sectors for households, NPISHs, general government, and non-financial corporations. Sub-sectors are shown for the financial corporations to emphasize the special role these units play in financial transactions. For particular analysis or policy purposes, it may be useful to break down the other sectors into sub-sectors as well. In many circumstances, it will be necessary, for example, to identify financial transactions of central government or of non-financial public corporations. The sector breakdown under each type of financial asset is suggestive rather than prescriptive. For securities and loans, it is suggested to identify the debtor sectors (in table 26.3a) as follows: non-financial corporations, financial corporations, central government, state and local government, other resident sectors, and the rest of the world. Alternative breakdowns are illustrated for other types of assets.
- 26.21. These more detailed flow of funds tables can be used in at least three important areas related to economic policy. Data from these tables can be used in economic analysis and description of activity and trends in current periods. They can be used as an aid to projections in the context of the production of economic plans or to assess the effect of current economic policies, or changes in them, on the future path of the economy. They can also be used in projects



that undertake modelling of the economy to study economic behaviour as an aid to the formulation of economic policy. Such studies, of course, would be complementary to similar work on data from other accounts in the System. In particular it is useful, when using the flow of funds accounts to facilitate the operation of the financial system in the economy, to relate these transactions to the behaviour of the non-financial economy. The capital and financial accounts provide these links between the “real” economy and financial activity. Similarly, the flow of funds accounts facilitate study of the saving/investment process, by tracing the channels by which saving reaches ultimate borrowing, after passing through various financial institutions and assets.

26.22. In the policy area, a few examples will illustrate the usefulness of these tables. Common policy problems faced by many nations include questions such as: Will foreign exchange reserves be adequate? How will the central government’s deficit be financed? How will the major non-financial public corporations be financed and by whom? In each of these examples, the provision of answers to the questions requires an impact analysis on various sectors and types of transaction. The articulation of the accounts within the flow of funds facilitates the analysis and provides a framework in which to assess the answers.

26.23. In the area of financial projections, the use of time-series from relevant parts of the flow of funds tables enables an examination of the implications of parts of an economic plan, including testing for consistency of a number of separately prepared sector or

market forecasts, and the implications for future financial transactions of a particular set of assumptions about future events (e.g., interest rates, exchange rates, growth, sector surpluses/deficits).

26.24. Other policy areas where these projections and studies can be of assistance are in considering the long-term development of financial markets and institutions in the economy and assessments of the need for new types of assets to satisfy the potential demand of savers and investors requiring access to reliable liquid assets.

26.25. Tables 26.3a and 26.3b above should be interpreted as a general model, and substantial flexibility should be allowed in specific country circumstances. In many countries, the dimensions of the tables will be severely constrained by data availability. It should also be noted that these tables are extensions of the basic financial account and that adding the third dimension to the analysis can be done on a selective basis by identifying particular asset or sector (or sub-sector) relationships for which this level of detail would be useful.

## **2. Stocks of financial assets and liabilities analysed by sector of debtor and creditor**

26.26. Just as tables like those above can be compiled and very usefully analysed in terms of flows, so it is instructive to compile exactly similar tables in terms of the stocks of financial assets and liabilities. Where flows may be fairly volatile from one period to the next, the level of stocks is likely to be more stable and the degree of fluctuation from the stock level may convey particularly useful additional information.

**Table 26.3a: Format for detailed flow of funds table or stocks of financial assets analysed by debtor and creditor**

Financial assets of:	Financial corporations
<hr/>	
Type of claim and debtor	
<hr/>	
Monetary gold and SDRs	
Monetary gold	
SDRs	
Currency and deposits	
Currency	
National	
Residents	
Non-residents	
Foreign	
Residents	
Transferable deposits	
In national currency	
Residents	
Non-residents	
In foreign currency	
Residents	
Non-residents	
Other deposits	
In national currency	
Residents	
Non-residents	
In foreign currency	
Residents	
Non-residents	
<hr/>	
Debt securities	
Short-term	
Non-financial corporations	
Financial corporations	
Central government	
State and local government	
Other resident sectors	
The rest of the world	
Short-term	
Non-financial corporations	
Financial corporations	
Central government	
State and local government	
Other resident sectors	
The rest of the world	
<hr/>	
Loans	
Short-term	
Non-financial corporations	
Financial corporations	
Central government	
State and local government	
Other resident sectors	
The rest of the world	
Short-term	
Non-financial corporations	
Financial corporations	
Central government	
State and local government	
Other resident sectors	
The rest of the world	
<hr/>	
Equity	
Resident enterprises	
Listed	
Unlisted	
Other equity	
Non-resident enterprises	
Listed	
Unlisted	
<hr/>	
Insurance, pension and standardised guarantee schemes	
Non-life insurance technical provisions	
Life insurance and annuity entitlements	
Pensions entitlements	
Provisions for calls under standardised guarantees	
<hr/>	
Financial derivatives and employee stock options	
Financial derivatives	
Options	
Forwards	
Employee stock options	
<hr/>	
Other accounts receivable/payable	
Trade credit and advances	
Non-financial corporations	
Central government	
State and local government	
Other resident sectors	
The rest of the world	
Claims of pension funds on sponsors	
Other	
Resident sectors	
The rest of the world	
<hr/>	
<i>Memorandum item: Foreign direct investment</i>	
Equity	
Loans	
Debt securities	
Trade credit	
Other	
<hr/>	

**Table 26.3b: Format for detailed flow of funds table or stocks of financial liabilities analysed by debtor and creditor**

Financial liabilities of:	
	Financial corporations
<b>Type of claim and creditor</b>	
Currency and deposits	
Currency	
National	
Residents	
Non-residents	
Foreign	
Residents	
Transferable deposits	
In national currency	
Residents	
Non-residents	
In foreign currency	
Residents	
Non-residents	
Other deposits	
In national currency	
Residents	
Non-residents	
In foreign currency	
Residents	
Non-residents	
Debt securities	
Short-term	
Non-financial corporations	
Financial corporations	
Central government	
State and local government	
Other resident sectors	
The rest of the world	
Short-term	
Non-financial corporations	
Financial corporations	
Central government	
State and local government	
Other resident sectors	
The rest of the world	
Loans	
Short-term	
Non-financial corporations	
Financial corporations	
Central government	
State and local government	
Other resident sectors	
The rest of the world	
Short-term	
Non-financial corporations	
Financial corporations	
Central government	
State and local government	
Other resident sectors	
The rest of the world	
Equity	
Resident enterprises	
Listed	
Unlisted	
Other equity	
Non-resident enterprises	
Listed	
Unlisted	
Insurance, pension and standardised guarantee schemes	
Non-life insurance technical provisions	
Life insurance and annuity entitlements	
Pensions entitlements	
Provisions for calls under standardised guarantees	
Financial derivatives and employee stock options	
Financial derivatives	
Options	
Forwards	
Employee stock options	
Other accounts receivable/payable	
Trade credit and advances	
Non-financial corporations	
Central government	
State and local government	
Other resident sectors	
The rest of the world	
Claims of pension funds on sponsors	
Other	
Resident sectors	
The rest of the world	
Memorandum item: Foreign direct investment	
Equity	
Loans	
Debt securities	
Trade credit	
Other	

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