



10

The Financial Account

Introduction

10.1 The financial account records transactions that involve financial assets and liabilities and that take place between residents and nonresidents. This chapter identifies the data sources that could be used for compiling estimates of financial account transactions,¹ and discusses compilation issues, as well as the various techniques that could be employed when source data are unavailable or deficient.²

10.2 The financial account is subdivided according to functional and instrument categories. This chapter is structured according to the five functional categories of investment in the international accounts: direct investment, portfolio investment, financial derivatives (other than reserves) and employee stock options, other investment, and reserve assets. These functional categories are built on financial instruments classifications, but with an additional dimension that takes into account some aspects of the relationship between the parties and the motivation for investment.³

Direct Investment⁴

Concept and Coverage

10.3 Direct investment (DI) is a category of cross border investment associated with a resident in one economy having control or a significant degree of influence on the management of a company that is resident in another economy. In addition to funds, direct investors may supply additional contributions such as expertise, innovation, technology, management, and marketing. As well as the equity that gives rise to control or influence, DI also includes investment

associated with that relationship, including investment in indirectly influenced or controlled companies, investment in fellow enterprises, debt, and reverse investment. Appendix 4 of this *Guide* provides guidance on the compilation of DI statistics and discusses the treatment of fellow enterprises, identification of ultimate controlling parents (UCP), and issues on statistical units. A model form for collecting data from companies is provided in Appendix 8. Guidance on production sharing arrangements (PSA) that have become an important channel for investment flows, particularly in extractive industries, is provided in Box 10.1.

10.4 In some cases companies operate as a seamless operation over more than one economic territory, typically for cross border activities such as airlines, shipping lines, hydroelectric schemes on border rivers, pipelines, bridges, tunnels, and under-sea cables. If possible, separate branches should be identified for each economy (see *BPM6*, paragraphs 4.26–4.33). If that is not possible because the operation is so seamless that separate accounts cannot be developed, it is necessary to prorate the total operations of the company into the individual economic territories. The factor used for prorating should be based on available information that reflects the actual operations. Further guidance is given in paragraphs 8.68–8.70.

10.5 The same concept of DI is used in the OECD *Benchmark Definition of Foreign Direct Investment (BD4)*.

Motivation for Direct Investment

10.6 The benefits that direct investors expect to derive from having a voice in management are different from those derived by portfolio investors who cannot exercise significant influence over the companies in which they invest. From the viewpoint of direct investors, direct investment enterprises (DIENT) often represent units in multinational operations. The overall profitability of these depends on advantages gained by deploying resources available to each unit in the group in ways that best enhance group synergy.

¹See also Chapter 9 of the *Guide*.

²This chapter discusses the derivation of transactions from positions. The *Quarterly International Investment Position Statistics: Data Sources and Compilation Techniques (IIP Guide)* identifies techniques for deriving quarterly positions from quarterly transactions.

³See the *BPM6*, Chapter 6, Table 6.1, for links between financial assets classification and functional categories.

⁴See Appendix 4.

Box 10.1 Production Sharing Arrangements and Direct Investment

Production sharing arrangements (PSA) are arrangements between a government (acting on behalf of the state as the owner of the mineral resources) and investors that govern exploration and production rights. These contracts are intended to provide a predictable legal and tax regime and are internationally recognized in law. While PSA models vary across economies, they usually include the following elements: (1) the investor or operator pays royalties to the government; (2) the investors receive production revenues to cover expenses; (3) “profit production” is split between the government, the operator, and investors on the basis of a negotiated formula that takes into account the characteristics of the project (usually a sliding scale is included to deal with the impact of changes in the world price of the commodity); and (4) the operator and/or investors pay taxes on their portion of profits on production.¹

In some economies, PSAs are not incorporated as legal companies in the host economy and use special accounting principles, and the principal parties to the contract have limited statistical reporting obligations. Implementation of the arrangements may be overseen by a government agency that manages the government’s interests in the PSAs; but it, for statistical purposes, may not be the operating company. Further, in some economies, PSA information is confidential. Provided ahead are broad guidelines on adapting the *BPM6*-based guidelines for determining the nature of cross border transactions and positions, in the context of PSAs.

As a starting point, the compiler should first identify the operating company, and then establish the existence of a direct investment relationship between the operating company and its foreign owner(s), assuming the requirements for direct investment are met (production is expected to be undertaken on a significant scale, and so forth). As noted earlier, the government agency that manages the state’s interests in the PSAs (which may involve different consortiums across different locations) may not be the operating company. The compiler would then need to create an artificial production unit for each PSA; this unit may be identified as a branch when a nonresident unit has substantial operations over a significant period in the host territory, but no separate legal company is established for those operations. Each branch is a direct investment enterprise (DIENT).

In the case where the contracting parties to a PSA comprise a single foreign investor and the government, the former is the direct investor. However, when there are a number of foreign investors (as part of a consortium), determining the nature of the investment relationships is likely to be a challenge in the absence of full disclosure on the terms and conditions of PSAs. PSAs may identify the rights of contracting parties with regard to participating interests that are usually linked to shares in profit production (or profits). These participating interests, from a statistical viewpoint, do not provide the criteria for determining a direct investment relationship. The investor that has clearly assigned responsibilities for operating the production unit (the branch) should be considered as the direct investor for statistical purposes.

PSA contracts may also define arrangements with regard to the lease of resources, with the nonresident investors making payment to the government for the acquisition of mineral rights (for exploration and extraction) over a finite period. For statistical purposes, the foreign contractors (consortium) should be regarded as having acquired a lease that amounts to a permission to use natural resources that are not recorded as outright ownership of these resources. Except for the direct investor’s share, this acquisition is recorded as a debit entry in the capital account under *acquisitions/disposals of nonproduced, nonfinancial assets*. The direct investor’s share is recorded in the financial account, under direct investment, equity and investment fund shares. The foreign parties in the consortium (nonresident) in turn make these mineral rights available to the operating company, and are paid a rent to be recorded as a credit entry in the recipient’s primary income account (*other primary income, rent*).

However, cases may also arise where a government sells the resource, evidenced by the government ceding all rights over it to another unit (such as an outright sale, or under a very long-term lease during which period the government has ceded all rights to the resource and the resource is expected to be fully extracted from land). With limited exceptions (see *BPM6*, paragraph 4.5(e)), mineral resources can be owned only by resident units; and accordingly notional resident units would need to be established, with the foreign parties becoming direct investors in a DIENT that is distinct from the operating company. In this case, the payments made for the acquisition of the resources are recorded in the financial account, under direct investment, equity, and investment fund shares. Subsequent transactions between these DIENTs and/or between any of the DIENTs and the government are resident-resident transactions, and are not included in the balance of payments.

Regarding the flows between the direct investor and the DIENT, identifying how the production sharing agreement is organized is a starting point for identifying potential transactions. Resident parties to the contract are the government, or agency acting on its behalf. They would obtain their share of the mineral revenue (or share of production), representing both their cost recovery and income on their investments. Royalties may also be paid to the government. These

Box 10.1 Production Sharing Arrangements and Direct Investment (*concluded*)

are resident-resident transactions. The direct investor would receive payments that represent a recovery of its capital investment (this would reduce direct investment liabilities in the reporting economy), and direct investment income, sometimes termed “cost oil” and “profit oil” respectively in PSAs.

Additionally, the foreign consortium may also make financial resources available to the operating company, and would also be paid income corresponding to the requisite financial instrument (e.g., loans, trade credit and advances, other accounts payable). The consortium may also provide services and operational leases to the operating company. These should be considered as balance of payments transactions, and classified in line with the *BPM6* guidelines for these components.

Given the challenges of data collection, the compiler could develop alternative solutions to estimating the balance of payments transactions, including the construction of an income statement for the DIENT using available information such as export revenue, royalties and taxes paid to the government, and industry benchmarks for intermediate consumption and profit margins.² Deriving external transactions and positions remain a challenge, not least because comprehensive income statements and balance sheets for the operating companies generally do not exist. Further, there is generally a short repayment cycle for trade credits and advances made to the operating company; these are typically settled through transactions executed outside the domestic banking system, usually by the consortiums (which tend to perform the role of marketing agents) recouping outstanding debt obligations from the export proceeds.

Source: IMF staff.

¹This box aims to provide guidance on identifying direct investment transactions and positions in the context of typical PSAs, and is not intended to cover broader types of cross border public-private partnerships. For a discussion of public-private partnerships, see *Public Sector Debt Statistics: Guide for Compilers and Users* (2011), paragraphs 4.119 through 4.126, and the *Government Finance Statistics Manual GFSM 2014*, Appendix 4, Section C. Leases, licenses, permits, and other contracts are discussed in *GFSM 2014*, Appendix 4, Section B.

²An example of the statistical modeling of the PSA financial mechanism is the work of the Central Bank of Russia. See *Production Sharing Agreements: Paper by the Central Bank of Russia Presented to the Twenty-Fourth Meeting of the IMF Committee on Balance of Payments Statistics*, Moscow, Russia (October 24–26, 2011) available at www.imf.org/external/pubs/ft/bop/2011/11-17.pdf.

For example, direct investors may be able to obtain access to resources or markets that would otherwise be unavailable to them. Direct investors may also be able to increase company profitability and value through management skills and other expertise. Therefore, direct investors are in a position to derive benefits in addition to the income that would, without their participation, accrue on invested capital. In contrast, portfolio investors are primarily concerned about return on capital and the likelihood of appreciation. Portfolio investors generally evaluate separately the prospects of each independent unit in which they might invest and often shift their capital with changes in these prospects.

Defining Direct Investment Relationships

10.7 A direct investor is a company resident in one economy that has acquired, either directly or indirectly, at least 10 percent of the voting power of a company resident in another economy. The direct

investor may be an individual; an incorporated or unincorporated private or public company; an associated group of individuals or companies; a government or government agency; or another organization that owns a DIENT in an economy other than the one in which the direct investor resides. A DIENT is a company resident in one economy subject to control or a significant degree of influence by a direct investor. The *BPM6* identifies control and significant influence in two dimensions: (1) immediate direct investment relationships and (2) indirect direct investment through chains of control and significant influence. Immediate direct investment relationships arise when a direct investor directly owns equity that entitles it to 10 percent or more of the voting power in the DIENT (for an incorporated company); or the equivalent (for an unincorporated company). DIENTs comprise unincorporated and incorporated companies that are more than 50 percent owned, and therefore controlled, by the direct investor (subsidiaries of the direct investor),

and companies that are between 10 and 50 percent owned, and therefore significantly influenced, by the direct investor (associates).

10.8 The direct investment relationship extends indirectly through chains of ownership to the DIENT's subsidiaries, subsidiaries and associates of subsidiaries, associates and subsidiaries of associates. Associates directly or indirectly owned by another associate are excluded. It also includes DIENTs in different economies that have a common direct investor but are not in an immediate DI relationship with each other. These are called fellow enterprises.

10.9 The Framework for Direct Investment Relationships (FDIR) is a generalized methodology for identifying and determining the extent and type of DI relationships. In other words, the FDIR allows the compiler to determine the population of direct investors and DIENTs to be included in DI statistics for any company. For a compiling economy, the FDIR identifies all companies related to a particular company whether they are immediate or indirect direct investors, DIENTs, or both. For example, within a multinational group, it is possible that a DIENT itself owns 10 percent or more of the voting power of another nonresident company, in which case the DIENT is itself a direct investor in a further DIENT. The question is therefore whether there is a DI relationship between the further company and the original company.

10.10 There is extensive discussion of the FDIR in the *BD4*, Chapter 3 and Annex 4. There is also discussion in Chapter 6 of the *BPM6*.

Fellow Enterprises

10.11 Fellow enterprises are companies resident in different economies, in a DI relationship with each other (i.e., they have a common immediate or indirect direct investor), but neither company is a direct investor in the other.

10.12 It is not unusual for there to be financial positions and transactions between fellow enterprises, particularly where one of the fellows provides financial services to the broader DI group. Positions between fellows are DI positions (usually debt but noting the usual exclusion from DI for debt positions between selected affiliated financial intermediaries; see *BPM6*, paragraph 6.28). If an equity position between com-

panies provides voting power of 10 percent or more, then one of the companies is a direct investor in the other and they should not be considered fellows.

Selected Affiliated Financial Intermediaries

10.13 The positions of intercompany assets and liabilities between two selected types of affiliated financial intermediaries, including special purpose entities (SPE), principally engaged in financial intermediation, that are recorded under DI are limited to equity and investment fund shares, including reinvestment of earnings.⁵ For this purpose, financial intermediaries engaged in providing financial intermediation services comprise those corporations and quasi-corporations that are grouped in the following sub-sectors: (1) deposit-taking corporations (both central bank and deposit-taking corporations other than the central bank); (2) investment funds; and (3) other financial intermediaries, except insurance corporations and pension funds. Debt between these financial intermediaries is not classified as DI because it is not considered to be so strongly connected to the direct investment relationship.

10.14 International and regional financial institutions (such as the European Bank for Reconstruction and Development) invest in companies in different sectors of an economy. In cases where these institutions invest in financial intermediaries, the debt flows between the two units are excluded from DI. DI debt between international and regional financial institutions and companies not involved in financial intermediation is included in DI, assuming the criteria for defining direct investment relationships is met.

Investment Funds

10.15 Collective (or pooled) investment funds have grown in importance in global stock markets, and are promoted with a wide range of investment aims targeting either specific geographic regions (e.g., emerging markets) or specified industry sectors (e.g., technology). These funds issue shares that are termed investment fund shares if a corporate structure is used, or units if a trust structure is used. The key features of these investments funds are discussed in the *BPM6*, under money market funds (*BPM6*,

⁵Both affiliated parties must be one of the selected types of financial corporations, but they need not be the same type.

paragraph 4.73) and nonmoney market investment funds (*BPM6*, paragraph 4.74). If these shares or units are held by direct investors, the associated transactions and positions are recorded under DI equity.⁶

10.16 These funds may also operate through institutional units described as SPEs or special purpose vehicles.⁷ SPEs are often resident in a territory other than the territory of their owner, may have few, if any, employees, and may have little or no physical presence. The *BPM6* notes that these entities are always treated as separate institutional units if they are resident in a different territory to that of their owners (*BPM6*, paragraph 4.51).

Valuation of Direct Investment Positions and Transactions⁸

10.17 The *BPM6* recommends that market values be used to value DI financial flows, income transactions, and positions. This recommendation is consistent with valuation principles recommended for recording other entries in the balance of payments and the international investment position (IIP). The recommendation on valuation of DI is made for two primary reasons. First, if inconsistent valuation bases were used, it would be very difficult to make comparisons between DI and other financial investment as shown in the balance of payments and the IIP. Second, market valuation provides the most meaningful measure of the economic value of resources available to, or transferred between, economies.

10.18 When using position data to derive DI transactions, the compiler should pay particular attention to the fact that changes in position would reflect not only transactions but also revaluations (exchange rate and other price changes) and other changes in volume. An example of deriving transactions using data on positions and other price changes is presented in Box 10.2.

10.19 More details on the treatment of statistical units (e.g., company and local enterprise group) and other units, such as notional units, companies established abroad for fiscal purposes, and SPEs, are presented in Appendix 4 of this *Guide*. The appendix also describes possible approaches for valuing direct investment positions.

Data Sources

10.20 The use of surveys of businesses for collecting data on foreign assets and liabilities is discussed in Chapter 3. Direct investment-specific surveys provide the best opportunity for collecting data from respondents, in line with the international statistical standards, as they allow for the concept of DI and the treatment of particular transactions to be explained to respondents. These surveys also allow for the collection of other DI-related information that can be used for analytical purposes and for quality control (see model form 18 in Appendix 8). However, specialized DI surveys incur costs, and may require close inter-agency coordination and cooperation across a number of agencies, including the agency compiling the international accounts, the national statistics office, and investment promotion or regulatory agencies. The main principles for organizing and conducting a survey are presented in Chapter 2.

Box 10.2 Deriving Transactions Using Data on Positions and Other Price Changes

The following illustrative example is based on securities issued in U.S. dollars, with opening and closing positions as follows: opening position = US\$1,200, and closing position = US\$1,700.

The market value of the security (per unit) is as follows:

Opening position:	US\$0.75
Closing position:	US\$0.50
Average price	US\$0.60

Step 1

Revalue the opening period position using the end period market valuation:

$$(1,200/0.75) * 0.5 = 800$$

Step 2

Calculate the difference between end period position and revalued opening period position:

$$1,700 - 800 = 900$$

Step 3

Revalue transactions at average transactions value:

$$(900/0.5) * 0.6 = 1080$$

Other price changes are calculated as the difference between the change in positions and the revalued transactions, as follows: $(1,700 - 1,200) - 1080 = -580$

⁶The use of pooled assets for reserve assets management is discussed in the *BPM6*, Chapter 6.

⁷See the *BPM6*, paragraphs 4.50–4.51, for the characteristics of SPEs.

⁸See the *BPM6*, Chapter 3, Section E.

10.21 For economies with a liberalized financial account, a key challenge in the collection of DI data is the coverage of outward DI in business surveys. There are difficulties in identifying direct investors and in developing an adequate population frame of resident units investing abroad. Exploratory surveys are usually a starting point for developing a survey frame for outward DI, although in some cases, the inward DI survey targeting resident DIENTs is used as a starting point. However, resident units other than DIENTs may have substantial DI abroad; these may include both private and public companies, and government agencies, including those that manage or administer sovereign wealth funds. The compiler would need to gather the information from a broad range of sources (including media reports, industry journals, commercial databases, partner economy databases, and disclosures by listed companies), as a basis for developing an adequate population frame for conducting surveys on outward DI. For economies that undertake exploratory balance of payments surveys, this may be a less significant issue.

10.22 Some economies use the international transactions reporting system (ITRS) as a source for information on DI flows.⁹ The advantages are that a large amount of information on transactions is readily available from banking records, and its use avoids the expense of developing alternative collections. However, the ITRS measures only cash transactions. DI also involves noncash transactions, such as reinvested earnings,¹⁰ equity provided in the form of machinery and so forth, and intercompany debt and equity transactions that bypass resident banks. Generalized foreign exchange/banking report forms are also typically unsuitable for explaining the concept of DI, resulting in problems in classification and limited scope of the collected data. The ITRS may not take account of DI transactions in domestic currency. When not used as a primary source, the ITRS can provide sample frame information, allowing for the collection of data through other sources, such as business surveys. For example,

an ITRS can provide indications of new or extinct DIENTs, as well as the volume of foreign transactions. Such information is useful for creating/updating business registers and determining sampling frames.

10.23 National agencies that provide approvals for and/or regulate inward DI activities provide an information source that is readily available. However, the serviceability of such data for compiling the international accounts is usually limited. Approved investments may not materialize, so the compiler would need to find a tracking method as a basis for determining actual investment inflows (including monitoring financial press and industry journals). Approvals data may also not cover nonequity transactions, such as lending, and information on income and withdrawals of investment may not be available. The compiler should also be aware of the industry coverage of the data collected from any single investment promotion agency, as in some economies the responsibility for approving investments in key sectors (e.g., petroleum, telecommunications, and finance) may lie not with the general investment promotion agency but with industry-specific approval/regulatory agencies. For example, central banks are usually a source of data on DI in the banking sector. In this case, the compiler should ensure that data from all relevant agencies are collected. The approval process may also relate to investments above thresholds, and would require an estimation of DI transactions that fall below the thresholds. One approach is to conduct periodic surveys of DIENTs not captured in administrative-based data sources.

10.24 As noted in the *IIP Guide*, data on debt instruments related to DI could be sourced from a register of external loans, used in some economies to track private sector external debt. These registers are usually maintained by the debt management office or the central bank.

10.25 DI companies' income and balance sheet statements may also provide useful data for deriving/estimating DI transactions. Income statements provide transactions data on revenue and expenses, but may not provide a residency-based split (foreign/domestic) to allow balance of payments transactions to be readily identified. The information may be augmented with data from more detailed company annual reports, as well as the compiler's knowledge of

⁹In some central banks, the ITRS evolved as data reporting system that was previously built on an exchange control system; as economies dismantled exchange control, the ITRS has become a less comprehensive source for balance of payments statistics.

¹⁰Chapter 11 of the *BPM6* provides a numerical example of calculation of reinvested earnings of a direct investment enterprise (Box 11.5). See also Appendix 4.

the company's operations. However, for multinational companies, data may be presented on a consolidated basis, covering a group of companies located in different economies; this limits the utility of the data for compiling the international accounts. The use of indirect estimation methods may be required to apportion the data. For example, data on revenue or employment by economy, if available, may be used in apportioning consolidated data.

10.26 A growing number of economies are compiling and disseminating international investment statistics by counterpart economy. In 2010, the IMF initiated the Coordinated Direct Investment Survey (CDIS), a worldwide statistical data collection effort designed to improve the availability and quality of data on foreign direct investment, both overall and by immediate counterpart economy. The first CDIS was conducted as of end-year 2009, and it is being conducted annually thereafter. The concepts, coverage, valuation, and classification of data collected in the CDIS are consistent with the *BPM6* and *BD4*.¹¹

10.27 The OECD database on International Direct Investment Statistics presents statistics on DI to and from OECD economies. Data are broken down by geographical zone and industrial sector for DI flows and positions.

10.28 In some cases, indirect estimation techniques are also employed when collection systems are nonexistent or deficient. The estimation techniques draw on a variety of source data, including imports statistics, tax data, and building permits. The compiler may use trade data on the imports of DIENTs to estimate the level of DI inflows, or may use the information to supplement information obtained from other sources, such as the ITRS.

10.29 In some economies, tax data on profits are used in tandem with related information and industry-specific assumptions, to create an income and balance sheet profile of DIENTs, as a basis for estimating DI transactions and positions. To address coverage issues related to threshold based–data collections, tax

data may also be used to estimate the transactions of small DIENTs, by assuming industry-specific ratios on profitability.

10.30 DI flows related to construction activity may also be estimated on the basis of building permits, but the compiler needs to be cautious of the limitations of approvals data.

10.31 Financial information disclosed by direct investors, including information disclosed to fulfill the regulatory requirements of securities exchange commissions, are also useful for identifying flows, particularly for new investment projects.

Portfolio Investment Concept and Coverage

10.32 Portfolio investment is defined as cross border transactions and positions involving debt or equity securities, other than those included in DI or reserve assets (*BPM6*, paragraph 6.54). Equity securities are instruments that acknowledge a claim on the residual value of a company. Debt securities are negotiable instruments serving as evidence of debt. They include bills, bonds, negotiable certificates of deposits, commercial paper, debentures, asset-backed securities, and similar instruments normally traded in the financial markets.

10.33 “Collections on International Activity Associated with Securities” in Chapter 3 provides detailed information on collection of data on international activity with securities. It covers issues on identifying security issuers and owners, and the transactor. The chapter also describes in detail possible data sources for collecting data on securities and how to overcome possible problems.

Valuation of Portfolio Investment Positions and Transactions¹²

10.34 Financial transactions in securities generally fall into four categories: (1) issues, (2) redemptions, (3) purchases, and (4) sales. These transactions are generally recordable and can be collected using a form for international securities (see Appendix 8, model form 19, International Securities). For securities issued by

¹¹See Chapter 7 for a discussion on adjustments to the CDIS data needed for compiling the balance of payments and IIP accounts. Table 7.1 in Appendix 7 explains how DI data collected on the directional principle basis are mapped to the assets/liabilities presentation.

¹²The valuation of positions of financial assets and liabilities is discussed the *BPM6*, Chapter 3.

Box 10.3 General Methods for Estimating Fair Value of Portfolio Investment Debt

When market-price data are unavailable for portfolio investment debt instruments, there are two general methods for estimating fair value (which is an approximation of the market value of such instruments):

- Discounting future cash flows to the present value using a market rate of interest
- Using market prices of financial assets and liabilities that are similar

The first general method is to value financial assets and liabilities by basing market value on the present, or time-discounted, value of future cash flows. This is a well-established approach to valuation in both theory and practice. It calculates the market value of a financial asset or liability as the sum of the present values of all future cash flows. Market value is given by the following equation:

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

where $(\text{Cash flow})_t$ 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 interest rate that is applied to discount the future cash flow in period t .

The method is relatively easy to apply in valuing any financial asset or liability if the future cash flows are known with certainty or can be estimated, and if a market interest rate (or series of market interest rates) is observable.

Directly basing market value on the market price of a similar financial instrument is a well-used technique when a market price is not directly observable. For example, the market price of a bond with five-year remaining maturity might be given 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 market value to account for differences in liquidity and/or risk level between the instruments.

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 (e.g., type of instrument, issuing sector, maturity, credit rating, etc.) of the traded instruments can be used in estimating the market value of the instrument.

residents and owned by nonresidents, the corresponding transactions impact the net incurrence of liabilities side of the financial account; for securities issued by nonresidents and owned by residents, the corresponding transactions impact the net acquisitions of assets side of the financial account. The following conventions apply to both Part A (Securities Issued in Newland) and Part B (Securities Issued Abroad) of form 19.

10.35 Positions in financial assets and liabilities should, in general, be valued as if they were acquired in market transactions on the balance sheet 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.¹³ For assets and liabilities that are not traded in financial markets or that are traded only infrequently, it is necessary to estimate fair values that, in effect,

approximate market prices. Two general methods for estimating fair values of portfolio investment debt are used: (1) discounting future cash flows to the present value using a market rate of interest; and (2) using market prices of financial assets and liabilities that are similar. These methods are discussed in Box 10.3. Portfolio investment equity that is untraded may be valued using the same methods that are used for valuing unlisted direct investment shares—see the *BPM6*, paragraphs 7.16–7.17 and 7.29.

10.36 When debt securities, such as bonds (including deep-discount and zero-coupon bonds), bills, and similar short-term securities are issued at a discount (or at a premium), the difference between the issue price and its face or redemption value at maturity is treated, on an accrual basis, as interest (negative interest) over the life of the instrument. When issued at a discount, the interest costs that accrue each period are recorded as being reinvested in the debt security, increasing the principal amount outstanding. This approach can be described as the capitalization of interest; it is not a holding gain for the security owner. When issued at

¹³If 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.

a premium, the amount accruing each period reduces the value of the debt security. Chapter 11 of the *BPM6* presents numerical examples of calculation of interest accrual on zero-coupon bonds (Box 11.2) and on index-linked bonds (Boxes 11.3 and 11.4). The corresponding entry to the interest accrued is an increase in debt securities in the financial account.

10.37 When persons and other entities change their economy of residence, their existing financial assets are added to or removed from the IIP through a reclassification, not by imputing transactions in the balance of payments. The change in residence does not involve a transaction between two entities, but a change in the status of a single company or person. The treatment of change in residency applies to all the financial assets and liabilities, not just those that are shifted to the new economy of residence. The reclassification in the IIP is done through the *Other Changes in Financial Assets and Liabilities Account, other changes in volume*, under the applicable functional and instrument category (see “Other Changes in Financial Assets and Liabilities Account” in Chapter 9).

10.38 For equity shares that are listed in organized markets or are readily tradable, the value of outstanding positions should be based on observable market prices. As noted, the value of total shareholder equity not quoted on stock exchanges or not traded regularly may be estimated using any of the methods listed and described in the *BPM6*, paragraphs 7.16–7.19.

Data Sources

10.39 Data on portfolio investment draw mainly from official sources and surveys, usually depending on the degree of regulation and the scope of cross border activities. The main sources are as follows.

10.40 Monetary and financial statistics (MFS) provide position data on the financial assets and liabilities of depository corporations (central banks and other depository corporations (ODC)). However, as discussed in Appendix 6, “Linkages of the International Accounts with Monetary and Financial Statistics,” there are limitations in using monetary statistics to compile IIP.¹⁴ Particularly, limitations are in the following:

- Valuation—For example, in MFS liabilities in the form of shares and other equity are measured at book value while in the *BPM6* shares assets and liabilities should be valued at market value.
- Coverage—For example, money market funds in MFS are classified under other depository corporations while in the *BPM6* they are included under other financial corporations.
- Functional categories—For example, MFS do not use functional categories to classify financial assets and liabilities, which makes it challenging to compile direct investment position in IIP for other financial corporations based on the MFS.
- Maturity breakdown—For example, MFS contain a maturity breakdown only for central bank liabilities with nonresidents, but not for financial assets of the central bank, or for assets and liabilities of other deposit-taking corporations and other financial corporations.

10.41 When using MFS position data to derive transactions, the compiler must be aware of the recording basis of the source data, and should seek to exclude changes in position explained by other changes in volume, and by revaluation (exchange rate changes and other price changes) in order to compile a reliable estimate of transactions based on changes in position (see Box 10.2).

10.42 Transactions may also be sourced from the ITRS, but coverage should include the transactions on ODCs’ own account as well as those conducted on behalf of their clients.

10.43 Security-by security (SBS) databases have also become increasingly widespread, and are used in a number of economies as the basis for recording/estimating balance of payments and IIP entries. A SBS database is a microdatabase that stores statistics at an individual equity and/or debt security level; it is also known as a *securities reference database*. This information is classified according to a range of attributes or characteristics that may vary depending on the purpose of the database. The main variables stored in the SBS databases are: (1) the International Securities Identification Number (ISIN), or any other unique and unequivocal identification number or key); (2) issuer-related attributes, like name of the issuer, residence of the issuer, institutional sector and subsector; (3) instrument related attributes, like issue date, type of

¹⁴“Linkages of the International Accounts with Monetary and Financial Statistics” in Appendix 6 also discusses how to overcome the limitations.

security, redemption date, currency of denomination, issue price, redemption price, outstanding amount or market capitalization; (4) income-related attributes, like coupon payments and dates; and (5) price-related attributes, like price value and price date (see Diagram A3.1 of the *Handbook on Securities Statistics*, Part 1).

10.44 The SBS reference database generally covers various categories of financial instruments, such as debt securities, equity securities, investment fund shares or units, and financial derivatives. It can be linked to information on securities holdings to create a securities holdings database. For that purpose, holdings information provided by respondents on a security-by-security level is linked (e.g., through the ISIN code) at the level of individual securities to the data stored in the SBS reference database.¹⁵

10.45 On the holders' side, in addition to information to establish the link with the reference SBS database, the database would have information on the holder's residency and institutional sector/subsector and on amount of securities held. In most cases, data on holders are collected from custodians, as well as centralized securities depositories, on an SBS basis.

10.46 In some economies, data on portfolio investment are collected through surveys. The surveys target the holders of the securities (end-investor approach) and/or the custodians (custodian approach). In choosing one approach, or a combination of the two, the compiler should seek to determine the best coverage while minimizing overlap. In this regard, the compiler may wish to bear in mind the sector dimensions, not only for analytical purposes but also to avoid double counting.¹⁶

10.47 Information on transactions conducted through an economy's stock exchange may also be collected. However, in some cases the data may be based on the nationality of the transactors, and adjustments may be necessary to ensure the *BPM6*-based residency criterion is observed. Securities issued in the domestic market and purchased by nonresidents on the secondary market may also present similar chal-

lenges, and adjustments to data collected from the stock exchange may be necessary to ensure the *BPM6*-based residency criterion is observed. For securities issued by the government—usually through its depository institution (central bank)—information on the residency of the purchaser may be available from the central bank, or through custodians/agents acting on behalf of the issuer.

10.48 For partner economy data, the IMF's Coordinated Portfolio Investment Survey (CPIS) is a main source (see Chapter 7). The CPIS Table 8 series on "Derived Portfolio Investment Liabilities by Economy of Nonresident Holder" can be used as a data source for this information. These derived data are based on data reported by economies participating in the CPIS. Therefore, in most cases, the derived data would be a lower limit of the total portfolio liabilities of the compiling economy. If, for example, neighboring economies that do not participate in the CPIS are known to hold a significant amount of the compiling economy's portfolio investment liabilities, then the CPIS-derived data would understate the total.

10.49 In general, it is usually not possible to connect a specific buyer to a specific seller of shares traded on stock exchanges. Paragraph 4.154 of the *BPM6* states: "For balance of payments transactions, the partner attribution could be made on the basis of the parties to the transaction (namely, the buyer and the seller, the so-called transactor approach), or for assets owned, the residence of the issuer (the so-called debtor-creditor approach). In these cases, it is acceptable to adopt a convention for partner attribution of assets owned based on the residence of either the counterparty to the transaction or the issuer. On practical grounds, the information available does not always permit identification of the two parties to the transaction."

10.50 Thus, when a specific buyer cannot be connected to a specific seller, the so-called debtor-creditor approach is a practical approach for recording balance of payments transactions in securities. Under this approach, when a resident purchases (or sells) a security that was issued by a resident, it is regarded as a domestic transaction regardless of the residence of the actual seller (or buyer) of the security, because the latter is unknown, and when a resident purchases (or sells) a security that was issued by a nonresident, it

¹⁵In technical terms this does not necessarily mean two physically distinct databases, but rather components of a single database.

¹⁶See *Coordinated Portfolio Investment Survey Guide*, 2nd edition (2002), Chapter 4, for a discussion of the methods for collecting position data.

is regarded as an international transaction regardless of the residence of the actual seller (or buyer) of the security, again because the latter is unknown.

10.51 Further are presented some cases of recording of transactions in securities in balance of payments under debtor-creditor approach:

- *Resident investor sales shares to nonresidents that were listed on the stock exchange in the resident economy:* the resident involved in the transaction does not know whether another resident or a nonresident is buying the shares; however, by convention, under the debtor-creditor approach a balance of payments transaction is reported by the resident seller.
- *Nonresident investors purchase shares issued by residents and listed on the stock exchange in the compiling economy:* Transactions in securities should be recorded in the balance of payments accounts because a nonresident purchased shares issued by a resident. The brokerage company that conducted the transaction on behalf of its nonresident customer would know that a nonresident customer was involved in the transaction.
- *Uplifting of shares from an international exchange:* When shares issued by a nonresident are subsequently traded on the stock exchange in the compiling economy, an international transaction is recorded only when a resident purchases the shares.

Box 10.4 The Use of the Centralized Securities Database in the European System of Central Banks in Compiling Balance of Payments and IIP Statistics

Background

In the past decade, the European System of Central Banks (ESCB) has set up the Centralized Securities Database (CSDB) to provide complete, consistent, validated, and up-to-date information on all securities relevant to the ESCB's statistical objectives. The CSDB contains information on over nine million debt securities, equities, and also mutual fund shares/units issued or held by residents of the European Union (EU) member states or denominated in euro. This comprehensive reference database is fed with data from several commercial data providers, ESCB national central banks (NCB), and other sources. The most reliable value for each attribute is selected, and gaps are filled with estimates (in particular for prices and income), using a set of automated rules and algorithms and making use of expertise within the ESCB to enhance data quality.

From a statistical angle, the CSDB serves two purposes: to supply information for the direct compilation of aggregates for the euro area (such as securities statistics), and to supply reference information on individual securities and issuers, in particular to support the collection of holdings from reporting agents on a security-by-security (SBS) basis. Since 2008, the use of a SBS collection system for the compilation of portfolio investment in balance of payments and IIP statistics is mandatory for euro area economies. In the past years, SBS reporting has been also increasingly used (and has in some cases become legally required) for statistics on investment funds, financial vehicle corporations, and monetary financial institutions. A link of the CSDB with granular information on holders of securities is providing aggregates by economy of residence, economic sector, and possibly specific banking and/or insurance groups.

A mandatory data quality management framework has been developed by the ESCB Statistics Committee,¹ which lays down the responsibilities of the euro area NCBs and the European Central Bank (ECB). NCBs of the noneuro area EU member states voluntarily participate in the operation of the CSDB and its data quality management.

Benefits of Using the CSDB

One of the main advantages of the CSDB in the compilation of balance of payments and IIP statistics, when compared to aggregate reporting, is that compilers, rather than respondents, are responsible for the statistical classification of securities in a standardized and harmonized way. This promotes accuracy and consistency of the data, and adherence to international statistical standards. It avoids potential miscalculations, misclassifications, or the use of nongeneralized aggregation procedures by the different reporting entities, with clear advantages in terms of quality and homogeneity.

The CSDB, in combination with information on holdings of securities, allows for the compilation of aggregated statistics at market-to-market value and potentially offers all the ingredients for the compilation of comprehensive breakdowns in the portfolio investment category in balance of payments and IIP statistics, like type of instrument, issuer sector, issuer economy, currency of issue, original and remaining maturities, and so forth. The CSDB is also useful for the purposes of estimating revaluations and other changes in the volume of assets and liabilities by type of financial instru-

Box 10.4 The Use of the Centralized Securities Database in the European System of Central Banks in Compiling Balance of Payments and IIP Statistics (*concluded*)

ment, as well as to derive transactions from high-frequency position data (when not collected directly). It also allows for the derivation of investment income data on an accruals basis.

The CSDB provides a greater flexibility to cater for new or additional output requirements (e.g., changes in geographical areas, in the instrument or maturity breakdown or a new split by currency) and to easily obtain consistent time series. This is often possible without additional requests to the reporting entities, by means of amendments to the aggregation procedures managed by the compiler itself.

The SBS approach increases the quality of the data as it allows for better checking and greater accuracy in the calculation of position and/or flow data. Numerous quality checks are performed at the level of the individual security, instead of at aggregate level. For example, it allows for comparisons of total outstanding issuances and holdings at individual security level, reconciliation of flows and positions for individual securities, and improved bilateral geographical data comparisons.

The availability of information at the level of individual securities eases the identification of direct investment relationships between holders and issuers of specific (mainly equity) securities. This mitigates the risk of misclassification across balance of payments functional categories (i.e., between direct and portfolio investment) and/or double counting.

From the euro area perspective, the availability of CSDB data permits one to perform detailed checks in case of inconsistencies in contributions from euro area economies to the euro area balance of payments and IIP aggregates.

Costs and Challenges Associated with Using the CSDB

The setting-up costs of the CSDB were substantial, as are the maintenance costs. It implied relatively high costs in the implementation phase, largely attributable to purchasing/developing the necessary hardware and software. Information technology costs for database storage and processing of large volumes of data were also significant as the CSDB data are largely sourced from commercial database providers; the acquisition of this information is rather expensive on a continuous basis.

A high degree of automation is necessary for the exchange of data and for the comprehensive checking and aggregation routines. As a consequence, the responsible staff has to be well skilled and trained on the system.

The SBS reporting, in comparison with aggregated reporting, implies a shift of the costs from reporting agents to compilers, while the overall costs are expected to be lower. If reporters would have to aggregate the data according to statistical classifications themselves, each one of them would have to keep track internally of SBS information and run aggregation procedures, which would imply higher costs.

Moreover, the marginal costs of introducing new statistics have been reduced (reporting forms do not need to be changed) and the consistency among various types of statistics has been improved.

Source: European Central Bank.

¹The ESCB Statistics Committee is chaired by the ECB Statistics Directorate and composed of the ECB Statistics Directorate and heads of Statistics Departments of the ESCB NCBs.

Financial Derivatives (Other than Reserves) and Employee Stock Options

Concept and Coverage

10.52 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 risk, credit risks, and so on) can be traded in their own right in financial markets. Transactions and positions in financial derivatives are treated separately from the value of any underlying item to which they

are linked. The steps for recording transactions in financial derivative entries in the international accounts are outlined in the *BPM6*, paragraphs 8.34–8.40

10.53 Employee stock options (ESO) are options to buy the equity of a company, offered to employees of the company as a form of remuneration. ESOs carry the right, but not the obligation, to buy a certain amount of shares in the company at a predetermined price. An ESO is slightly different from a regular exchange-traded option because it is not generally transferable (if a stock option granted to employees can be traded on financial markets without restriction, it is classified as a financial derivative) and there

is no put option.¹⁷ Furthermore, employees typically must wait a specified vesting period before being allowed to exercise the option.

10.54 Transactions in ESOs are included in the international accounts only if they are cross border in nature; for example, in a few cases, the company that issues the option is a resident of a different economy from the employee. It is possible that multinational corporations may offer employees in one economy options on shares of their parent company in another economy. In the *BPM6*, stock options provided to suppliers of goods and services to the company are also included, in the scope of ESO transactions, on the basis that although these are not employees of the company, their nature and motivation are similar.

10.55 ESO cross border transactions may not be significant in a number of economies. In cases where underlying data collections do not capture the transactions data, the compiler should undertake exploratory work to determine the magnitude of such transactions as a basis for making decisions on the implementation of surveys or other collection methods.

Valuation of Financial Derivative Positions and Transactions

10.56 The valuation of financial derivative positions and transactions depends on the type of the instrument. The recording of these transactions and positions at inception and at settlement is outlined in the *BPM6*, paragraphs 8.34–8.40. The market value of a forward financial derivatives contract is derived from the difference between the agreed-upon contract price of an underlying item and the prevailing market price (or market price expected to prevail) of that item, times the notional amount, appropriately discounted. The notional amount is the amount underlying a financial derivatives contract that is necessary for calculating payments or receipts on the contract. This amount may or may not be exchanged. In the specific case of a swap contract, the market value is derived from the difference between the expected gross receipts and gross payments, appropriately discounted—that is, its net present value.

10.57 The market value for a forward contract can therefore be calculated using available information—market and contract prices for the underlying item, time to maturity of the contract, the notional value, and market interest rates. From the viewpoint of the counterparties, the value of a forward contract may become negative (liability) or positive (asset) and may change both in magnitude and direction over time, depending on the movement in the market price for the underlying item. An illustrative numerical example is provided in Box 10.5. Forward contracts settled on a daily basis, such as those traded on organized exchanges—and known as futures—have a market value, but because of daily settlement it is likely to be zero value at each end-period.

10.58 The price of an option depends on the potential price volatility of the price of the underlying item, the time to maturity, interest rates, and the difference between the contract price and the market price of the underlying item. For traded options, regardless of whether they are traded on an exchange, the valuation should be based on the observable price. At inception the market value of a nontraded option is the amount of the premium paid or received (in contrast to a forward-type contract, which does not generally require the recording of a transaction in a financial derivative because risk exposures of equal value are usually being exchanged). Subsequently nontraded options can be valued with the use of mathematical models, such as the Black-Scholes formula, that take account of the aforementioned factors that determine option prices. In the absence of a pricing model, the price reported for accounting or regulatory purposes might be used. Unlike forwards, options cannot switch from negative to positive value, or vice versa, but they remain an asset for the owner and a liability for the writer of the option.

Valuation and Recording of ESO Positions and Transactions

10.59 An ESO is an agreement made at a given date (the “grant” date) under which an employee may purchase a given number of shares of the employer’s stock at a stated price (the “strike” price) either at a stated time (the “vested” date) or within a period of time (the “exercise” period) immediately following the vesting date. The exercise date is the time at which the option can be exercised.

¹⁷ A put option gives the buyer the right to sell the underlying asset at the strike price, on or before the expiration date.

10.60 As noted in the *2008 SNA*, accounting recommendations of the International Accounting Standards Board (IASB) are that the company derives a fair value for the options at the grant date by taking the strike price of the shares at that time multiplied by the number of options to be exercisable at vesting date divided by the number of service years expected to be provided until the vesting date. This fair value is applied to the number of service years provided in each year to derive the cost to the firm in the year. In the *2008 SNA*, if there is neither an observable market price nor an estimate made by the corporation in line with the preceding IASB recommendations, the valuation of the options may be estimated using a position options pricing model (*2008 SNA*, paragraphs 17.386–17.387).

10.61 In recording ESOs in the international accounts, an estimate of the value should be made at the grant date. In the financial account of the economy of the employer, a transaction (incurment of a liability) is recorded as a contra-entry to compensation of employees (debit) in the current account. In the financial account of the economy in which the employee is resident, a transaction (acquisition of assets) is recorded as a contra-entry to compensation of employees (credit) in the current account. At this point, a financial asset/liability is also recorded in the IIP of the economy of the employee (household)/employer. In principle, any change in the value of the ESOs between the grant date and the vesting date should be treated as compensation of employees, while any change in the value between vesting date and exercise date is treated as a holding gain or loss.

10.62 When an ESO is exercised, positions under financial derivatives and employee stock options disappear to be replaced by the value of shares acquired. This change in classification takes place via transactions in the financial account as follows. In the financial account of the economy of the employer, a transaction under portfolio investment, equity and investment fund shares (increase in incurment of a liability), is recorded as a contra-entry to a decrease in financial derivatives and ESOs liabilities. In the financial account of the economy in which the employee is resident, a transaction under portfolio investment, equity and investment fund shares (increase in acquisition of assets), is recorded as a con-

tra-entry to a decrease in financial derivatives and ESOs assets.¹⁸

10.63 If an ESO is extinguished between the grant and vesting dates without an agreed settlement between the parties, another change in volume is recorded (a loss of an asset by the employee and a reduction of liabilities by the employer) in the other changes in financial assets and liabilities account (see *BPM6*, paragraph 9.12).

Data Sources

10.64 Financial derivative statistics compiled by a central bank may originate from three primary sources: (1) the central bank may for supervision and/or regulatory purposes, require banks to complete statements on derivative transactions and positions when trading with local and overseas counterparties; (2) a central bank's department of foreign exchange may collect information on banks engaging in foreign exchange operations; and (3) a central bank may collect flow and/or position data primarily for compiling the international accounts. A common issue is that a central bank's derivative statistics that are sourced from prudential-based data collections may not fully capture nonbank private sector's activities, and the compiler would need to develop enterprise surveys to enhance the collection of derivative statistics.

10.65 Regarding its own transactions in financial derivatives, a central bank should distinguish financial derivatives that are included in reserve assets so that the correct functional category classification can be achieved.

10.66 In some economies, several institutions may collaborate in the collection and compilation of data on derivative statistics; for example, the Treasury International Capital (TIC) Reporting System of the United States Department of Treasury is used to compile selected data on the United States financial account, including on transactions in financial derivatives. The Federal Reserve Bank of New York, acting as the agent of the Treasury, collects and edits the data on the TIC's Form D, which collects quarterly data on holdings of and transactions in derivatives contracts with foreign residents by economy.

¹⁸Changes in the value of an ESO may occur after the vesting date as a result of changes in the market price of the underlying instrument (equity). Such changes are revaluations, and in practice it may be feasible to recognize the revaluation only at the exercise date.

Box 10.5 Recording a Forward Contract in the International Accounts

In period t_0 , economy A signs an export contract to export goods for 1,200 two years later (t_2). To avoid the exchange rate risk, economy A engages in a forward contract with a nonresident in which it agrees to buy US\$1,000 at t_2 for €1,200—that is, at an exchange rate of €1.2 = US\$1 (spot market rate at t_0). At t_1 , the exchange rate is €1.1 = US\$1, and at t_2 , €1 = US\$1. The contract will be settled on a net basis. The relevant interest rates are 6 percent for both currencies in each period.

In t_0 : No transactions are recorded in the balance of payments and the IIP. The value of the contract at inception is zero. In the IIP, the position in financial derivatives is zero.

In t_1 : There are no transactions in the balance of payments. The IIP entries are as follows:

International investment position (in U.S. dollars)					
	Opening position	Transactions	Valuation change	Other changes	Closing position
Financial account					
Financial derivatives, liabilities	0	0	85.7		85.7

Explanation to entries in t_1 : At the end of t_2 , economy A will buy US\$1,000 for €1,200. At the current exchange rate economy A would need to pay only €1,100 for US\$1,000. The contract therefore has a negative value of €100 if settled at $t = 2$. The current value is $100/1.06 = €94.3$. In dollars, the current value of the contract is $94.3/1.1 = US\$85.7$. The negative current value is recorded in the IIP as an increase in liabilities due to a valuation change.

In t_2 : The balance of payments and IIP, entries are as follows:

Balance of payments (in U.S. dollars)					
	Credit	Debit	Net acquisition of financial assets	Net incurrence of liabilities	Net
Current account					
Goods	1,200				1,200
Financial account					
Currency and deposits, assets			1,000 [1,200–200]		1,000
Financial derivatives, liabilities				–200	–200

International investment position (in U.S. dollars)					
	Opening position	Transactions	Valuation change	Other changes	Closing position
Financial account					
Currency and deposits, assets ¹	0	1,000			1,000
Financial derivatives, liabilities	85.7	–200	114.3		0

¹Assuming an opening position of zero.

Explanation to entries in t_2 : At $t = 2$, economy A exports goods for €1,200. At the prevailing exchange rate this receipt is equivalent to US\$1,200, which is shown as an increase in currency and deposits, assets. Under the forward contract, economy A has agreed to exchange €1,200 for US\$1,000. At the current exchange rate, the value of the €1,200 equals US\$1,200. The net value is therefore –US\$200 (receive US\$1,000; pay US\$1,200). The net value of the contract does not need to be discounted as the contract will be settled at the same instance. The settlement of the contract is recorded in the balance of payments as a decrease of currency and deposits, assets (US\$200), and an equivalent decrease of financial derivatives, liabilities. In the IIP, the opening position of financial derivatives, liabilities of US\$85.7 and the transaction (settlement of the contract at US\$200) are offset by a valuation change of US\$114.3 to bring the closing position to zero.

Transactions are based on net settlements (all transactions including the proceeds from the purchase and sale of derivatives and all contractual flows).

10.67 As is the case for data on portfolio investment, the major data suppliers are local financial intermediaries or agents such as deposit-taking cor-

porations except the central bank, securities houses, share registrars, nominees, custodians, trusts, and fund managers that often engage in external financial investment activities. The data on financial derivatives may be collected through the framework of the central bank's MFS, and/or through surveys (see Appendix 7 for a model form for collecting data on financial derivatives). However, it is not possible to derive reliable estimates of transactions from data on changes in derivatives positions at market value due largely to volatility in prices.

10.68 As in the case of ESOs, transactions in financial derivatives may not be significant in a number of economies. In cases where underlying data collections do not capture the transactions data, the compiler should undertake exploratory work to determine the magnitude of such transactions as a basis for making decisions on the implementation of surveys or other collection methods.

Other Investment Concept and Coverage

10.69 Other investment covers other equity; currency and deposits; loans; insurance, pension and standardized guarantee schemes;¹⁹ trade credit and advances; other accounts receivable/payable-other; and special drawing rights (SDRs). With the exception of loans and currency and deposits, these financial instruments have either been introduced or updated in the *BPM6*. An overview of other investment components is presented ahead.

Data Sources and Compilation Issues

Other equity

10.70 Other equity is included in other investment, when it is not direct investment or reserve assets. Other equity (as defined in *BPM6*, paragraph 5.26) is not in the form of securities, so it is not included in portfolio investment. It can include equity in quasi-corporations, such as branches, trusts, limited liability and other partnerships, unincorporated funds, and notional units for ownership of real estate and other natural resources. In most cases, equity in quasi-corporations and notional

units for ownership of land is included in DI; however, it is included in other investment (under other equity) if the share of voting power is less than 10 percent. As noted in the *BPM6*, paragraph 5.26, participation in some international organizations is not in the form of securities and so it is classified as other equity. Ownership of currency union central banks is included in other equity.

10.71 Regarding the government sector, other equity cannot be a liability of general government units, but they can be held by these units as assets. Information on participation in international organizations is generally available from government and central bank records. In the case of other sectors, the data may be available from business surveys. However, in cases of notional units for ownership of land, positions may not be directly observable, and so the compiler could use estimation methods similar to those used for DI (*BPM6*, paragraph 2.16).

Currency and deposits

10.72 Position data on the assets and liabilities of the central bank, deposit-taking corporations (except the central bank), and other financial corporations are generally collected within the framework of a economy's MFS (see Appendix 6, "Linkages of the International Accounts with Monetary and Financial Statistics"), while those of the general government are collected within the framework of government finance statistics (GFS). For resident nonfinancial corporations, households, and NPISHs, data on currency and deposits (assets) may be collected through surveys. The BIS' international banking statistics also provides a source for data on the external deposits of resident other financial corporations and nonfinancial corporations (see Chapter 7). A comprehensive ITRS captures transactions in deposits (assets and liabilities).

10.73 Positions in deposits are recorded at nominal value.²⁰ In cases where only position data are available, transactions in deposits denominated in domestic currency can be readily derived (except in the case of deposits sold at discount) from changes in

¹⁹See Appendix 2 for a discussion of employment-related pension schemes and social security.

²⁰Unallocated gold account assets not held as reserve assets, and all unallocated gold account liabilities, are classified as deposits. For classification of gold accounts, see the *BPM6*, Chapter 5, paragraphs 5.76–5.77.

positions; these transactions would cover both funds deposited and withdrawn, as well as any accrued interest that would have counterpart entries in the current account.

10.74 Transactions denominated in a foreign currency are converted to their value in the domestic currency at the rate prevailing when the transactions take place, and positions are converted at the rate prevailing on the balance sheet date. The midpoint between the buying and selling rates should be used (at the time of transaction (for transactions) or at the close of business on the reference date (for positions)).

10.75 MFS data are typically recorded in domestic currency. For the purposes of compiling the international accounts, the compiler should seek to obtain the position data in original currency so as to eliminate the impact of exchange rate movements in deriving transactions. After the transactions are derived in the original currency of denomination, they should then be converted to the currency used for compiling the balance of payments, using the midpoint between the buying and selling rates of the relevant currencies. While the use of the daily average exchange rate for daily transactions usually provides a good approximation, this may not be practicable for transactions derived from MFS; in this case, the compiler should use the average rate for the shortest period for which the position data are compiled.

Loans

10.76 For the international accounts, information on loans is generally available through the compilation system employed for external debt statistics (EDS). However, in some economies, the scope of the EDS may be limited to the general government (or public sector), and data compilers may need to undertake additional steps to include the debt of other sectors. The range of data sources available is likely to change with progressive liberalization of foreign exchange regulations from administrative and banking records towards survey collection methods.²¹ The administrative and financial records of government borrowing and repayments are usually the primary

source of transactions data on public sector loans. Further, central banks in most economies undertake administrative functions related to central government external debt management, and their payments systems may be designed to cover external loan transactions made on behalf of the Ministry of Finance.

10.77 Compiling comprehensive data for the private sector presents a greater degree of difficulty than for the public sector. Problems can arise from the limitations inherent in the available information sources. In all instances, the importance and relevance of the data need to be weighed against the likely costs of collection, and, where appropriate, alternative sources and methods used to produce data of an acceptable degree of accuracy and reliability.

10.78 In circumstances where controls on foreign borrowing are still in place, it is possible for the central bank to compile information on private sector borrowing from information provided by borrowers for regulatory purposes, such as when they seek approval for foreign borrowing. Also, commercial banks might well be required to report on foreign transactions of their private sector clients. However, as liberalization of financial transactions proceeds, and such information becomes less readily available, there is a need to develop methods of collecting data on private sector debt through other means. The main sources are as follows:

- *Deposit-taking corporations* are closely regulated in nearly all economies—and so are usually identifiable to the statistical agency—and have to report balance sheet data to central banks or regulatory agencies for both supervisory and monetary policy purposes. These reports can be a major source of information on the outstanding external debt of banks, and from which transactions can be derived.
- Similarly, *other financial corporations* data might be compiled in some economies within the framework of monetary and financial statistics. If this is the case, the compiler could use this data source. Also, in some economies certain financial intermediaries, such as investment funds, insurance corporations, and pension funds, report their balance sheets to supervisory authorities. Those reports could be accessible to statistical authorities as a data source, including for deriving transactions.

²¹The *External Debt Statistics: Guide for Compilers and Users (2013)* outlines the impact of the regulatory environment on the collection techniques for external debt statistics. Chapter 11 and Appendix 8 also discuss the compilation of public sector and private sector debt, respectively.

- When no comprehensive exchange controls exist, data on loans and other external debt of *other sectors* are best obtained through periodic surveys of those companies (including *other financial corporations*) that are involved in external transactions. In some instances, the so-called registers of external loans are used to obtain data on loans received or granted by the nonbank sector.
- Loans made by some creditors might be available from external sources, such as debt owed to international financial organizations (e.g., international financial corporations), or position data on nonbank liabilities to foreign banks that could be cross-checked with the international banking statistics from the BIS. Some compilers may use the BIS data from nonresident banks on loans in relation to resident nonbanks (nonbanks include other sectors as well as the general government sector—that is, nonbanks include public and private sector units) to supplement other sources.

10.79 Similar to the accrual of interest on debt securities, interest costs that have accrued and are not yet payable on loans are included as part of the value of the loan. That is, the accrual of interest costs not yet payable continuously increases the principal amount outstanding of the loans (and should be included in loans transactions in the financial account). Arrears occur when principal and/or interest payments are not made when due, such as on a loan. When arrears occur, they should continue to be shown in the same debt instrument until the liability is extinguished. The nonpayment of principal and/or interest when due leaves the debt liability position unchanged. Arrears should continue to be reported from their creation—that is, when payments are not made—until they are extinguished, such as when they are repaid, rescheduled, or forgiven by the creditor. A compiler would also need additional information on arrears for recording exceptional financing transactions; these are identified in Chapter 16, Table 16.3.

10.80 As discussed in the *BPM6*, paragraph 12.51, loans with concessional interest rates could be seen as providing a current transfer equal to the difference between the actual interest rate and the market interest rate. Further, if such a transfer is recognized, it could be reported as current international cooperation because the concessional lending is provided by official

creditors (e.g., foreign governments or international organizations). The interest would then be adjusted by the same amount. However, the compiler should be aware that the treatment of concessional lending is yet to be fully evolved, and so it is recommended that the information on concessional debt be provided as supplementary. Paragraph 12.51 of the *BPM6* describes which information should be shown as supplementary.

10.81 The *BPM6* also clarifies the treatment of securities repurchase agreements and gold swaps. As indicated in the *BPM6*, paragraph 5.53, the supply and receipt of funds under a securities repurchase agreement may be treated as a loan or deposit. It is generally a loan, but is classified as a deposit if it involves liabilities of a deposit-taking corporation and is included in national measures of broad money (see Table 10.3). If a securities repurchase agreement does not involve a supply of cash (i.e., there is an exchange of one security for another, or one party supplies a security without collateral), there is no loan or deposit. Margin calls in cash under a repo are classified as loans.

10.82 In international accounts, entries under loans are registered also in connection to financial leases (*BPM6*, paragraphs 5.56–5.60). The economic nature of the arrangement is that the lessor is providing a loan to allow the lessee to acquire the risk and rewards of ownership (economic ownership), but the lessor retains the legal title. Thereafter the leased asset is shown on the balance sheet of the lessee and not of the lessor. Under statistical convention, the lessor is shown as making a loan to the lessee with whom the lessee acquires an asset; the loan is shown as an asset of the lessor and a liability of the lessee. At the inception of the lease, the value of the loan is equal to the full value of the good. At the maturity of the lease, the loan liability arising from the residual value of the goods leased is extinguished either when the goods are returned or when a payment is made and legal ownership changes hands. A numerical example of a financial lease is presented in the *BPM6*, Appendix 6b, Box A6b.I.

10.83 Accounts receivable/payable, which are treated as a separate category of financial assets/liabilities, and loans that have become debt securities are excluded from loans.

10.84 Loan positions are recorded at nominal value; deriving transactions from positions data is

therefore relatively straightforward for loans denominated in domestic currency, with the issue of addressing price changes not applicable. However, for loans (as well as for deposits and other accounts receivable/payable) sold at discount, the transaction values recorded in the financial account may differ from the nominal value recorded in the IIP. Such differences are recorded as valuation changes in the other changes in financial assets and liabilities account.

Insurance, pension, and standardized guarantees schemes

10.85 The key features of insurance, pension, and standardized guarantee schemes are presented as a topical summary in the *BPM6*, Appendix 6c. Compilation guidance on the treatment of these instruments in the international accounts is presented in Appendix 2 of the *Guide*. In analyzing the economic nature of these operations, it is important to rearrange these processes to derive the service, investment income, transfer, and investment elements.

Trade credit and advances

10.86 Trade credit and advances consist of claims or liabilities arising from the direct extension of credit by suppliers for transactions in goods and services, and advance payments by buyers for goods and services and for work in progress (or to be undertaken). Long- and short-term trade credit and advances are shown separately. Trade-related loans provided by a third party, such as a bank, to an exporter or importer are not included in this category but under loans, earlier. Note that letters of credit are not included in loans because they are contingent liabilities. Progressive payments (or stage payments) on high-value capital goods—such as ships, heavy machinery, and other structures that may take years to complete—do not give rise to trade credit and advances unless there is a difference in timing between the change in ownership of these high-value goods and the payments. In some economies, the value of trade credit and advances in balance of payments can be significant on both assets and liabilities sides. Therefore their estimation requires careful consideration.

10.87 Data on trade credits and advances may be sourced from companies' balance sheet data, business surveys, and/or external debt statistics. In some cases, compilers use a proxy method by comparing

customs-based information on goods with payments made through the banking system (i.e., ITRS data). For example, where information on both the date of shipment and the date of payment are reported by the importers, trade credit and advances are imputed taking into account the difference between these dates, as illustrated in Chapter 4. In practice, the adoption of such an approach should be done at a microlevel, as a simple estimation based on the difference between customs-based data on imports and ITRS-based data on imports would not provide an accurate estimate of trade credit and advances. Further, when adopting this approach, the compiler should monitor trends in the time series to ensure reasonableness; for example, if the net acquisition of these assets/net incurrence of liabilities is consistently increasing, this may call attention to gaps in estimating the repayment of trade credit and advances. For banks, data on trade credit and advances can be obtained from the MFS.

Other accounts receivable/payable-other

10.88 The other category of other accounts receivable/payable includes accounts receivable/payable other than those included in trade credit and advances or other instruments (e.g., liabilities for dividends, taxes, wages and salaries, social contributions, financial derivatives contracts that were not paid when due, etc.) (see *BPM6*, paragraph 5.73). Interest accrued should be recorded with the financial asset or liability on which it accrues, not as other accounts receivable/payable, with the exception of securities lending and gold loan fees, which are treated as interest by convention. The treatment of securities lending and gold loan fees is presented in Table 10.3.

10.89 Data on other accounts receivable/payable other may be sourced from the MFS (for the financial corporations sector), GFS (for general government), companies' balance sheet data, business surveys, and external debt statistics. Position data captured by these sources are recorded at nominal value. As in the case of currency and deposits, if only position data are available, the transaction value for other accounts receivable/payable can be readily derived as a change in positions for positions denominated in domestic currency (except when sold at discount).

10.90 In using companies' balance sheet data, the compiler should be aware of the composition of

Table 10.1 Recording Increases in SDR Holdings and Allocations, and Associated Interest Accruals¹

Balance of payments	Transactions during the period	
Current account Other investment income	Accrued interest on total SDR holdings (credit)	Accrued interest on total SDR allocations (debit)
Financial account Other investment (liabilities) SDR allocations	Value of the new general and special allocations <i>plus</i> accrued but unsettled interest on total outstanding allocations (recorded under <i>net incurrence of liabilities</i>)	
Reserve assets Special drawing rights (holdings)		Value of the new general and special allocations <i>plus</i> accrued but unsettled interest on total outstanding holdings (recorded under <i>net acquisition of financial assets</i>)
IIP	End of period positions	
Other investment (liabilities) SDR allocations	Value of (total) allocations including unsettled interest payable	
Reserve assets Special drawing rights (holdings)	Value of (total) holdings including unsettled interest receivable	

Source: IMF staff.

¹ Guidance on how SDR allocations should be recorded in the balance of payments and IIP is also available at <http://www.imf.org/external/np/exr/faq/pdf/sdrfaqsta.pdf>.

accounts receivable/payable, as, for example, trade credit and advances may be included and would need to be removed and reallocated to its own financial instrument.

10.91 As noted earlier, MFS data are typically recorded in national currency. For the purposes of compiling the international accounts, the compiler should seek to obtain the position data in original currency so as to eliminate the impact of exchange rate movements in deriving transactions. These guidelines also apply to the use of companies' balance sheet data.

Special drawing rights (SDRs)

10.92 Under the *BPM6*, the allocation of SDRs to participants in the IMF SDR Department is shown as the incurrence of a liability of the recipient under SDRs in other investment, with a corresponding entry under SDRs in reserve assets. A main change in the treatment of SDRs under the *BPM6* is the recognition of the SDR allocation as a long-term debt liability.

When there are new allocations of SDRs, transactions in both assets and liabilities should be recorded.²² The recording of SDR holdings and allocations, and associated interest accruals, is summarized in Table 10.1.

Reserve Assets

Description and classification

10.93 Reserve assets are those external assets that are readily available to and controlled by monetary authorities for meeting balance of payments financing needs, for intervention in exchange markets to affect the currency exchange rate, and for other related purposes (such as maintaining confidence in the currency and the economy, and serving as a basis for foreign exchange borrowing). The presentation of the standard components in the *BPM6* contains a subclassification of reserve assets by instrument—monetary gold (gold bullion and unallocated gold accounts), special drawings rights, reserve position in the Fund, and other

²²The *BPM5* recommended the allocation of SDRs to be registered as a valuation adjustment to the IIP.

reserve assets (i.e., currency and deposits, securities, financial derivatives, and other claims).

10.94 To qualify for classification as a reserve asset, the asset must be:

- A claim on a nonresident or in gold bullion of significant purity (*BPM6*, paragraphs 6.65 and 6.78)
- Owned or under direct and effective control of the monetary authorities (*BPM6*, paragraph 6.67)
- Readily available in the most unconditional form (i.e., be liquid) (*BPM6*, paragraph 6.69)
- Denominated and settled in convertible foreign currencies that are freely usable for settlements of international transactions (*BPM6*, paragraph 6.72)²³
- Of high quality (in general) (*BPM6*, paragraph 6.70).

10.95 In accordance with the residence concept, reserve assets, other than gold bullion, must be claims on nonresidents (*BPM6*, paragraph 6.65).²⁴ The authorities' foreign currency claims on residents, including claims on resident banks, are not reserve assets.

10.96 However, there may be cases where institutional units other than the monetary authorities (such as domestic banks) hold legal title to external foreign currency assets that are unencumbered, and such external assets can be considered reserve assets under the following conditions:

- The resident company can transact only in those claims with nonresidents on the terms specified by the monetary authorities or only with their express approval.
- The authorities have access on demand to these claims on nonresidents to meet balance of payments financing needs and other related purposes.
- A prior law or an otherwise legally binding contractual arrangement confirms this agency role of the resident company that is actual and definite in intent.

²³For a discussion on the terms usable currencies, freely usable currencies, and convertible currencies, and their applicability in the context of reserve assets, see *International Reserves and Foreign Currency Liquidity: Guidelines for a Data Template*, Appendix 7, Frequently Asked Questions on the Characteristics of Reserve Assets.

²⁴Gold bullion is an asset but it is not a claim, because no other entity has a corresponding liability.

10.97 In the foregoing circumstances, it is not the authorities' claim on the resident bank that is included in reserve assets, but instead it is the resident bank's claim on a nonresident that is regarded as a reserve asset, because the latter claim is under the direct and effective control of the monetary authorities.

10.98 The treatment of monetization and demonetization of gold bullion is discussed in the *BPM6*, paragraph 9.18, and the reclassification of unallocated gold accounts is discussed in paragraph 9.19. In the case of a gold swap, gold is exchanged for cash and a firm commitment is made to repurchase the gold at a future date. Although accounting practices for gold swaps vary among economies, it is recommended that a gold swap be treated, for statistical purposes, the same way as a collateralized loan or repo. Thus, the cash lender within the gold transaction should not include the gold in its IIP or in its reserve assets (see Table 10.3).

10.99 When held as reserve assets, unallocated gold accounts of monetary authorities represent claims on nonresidents and are included in gold and not under currency and deposits (assuming the gold is available upon demand to the monetary authority and is of high quality). Allocated gold accounts of monetary authorities are included in gold bullion. With gold deposits and gold swaps, the original owner of the gold retains the risks and rewards of changes in the price of the asset. Accordingly, for gold deposits and gold swaps, there is considered to be no change of economic ownership of the gold, so no transaction in gold is recorded.

10.100 The compiler should seek to obtain the complete instrument breakdown as shown in Table 10.2. Data for each instrument, at least for transactions and positions, should be classified by currency to allow for reliable estimates of exchange rate changes. Regarding its own transactions in financial derivatives, a central bank should distinguish financial derivatives that are included in reserve assets so that the correct functional category classification can be identified.

10.101 Reserve position in the IMF is a component of *reserve assets* and is the sum of (1) the "reserve tranche"—that is, the foreign currency (including SDRs) amounts that a member economy may draw from the IMF at short notice; and (2) any indebtedness

Table 10.2 Data Required on Reserve Assets

	Opening position	Transactions		Other changes in reserve assets due to:			Closing position
		Increase	Decrease	Other changes in volume	Exchange rate changes	Other price changes	
Monetary gold							
Gold bullion							
Unallocated gold accounts							
Special drawing rights							
Reserve position in the IMF							
Other reserve assets							
Currency and deposits							
Claims on monetary authorities							
Claims on other entities							
Securities							
Debt securities							
Short-term							
Long-term							
Equity and investment fund shares							
Financial derivatives							
Other claims							
<i>Memorandum:</i>							

Source: IMF staff.

of the IMF (under a loan agreement) in the General Resources Account that is readily available to the member economy, including the reporting economy's lending to the IMF under the General Arrangements to Borrow (GAB) and the New Arrangements to Borrow (NAB).²⁵

10.102 For a more detailed discussion of the common compilation issues related to reserve assets, see the *International Reserves and Foreign Currency Liquidity: Guidelines for a Data Template (IRFCL)*. Issues, including the lending arrangements with the IMF, are addressed in Appendix 7, Frequently Asked Questions of the *IRFCL*. Appendix 3 of the *IRFCL* summarizes the treatment of specific transactions in reserves assets, including repurchase agreements (repos), reverse repos, securities lending, and gold swaps.

²⁵ See the *BPM6*, paragraphs 6.85 and 7.77–7.78, for more information.

Data sources and methods

10.103 The records of monetary authorities provide the most direct source of data on transactions, other flows, and positions on reserve assets. These data are usually sourced from the relevant department(s) of the central bank (accounting and/or reserve management), and the compiler should collect the transactions and position data separately (as shown in Table 10.2), to obtain a reliable measure of transactions in reserve assets.

10.104 Central banks are sometimes reluctant to release details of reserve asset transactions and positions. Concerns of the central bank and requirements of users of balance of payments data must be carefully weighed by the compiler. In deference to the former, it may—with skillful combining of data—be possible to meet requirements of the conceptual framework without publishing a detailed breakdown of reserve asset transactions and positions.

Table 10.3 Treatment of Securities Lending, Gold Loans, and Gold Swaps where the Resident Owns the Securities or Gold

Type of transaction/position	Instrument	Balance of payments	IIP	Recording of lending fees
Securities lending without cash collateral (securities are held as reserve assets)	Equity securities, debt securities	—	Reserve assets, equities/debt securities (A) ¹	Other investment income, interest ³
Securities lending without cash collateral (securities are held as direct or portfolio investment)	Equity securities, debt securities	—	Direct / portfolio investment, equity/debt securities (A) ¹	Other investment income, interest ³
Securities lending with cash collateral (securities are held as reserve assets)	Equity securities, debt securities	(a) Other investment, loans (L); and	For equity/ debt securities: Reserve assets, equity/debt securities (A) ¹	³
		(b) Other investment, currency and deposits (A) or reserve assets, currency and deposits (A) ²	For cash received: (a) Other investment, loans (may be a reserve-related liability) (L); and (b) Other investment, currency and deposits (A) or reserve assets, currency and deposits (A) ²	⁴
Securities lending with cash collateral (securities are held as direct or portfolio investment)	Equity securities, debt securities	(a) Other investment, loans (L); and	For equity/ debt securities: Direct / portfolio investment, equity/debt securities (A) ¹	³
		(b) Other investment, currency and deposits (A) or reserve assets, currency and deposits (A) ²	For cash received: (a) Other investment, loans (L); and (b) Other investment, currency, and deposits (A) or reserve assets, currency and deposits (A) ²	⁴
Gold loans without cash collateral (gold is held as reserve assets)	Allocated gold accounts, unallocated gold accounts, gold bullion	—	Reserve assets, monetary gold, gold bullion/unallocated gold accounts (A) ¹	Other investment income, interest
Gold loans without cash collateral (gold is not held as monetary gold)	Allocated gold accounts, unallocated gold accounts, gold bullion not held as monetary gold	—	—	Other investment income, interest
Gold loans with cash collateral (gold is held as reserve assets)	Allocated gold accounts, unallocated gold accounts, gold bullion	(a) Other investment, loans (L); and	For allocated/unallocated gold accounts: Reserve assets, monetary gold, gold bullion/unallocated gold accounts (A) ¹	⁴

Table 10.3 Treatment of Securities Lending, Gold Loans, and Gold Swaps where the Resident Owns the Securities or Gold (continued)

Type of transaction/position	Instrument	Balance of payments	IIP	Recording of lending fees
		(b) Other investment, currency and deposits (A) or reserve assets currency, and deposits (A) ²	For cash received: (a) Other investment, loans (may be a reserve-related liability) (L); and (b) Other investment, currency and deposits (A) or reserve assets, currency and deposits (A) ²	
Gold loans with cash collateral (gold is not held as monetary gold)	Allocated gold accounts, unallocated gold accounts, gold bullion not held as monetary gold	— (a) Other investment, loans (L), and (b) Other investment, currency and deposits (A) or reserve assets currency, and deposits (A) ²	For allocated gold accounts: — For unallocated gold accounts: Other investment, currency and deposits (A) ¹ For cash received: (a) Other investment, loans (may be a reserve-related liability) (L); and (b) Other investment, currency and deposits (A) or reserve assets, currency and deposits (A) ²	4
Gold swaps (gold is held as reserve assets)	Allocated gold accounts, unallocated gold accounts, gold bullion	(a) Other investment, loans (L); and (b) Other investment, currency and deposits (A) or reserve assets, currency and deposits (A) ²	For allocated/unallocated gold accounts: Reserve assets, monetary gold, gold bullion/unallocated gold accounts (A) ¹ For cash received: (a) Other investment, loans (may be a reserve-related liability) (L); and (b) Other investment, currency and deposits (A) or reserve assets, currency and deposits (A) ²	Other investment income, interest
Gold swaps (gold is not held as monetary gold)	Allocated gold accounts, unallocated gold accounts, gold bullion not held as monetary gold	(a) Other investment, loans (L); and	For allocated gold accounts: — For unallocated gold accounts: Other investment, currency and deposits (A) ¹	Other investment income, interest

Table 10.3 Treatment of Securities Lending, Gold Loans, and Gold Swaps where the Resident Owns the Securities or Gold (concluded)

Type of transaction/position	Instrument	Balance of payments	IIP	Recording of lending fees
		(b) Other investment, currency and deposits (A) or reserve assets, currency and deposits (A) ²	For cash received: (a) Other investment, loans (L); and (b) Other investment, currency and deposits (A) or reserve assets, currency and deposits (A) ²	

Note: "A" means assets and "L" means liabilities;

¹ Means that there is no change in economic ownership, and thus assets remain unaffected.

² If the cash meets the criteria for classification in reserve assets.

³ If coupons or dividends are paid to the securities borrower, who then pays the securities lender (economic owners), a rerouting from the securities borrower to the securities lender of these payments is recorded (see *BPM6*, paragraph 11.69). The re-routed payments should be recorded in the same functional category(ies) as the underlying instruments, usually portfolio investment or reserve assets.

⁴ When securities and gold are lent with cash collateral, the arrangements are regarded as giving rise to a loan or deposit for the amount of cash provided as collateral (see *BPM6*, paragraph 7.59). The interest accrued on such loan or deposit should be treated applying the standard classification which is *other investment income, interest*. However, if the accrual of interest meets the criteria for recording in reserve assets and these data are available for publication, then the interest accrued should be classified as *reserve assets income, interest*.

Source: IMF staff.

Lending to the Fund

10.105 The IMF maintains two standing multilateral borrowing arrangements—the expanded NAB and the GAB. If the IMF considers that its forward commitment capacity might fall short of its member economies' needs—for example, in the event of a major financial crisis—it can activate these arrangements.

10.106 The GAB is a long-standing credit arrangement under which 11 advanced economies stand ready to loan domestic currency to the IMF for the purpose of forestalling or addressing situations that could impair the international monetary system. The NAB is a set of credit arrangements with selected member economies that stand ready to lend to the IMF. A contingent claim results from participation in the NAB or GAB, equal to the undrawn amount of credit. As noted, the IMF may require a member who participates in the NAB or in the GAB to lend to the IMF at short notice. When funds are actually lent, the member obtains a claim on the IMF that qualifies as a reserve asset, and should be included in the reserve position in the IMF (RPF).²⁶

10.107 In response to the financial crisis and following a call by the International Monetary and Financial Committee in April 2009, the IMF took a number of actions aimed at substantially increasing its lending resources. Additional arrangements under the umbrella of the General Resources Account include Bilateral Loan Agreements (BLA)—an agreement under which an IMF member commits to lending funds, usually in its domestic currency, up to an agreed limit, to the IMF, upon demand by the

IMF—and Note Purchase Agreements (NPA)—an agreement under which an IMF member commits to purchasing a promissory note from the IMF on demand, up to an agreed limit.

10.108 In order for a loan that is created under a BLA with the IMF to meet the definition of a reserve asset, the claim must be readily available to meet a balance of payments financing need. This condition would be met if the IMF will repay the loan, or someone stands ready to purchase the original lender's claim on the IMF, within a very short period, through the existence of a liquid market, such as market makers, who stand ready to buy and sell at all times. In addition, all of the preceding transactions must involve (or be capable of involving) a freely usable currency (other than the member's own currency). In this circumstance, the loan that is created under a BLA should be recorded under RPF. However, if the loan can be repaid over a protracted period (some loan agreements might allow repayment up to one year), or does not allow repayment in a reserve asset currency, the loan does not qualify as a reserve asset.

10.109 Two classes of notes were designed under the NPAs, Series A and Series B Notes. Series A notes meet the liquidity criterion for classification as a reserve asset. Series B Notes are encashable as soon as practicable within 12 months of recognition of a balance of payments need. Holders of these notes therefore are not assured that the notes will be encashed promptly at the time of a balance of payments financing need, and so these notes do not meet the statistical definition of official reserve assets.

²⁶For more information on NAB and GAB see <http://www.imf.org/external/np/exr/facts/gabnab.htm>.