

## CHAPTER 9. THE INTERNATIONAL INVESTMENT POSITION

### A. Introduction

9.1 This chapter provides practical advice on how an economy might improve the availability of external position data in a relatively short time. The goal is to use available data. This would be the first phase in developing IIP statistics. A subsequent phase would involve developing survey/reporting systems for compiling comprehensive IIP statements, Chapters 2 to 7 of the *Guide* elaborate on these issues. This chapter draws on the advice provided in the *Quarterly International Investment Position Statistics: Data Sources and Compilation Techniques (IIP Guide)*, which should also be consulted.

9.2 Part B discusses the existing data sources in the following broad areas—domestic sources, foreign sources, and presents a summary table of the possible data sources while Part C includes an example of deriving quarterly positions from quarterly transactions data. Part D discusses possible data sources for the other changes in financial assets and liabilities account of the IIP.

9.3 This chapter also draws on the international guidelines for macroeconomic statistics set out in the *BPM6*, the *External Debt Statistics: Guide for Compilers and Users (EDSG)*, the *Monetary and Financial Statistics Manual, 2000 (MFSM)*, the *Government Finance Statistics Manual, 2001 (GFSM)*, and the *System of National Accounts 2008 (2008 SNA)*.

### B. Data Sources

9.4 This section discusses the following data sources—the domestic sources, which are often already available for other statistical systems and foreign sources from international organizations or administrative records. In setting out the range of data sources that countries can possibly use, this section notes that information that can be obtained from these data sources is partly overlapping—that is, more than one source described may provide information on any given claim or liability.

9.5 Further, some of the data sources may not be available in particular countries. The compiler will, therefore, need to choose those sources that provide the most adequate data in the country's specific circumstances. These choices will most probably change over time as an economy develops more comprehensive sources. 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. The *EDSG*<sup>1</sup> outlines the impact of the regulatory environment on the collection techniques for external debt statistics (EDS), which is also relevant for IIP statistics.

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<sup>1</sup> See *External Debt Statistics: Guide for Compilers and Users (2013)*, Chapter 10.

## B1. Domestic Data Sources

9.6 The first step in identifying data sources for compiling IIP consists of a stocktaking exercise of macroeconomic datasets and other data collected by an economy for other than purely statistical purposes. These existing datasets may be relevant for compiling an IIP statement.

9.7 Domestic data sources can be divided into (i) those collected for macroeconomic statistical purposes that follow accounting and classification principles similar to the IIP, and (ii) those that serve other purposes, including administrative data.

9.8 This section reviews four macroeconomic statistical datasets:

- External assets and liabilities of deposit-taking corporations (DTC)<sup>2</sup>, except the central bank;
- External assets and liabilities of the central bank (CB);
- External assets and liabilities of general government (GFS); and
- Balance of payments financial account.

9.9 It also reviews three nonstatistical sources:

- Financial statements of enterprises (FS);
- Approvals of foreign investment (AP); and
- The financial press (FP).

9.10 The major gap in the sources covered in this section is in the area of external financial assets and liabilities of the private nonbank sector. Administrative data on the private nonbank sector may exist only if restrictive capital controls are in place, and in such cases, the importance of the private nonbank sector's external positions might be rather small.

### (i) Macroeconomic statistical datasets

9.11 The first two domestic data sources to be examined—those of deposit-taking corporations and the central bank—are existing sources for monetary and financial statistics. The third dataset is drawn from government finance statistics while the fourth refers to statistics of the external sector statistics.

9.12 The *Monetary and Financial Statistics Manual, 2000 (MFSM)*<sup>3</sup> presents an internationally accepted framework that can be used for three sectoral components of the IIP. The *Sectoral Balance Sheet for the Central Bank* can be used to compile statistics for the central bank sector in the IIP and the *Sectoral Balance Sheet for Other Depository*

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<sup>2</sup> Acronyms are used in Table 9.5 to identify data sources.

<sup>3</sup> The *MFSM* is being updated in 2013.

*Corporations*<sup>4</sup> can be used for the deposit-taking corporations, except the central bank sector of the IIP. If countries complete the *Sectoral Balance Sheet for Other Financial Corporations* (OFC),<sup>5</sup> it may be used to compile IIP data for other sectors - other financial corporations. However, the compiler should be aware of differences in coverage of deposit-taking corporations, except the central bank and other financial corporations (OFC) in *BPM6* and other depository corporations (ODC) and other financial corporations (OFC), respectively in *MFSM (2000)*. Thus, in the *MFSM, (2000)*, ODC are defined to include only those resident financial corporations (except the central bank) and quasi-corporations that are mainly engaged in financial intermediation and that issue deposits and close substitutes that are included in the national definition of broad money, which may exclude (include) institutional units that are included (excluded) within the *BPM6* (and 2008 SNA) definition of deposit-taking corporations, except the central bank. Rather than as deposit-taking corporations, these excluded institutional units would be classified as other financial corporations (or vice versa). An example of such institutional units is money market funds.

### **Deposit-taking corporations, except the central bank**

9.13 Banks<sup>6</sup> are closely regulated in almost all countries; therefore, usually extensive data on their financial transactions and positions are collected for monetary policy and banking supervision purposes. Such data generally are available on a very frequent (mostly monthly) and timely basis. In principle, they could thus constitute an important source of information for IIP purposes, including for quarterly IIP.

9.14 The Sectoral Balance Sheet for Other Depository Corporations (ODC)<sup>7</sup>, which can be used by the compiler to identify and select the external assets and liabilities of deposit-taking corporations, except the central bank are reported to the IMF through the standardized report forms (SRFs) for reporting monetary and financial data. Summary lines from the *Standardized Report Form 2SR for Other Depository Corporations* are presented in Table 9.1 below. However, as mentioned above, the compiler should carefully review the sectoral coverage as the ODC reports on the SRF include money market funds, which are outside of the deposit-taking corporation sector in the balance of payments and IIP.

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<sup>4</sup> Other depository corporations include deposit-taking corporations, except the central bank and money market funds.

<sup>5</sup> Other financial corporations include insurance corporations and pension funds, other financial intermediaries, and financial auxiliaries (*MFSM (2000)*, paragraph 96 and Box 3.1).

<sup>6</sup> For practical convenience, deposit-taking corporations, except the central bank are also referred to as banks throughout this chapter.

<sup>7</sup> Appendix 6, Part B discusses the use of data collected from ODC for the purpose of money and banking statistics in the balance of payments and IIP.

**Table 9.1. Summary Lines from SRF for Other Depository Corporations**

|    | <b>Assets</b>                                      | <b>Liabilities</b>                                 | <b>Comments</b>   |
|----|--|--|---|
| 1. | Foreign currency                                   | Currency in circulation                            | In general, commercial banks do not have currency liabilities, except in an economy where commercial banks issue banknotes. |
| 2. | Deposits - <i>nonresidents</i>                     | Deposits - <i>nonresidents</i>                     |   |
| 3. | Securities other than shares – <i>nonresidents</i> | Securities other than shares – <i>nonresidents</i> |   |
| 4. | <i>Loans - nonresidents</i>                        | <i>Loans -nonresidents</i>                         |   |
| 5. | Shares and other equities – <i>nonresidents</i>    | Shares and other equities – <i>nonresidents</i>    | Direct investment or portfolio investment - for both assets and liabilities (memorandum item for liabilities)               |
| 6. | Insurance technical reserves – <i>nonresidents</i> | Insurance technical reserves – <i>nonresidents</i> |   |
| 7. | Financial derivatives – <i>nonresidents</i>        | Financial derivatives – <i>nonresidents</i>        |   |
| 8. | Other accounts receivable – <i>nonresidents</i>    | Other accounts payable – <i>nonresidents</i>       |   |

9.15 Details on the reconciliation of positions of other depository corporations (except the central bank) vis-à-vis nonresidents with the relevant corresponding IIP components for deposit-taking corporations, except the central bank are presented in Appendix 6, Part B, Table A6.3. It shows that, although the sectoral balance sheet data can largely correspond with IIP components, the differences in the classification do not allow a full reconciliation of the two frameworks. For several items, additional information from the banks' balance sheets would be needed for the compiler to identify unequivocally the appropriate IIP components.

9.16 The main criterion for classifying asset and liability components in the IIP is the function of investment, that is, direct investment, portfolio investment, financial derivatives (other than reserves) and employee stock options, other investment, and reserve assets. The next levels of classification provide instrument, sector, and maturity breakdowns.

9.17 Sometimes the mapping of other depository corporations' items to the various components of the IIP is not straightforward. For example, external *assets* in the form of shares and other equity could be part of the bank's direct investment<sup>8</sup> in foreign corporations, or part of their portfolio investment in equity and investment fund shares of nonresident corporations. Also, the standard components of the balance sheet for other depository

<sup>8</sup> *BPM6* recommends that direct investment should be broken down to show the direct investment relationship as follows: (i) direct investor in direct investment enterprises; (ii) direct investment enterprises in direct investor (reverse investment); and (iii) between fellows. This breakdown is not available in monetary and financial statistics.

corporations do not identify shares and other equity *liabilities* at market value. These data are to be reported in *memorandum items*, but few countries report these items. To fill in the standard components of the IIP, additional data that show a further detailed breakdown by type of investment would be necessary.

9.18 Careful consideration should be given to the possibility of expanding banks' reporting requirements to accommodate the requirements for IIP statistics. Clearly, compiling agencies would want to avoid requesting similar information for different purposes from the same group of reporting entities. The agencies could therefore investigate whether it is possible to incorporate the requests for the IIP statistics in existing reporting forms for the deposit-taking corporations sector. For example, they could introduce some additional memorandum items or breakdowns of the data. They could do this without impeding the objectives of the banking statistics (for example, regarding the timeliness of the provision of the data). Since the compiler usually requests data for the IIP at a lower frequency than for monetary statistics, they could include such additional reporting requirements only at quarterly intervals.

9.19 Alternatively, the compiler could investigate whether they could possibly use approximations to attribute the positions reported in the banking statistics for specific instruments to the IIP components of the deposit-taking corporations sector. This approach could be considered appropriate if the compiler envisage a separate survey later for IIP statistics and consider the use of data from the banking statistics temporary. In that case, it might not be worthwhile to introduce additional reporting requirements into existing surveys. In the above-mentioned example, compiling agencies could investigate whether they could use other information, such as that collected for supervisory purposes, to determine the appropriate functional category of the IIP for shares and other equity assets and liabilities. (Banking supervision information usually encompasses information on capital ownership relationships.)

9.20 Apart from allocating shares and other equity positions to direct investment or portfolio investment, the additional detail required for IIP purposes concerns breakdowns for most debt instruments by long- and short-term original maturity. Such information should be available in banks' records, and the compiler could probably incorporate it in the reporting requirements for banks. If not directly available, the IIP data for the deposit-taking corporations sector could still be compiled aggregated without maturity detail.

9.21 If countries compile monetary and financial statistics using the IMF Statistics Department's *Standardized Report Form 4SR* for *Other Financial Corporations*, the compiler could also use this data source for the other financial corporations sector in the IIP; however, care should be taken because of the differences in coverage described in paragraph 9.12 above.

9.22 Appendix 6, Part B also discusses other issues in using monetary statistics for the compilation of an IIP, including valuation, coverage, and sector classification.

### **Central bank**

9.23 External assets of the central bank should include reserve assets and other external assets that do not meet the reserve asset criteria. The *BPM6* replaced the monetary authorities

institutional sector by central bank; it includes monetary authorities as a supplementary item. However, the *BPM6* keeps monetary authorities sector in connection to reserve assets. The *BPM6* paragraph 6.66 provides the following guidance:

*The functional concept of monetary authorities is essential for defining reserve assets. Monetary authorities encompass the central bank (which subsumes other institutional units included in the central bank subsector, such as the currency board) and certain operations usually attributed to the central bank but sometimes carried out by other government institutions or commercial banks, such as government-owned commercial banks. Such operations include the issuance of currency; maintenance and management of reserve assets, including those resulting from transactions with the IMF; and operation of exchange stabilization funds. In economies in which extensive reserve assets are held outside of the central bank, supplementary information should be provided on the institutional sector of holdings of those reserve assets.*

9.24 The reserve assets component of the IIP should be straightforward to compile, since data on the central bank's accounts should be readily available directly from the central bank. It should be borne in mind, however, that in instances where the monetary authorities include several institutional units or where certain transactions of other units need to be taken into account, then compiling the reserve assets component might be more complex.

9.25 The data should be easily accessible to the compiling institution, but it will entail greater coordination to gather the data from various sources and aggregate the figures consistently.<sup>9</sup>

9.26 The central bank should also be able to provide without difficulty, besides the official reserve assets, the information on their other external assets and their external liabilities (except liabilities in the form of notes and coins). Such assets may include claims on nonresidents in domestic currency and any other external assets that do not qualify as reserve assets (for example, because they are not readily available for balance of payments purposes). The compiler should allocate these foreign assets to the appropriate IIP components under portfolio investment, financial derivatives, or other investment.

9.27 External liabilities of monetary authorities may be in the form of debt securities, financial derivatives, loans, deposits, or other liabilities and should be recorded in the appropriate components of the IIP.

9.28 In practice, the above list of financial instruments may be shorter if, for example, reserve management policy or other provisions prohibit the central bank from investing in certain types of assets or incurring certain types of liabilities. The data for the central bank should be available on a timely basis, including for quarterly IIP compilation.

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<sup>9</sup> In order to cover the concept of monetary authorities, Table 9.4 includes both the central bank and government finance statistics as possible data sources for reserve assets.

9.29 Although it is preferable that the central bank directly provide the required data to the IIP compiler, the compiler can also use the Sectoral Balance Sheet for the Central Bank, as presented in the *MFSM*, as a reference. Summary lines from the *Standardized Report Form 1SR for the Central Banks* are shown in Table 9.2.

**Table 9.2. Central Bank: External Assets (Other Than Reserves) and Liabilities**

|    | <b>Assets</b>                                      | <b>Liabilities*</b>                                   | <b>Comments</b>   |
|----|--|---|---|
| 1. | Foreign currency                                   | Currency in circulation – <i>held by nonresidents</i> | Currency in circulation (liabilities): usually nonresidents' holdings of domestic currency are not separately identified in the central bank's balance sheet. |
| 2. | Deposits - <i>nonresidents</i>                     | Deposits - <i>nonresidents</i>                        |   |
| 3. | Securities other than shares – <i>nonresidents</i> | Securities other than shares – <i>nonresidents</i>    |   |
| 4. | Loans - <i>nonresidents</i>                        | Loans - <i>nonresidents</i>                           |   |
| 5. | Shares and other equities – <i>nonresidents</i>    |   |   |
| 6. | Insurance technical reserves – <i>nonresidents</i> |   |   |
| 7. | Financial derivatives – <i>nonresidents</i>        | Financial derivatives – <i>nonresidents</i>           |   |
| 8. | Other accounts receivable – <i>nonresidents</i>    | Other accounts payable – <i>nonresidents</i>          |   |
| 9. |  | SDR Allocations                                       |   |

\* The 1SR provides a maturity breakdown for foreign currency liabilities.

9.30 Table A6.4 in Appendix 6, Part B presents the reconciliation of positions of the central bank vis-à-vis nonresidents with the relevant corresponding IIP components.

### **General government**

9.31 Government finance statistics (GFS) covers the general government sector, the public nonfinancial corporations' sector, and the public financial corporations' sector. Details on the GFS framework as well as on linkages to external sector statistics are presented in Appendix 6, Part C. The appendix also describes the relationship between the balance of payments and IIP statistics and GFS.

9.32 Summary lines for government external assets and liabilities from the *Government Finance Statistics Manual* are shown in Table 9.3 below.

**Table 9.3. Government External Financial Assets and Liabilities\***

|    | <b>Assets</b>                | <b>Liabilities</b>           | <b>Comments</b>  |
|----|------------------------------|------------------------------|--|
|    | <b>Foreign</b>               | <b>Foreign</b>               |  |
| 1. | Currency and deposits        | Currency and deposits        |  |
| 2. | Securities other than shares | Securities other than shares |  |
| 3. | Loans                        | Loans                        |  |
| 4. | Shares and other equities    |                              | Liabilities for public corporations not included in <i>general government</i> in IIP |
| 5. | Insurance technical reserves | Insurance technical reserves |  |
| 6. | Financial derivatives        | Financial derivatives        |  |
| 7. | Other accounts receivable    | Other accounts payable       |  |

\**Government Finance Statistics Manual (GFSM)* Appendix 4, Table C. Classification of Flows and Stocks in Assets and Liabilities. In some countries GFS data in this table would include assets in Monetary gold and SDRs. These components should be included in the IIP under the concept of *monetary authorities* in reserve assets. SDR allocations are recorded in liabilities without a sector classification.

9.33 Although many economies have started to report selected financial assets for government financial statistics, few countries have full balance sheets. Since external assets of the general government can be substantial for some economies, the compiler may need to collect this information directly from the government. Methodological notes on the balance of payments and IIP for such an economy should note if there is a substantial lack of coverage for these assets.

9.34 Data on the external liabilities of the general government can have a significant impact on surveillance issues. With regard to debt liabilities (in particular, for debt securities and loans), many countries have a debt monitoring system in place to measure public external debt. This comprehensive data source can be used to collect information for these components of the IIP. The collection of data from the external debt compiling agency is presented in Chapter 6 under *Public Sector External Debt*. Chapter 6 also includes data sources for other debt liabilities, such as trade credit and advances on imports.

9.35 The external debt statement relates closely to the IIP. It is a subset of the liability component of the IIP and, as such, can largely be derived from the IIP. Liability components of the IIP that are *not* considered part of external debt include equity and investment fund share liabilities and financial derivatives and ESOs. Chapter 7 includes a discussion of *External Debt Statistics* including the *Quarterly External Debt Statistics (QEDS)* database and the *Joint External Debt Hub (JEDH)*.

### **Balance of payments—financial transactions**

9.36 The IIP and the balance of payments are closely interrelated; the integrated IIP statement presented in Table 7.1 of the *BPM6* shows how changes in the IIP result from financial account transactions and other changes in financial assets and liabilities. The balance of payments records both financial and nonfinancial transactions with nonresidents during the period in which they occur. The reconciliation statement illustrates the

relationship, explaining the change in IIP positions. It shows how changes that have occurred during the period are due to financial transactions, exchange rate changes, other price changes, and other changes in volume. The financial transactions that contributed to the change in positions are those transactions that are recorded in the financial account of the balance of payments.

9.37 The compiler may find it possible to use the information provided in the three preceding sections on existing domestic sources to estimate positions, including on a quarterly basis, for deposit-taking corporations, the central bank, and general government sector. However, in other cases, including for the nonfinancial private sector, information on positions at the beginning and end of the period may not be available, particularly on a quarterly basis. To examine how the compiler can use the financial transactions in the balance of payments to estimate a quarterly IIP, an example is presented in Part C.

9.38 If the volatility of exchange rates, other price changes, and changes in volume during a given period and if the volume of transactions is high,<sup>10</sup> it is important to estimate positions based on more detailed information to assure adequate quality estimates. There is thus clearly a need to undertake position surveys from time to time (preferably annually), both to help ensure the quality of position data and to help check on the reported transactions data.

## (ii) Nonstatistical sources

9.39 The nonstatistical domestic sources to be discussed are financial statements of enterprises, approvals of foreign investment, and the financial press. In each case the compiler should check that the definitions used in these sources are consistent with *BPM6*.

### Financial statements of enterprises

9.40 Financial statement of enterprises can provide useful information in estimating such IIP items as direct investment, portfolio investment, and other investment (loans, trade credit and advances, currency and deposits, and other accounts receivable/payable). The following paragraphs cover the use of financial statement data in compiling positions on direct investment positions (assets and liabilities). This data source is particularly useful if the compiler does not yet carry out enterprise surveys.

9.41 The key to determining the usefulness of this data source is the level of consolidation of the financial statements—whether they are consolidated or unconsolidated. The source of the financial statements—publicly available or accessible to the compiler through official channels—largely determines the level of consolidation available.

9.42 The most useful financial statements for deriving direct investment are the books of the DIENT. When the DIENT is in the reporting economy, the process of estimating direct investment from financial statements is straightforward. When the DIENT is not in the

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<sup>10</sup> The effects on the accuracy of stock estimates derived from flow data (and of flow estimates derived from stock data) are analyzed and discussed in more detail in *Effects of Volatile Asset Prices on Balance of Payments and International Investment Position Data*, Marco Committeri, IMF Working Paper No. 00/191.

reporting economy, using financial statements to estimate direct investment is more complex. In this case, if the only set of financial statements available is the consolidated statement of the resident direct investor, the balance sheet may not provide enough information to calculate direct investment asset positions. However, the notes to the financial statements may yield some useful information on equity ownership in nonresident DIENTs.

9.43 The financial statement can be a potential source of information for the DIENT located abroad when the resident direct investor has just acquired an existing company abroad. If the financial statements of the acquired enterprise are publicly available, or if the acquisition price is known, the compiler may be able to estimate the initial value of direct investment assets.

9.44 The compiler may have access to the data sources through official channels and these sources may provide the unconsolidated financial statements of the resident direct investor. If this is the case, the asset side of the balance sheet may provide information on the *investment in foreign affiliates* (equity) and *loans to foreign affiliates* (debt instruments). The liability side may provide information on *loans from a foreign affiliate*<sup>11</sup> (debt instruments). The source can also provide information on resident DIENTs such as *investment of direct/portfolio investors in equity, loans from the direct investors* (on liability side), as well as *loans to direct investors* (assets side).

### **Publicly available data sources**

9.45 Generally, publicly available sources exist for publicly traded companies in an annual report, available in print format or on the Internet. Annual reports contain balance sheet items that can be used to estimate direct investment in an enterprise. Financial statements that are publicly available are usually consolidated.<sup>12</sup>

9.46 The following example shows how the compiler can estimate direct investment equity liabilities from this source. If the nonresident direct investor owns 100 percent of the resident enterprise,<sup>13</sup> the compiler may be able to estimate direct investment from the Shareholders' Equity portion of the balance sheet, which may include: (a) paid-up capital (excluding any shares on issue that the enterprise holds in itself and including share premium accounts); (b) all types of reserves identified as equity in the enterprise's balance sheet (including investment grants when accounting guidelines consider them company reserves); (c) cumulated reinvested earnings; and (d) holding gains or losses included in own funds in the accounts, whether as revaluation reserves or profits or losses. The more frequent the

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<sup>11</sup> Reverse investment.

<sup>12</sup> This means that intercompany transactions have been eliminated. A note describing this limitation needs to be included in the methodology documentation.

<sup>13</sup> If the nonresident direct investor owns less than 100 percent, e.g., x percent of the resident enterprise, then only x percent of the value would be included in the direct investment estimate.

revaluation of assets and liabilities, the closer the approximation to market values.<sup>14</sup> Shareholders' equity is generally included at the bottom of the liabilities section of balance sheets.

### **Data source available through official channels**

9.47 Internal sources available within official agencies may also contain financial statement information. Some compiling agencies collect—for their national financial statistics—the financial statement information for foreign owned enterprises. Depending on the rules for data sharing that govern the compiling agency, it may be possible for the compiler to access information on the shareholders' equity of the foreign-owned enterprise from this source.

9.48 Data may also be available from other official agencies outside the compiling agency. Once again, access to this information would depend on data sharing agreements between the institutions.

9.49 If unconsolidated financial statements are available, the compiler could possibly estimate debt instruments in the form of intercompany debt. For direct investment liabilities, *Loans from parent*<sup>15</sup> are found in the liability section of the balance sheet, and for direct investment assets, *Loans to parent* are found in the asset section.

9.50 Loans to/from fellow enterprises may be recorded separately in the financial statements but most likely they will be included indistinguishably under loans to/from affiliated enterprises (if the resident enterprise has any equity participation in the nonresident fellow and vice versa) or in loans to / from unaffiliated enterprises (if the fellows do not have any equity participation in each other). For unconsolidated balance sheets, the intercompany debt may be shown as in Table 9.4 below:

**Table 9.4. Unconsolidated Balance Sheet**

| <b>Assets</b>  | <b>Liabilities</b>   |
|--|--|
| Loans to affiliated enterprises, which include:      | Loans from affiliated enterprises, which include:                    |
| <i>Loans to direct investor (reverse investment)</i> | <i>Loans from direct investor</i>                                    |
| <i>Loans to direct investment enterprises</i>        | <i>Loans from direct investment enterprises (reverse investment)</i> |
| <i>Loans to fellows</i>                              | <i>Loans from fellows</i>  |

9.51 When using financial statements to estimate direct investment, the compiler should note that most balance sheets reflect book value or historical cost. In principle, *BPM6* requires that all external assets and liabilities be measured at current market prices. When

<sup>14</sup> When market value is not available, own funds at book value is an acceptable proxy for market value (*BPM6*, paragraph 7.16 (e)).

<sup>15</sup> The parent referred to in the financial statement would be the direct investor.

actual market values are not available, for example for untraded equity, an estimate is required. Alternative methods of approximating market value of shareholders' equity in a direct investment enterprise (DIENT) are described in paragraph 7.16, *BPM6*. The described methods are not ranked according to preference; the compiler would need to assess each of them according to the circumstances and the plausibility of results. However, the Coordinated Direct Investment Survey (CDIS) requests data on unlisted equities to be valued using the "own funds at book value" (OFBV). OFBV values unlisted equity using financial accounting rules in which are included (i) an enterprise's cumulative reinvested earnings (ii) accumulated depreciation on plant and equipment; and (iii) most financial instruments held by the enterprise are valued at market or fair values. Appendix 4 discusses the valuation of direct investment in more detail.

9.52 Although financial statements may provide an early source for estimating direct investment and other IIP items, clearly the compiler needs to develop a more complete source, such as enterprise surveys. Once a survey system is in place, the compiler is encouraged to request copies of the financial statements of the DIENT from the reporters. These statements can be used to verify figures reported on the survey or to ascertain other information, such as realized or unrealized capital gains and losses and write-offs.

9.53 As mentioned earlier, in addition to shareholders' equity and intercompany debt, financial statements may also provide information on investments in securities (portfolio investment) or indebtedness not in the form of securities to third parties (other investment); however the additional information required to distinguish which of these assets/liabilities are with nonresidents may not be available in standard financial statements. The compiler may wish to consult the "Notes to the Financial Statements", which could contain supplementary information that could be used as a data source or to verify IIP data—for example, a list of major acquisitions.

9.54 The IIP components that could use the financial statements as a data source are identified in Table 9.5 by the acronym FS.

### **Approvals/licensing of foreign investment**

9.55 As was mentioned in paragraph 9.5, the data sources available in a specific economy will depend partly on the regulatory framework for international transactions. In some circumstances, international capital movements are restricted. That is, external borrowing or investment is not allowed for specific institutional units, or approval is required by an official body for external transactions. In this case, a good source of information for IIP (and balance of payments) compilation is the administrative records of the agency in charge of such foreign exchange controls.

9.56 However, this kind of data often has significant shortcomings because approval procedures are usually not set up with macroeconomic statistical requirements in mind. For example, it may be an *intended* investment (the approved investment may not actually take place), or significant time lags between approvals and actual investments may occur. The implementation of the approved investment may take place over several years. It would be necessary to determine the duration of the project and the amount expected to be spent each year.

9.57 Thus, the information on approvals can be rather limited regarding the range of information that is needed for IIP purposes. For example, the approvals of direct investment in an economy might capture information on new direct investment relationships—the acquisition of equity capital—but might not capture particular items such as intercompany debt positions, collected for the “debt instruments” component of direct investment. This source is best used to identify the potential new investment, and the compiler would need other sources such as financial statements and enterprise surveys to confirm that the foreign investment occurred and to estimate its value.

9.58 In some countries the agency that licenses foreign direct investment may require the foreign investors of the DIENTs to provide them with all required financial information, including for statistical purposes, on an ongoing basis. This could be a valuable source of data.

9.59 The IIP components that could use approvals/licensing data as a data source are identified in Table 9.5 by the acronym AP.

### **Financial press**

9.60 The financial and economic press provides an excellent timely source of information for identifying large transactions that could have international implications, particularly for new investments or mergers and acquisitions for direct investment. The financial press may provide information on the names of the resident and nonresident enterprises, the economy with which the transaction occurred, and the size of the transaction. If the resident enterprise involved is already surveyed by a questionnaire, the information could be validated against that questionnaire, and if necessary the enterprise could be contacted to discuss the transaction. Enterprises that are not surveyed need to be contacted for details of the transaction, including closing date, amounts involved, and methods of financing. The enterprise would then be added to the list of enterprises surveyed. For some economies, this timely data source can account for a significant amount of the preliminary estimates of direct investment. However caution should be exercised, because information in the press on the timing and size of investment is often inaccurate.

9.61 The IIP components that could use the financial press as a data source are identified in Table 9.5 by the acronym FP.

## **B2. Foreign Data Sources**

9.62 The previous section described domestic data sources that are commonly available for compilation purposes. This section describes the use of data sources available from international organizations and partner countries to close some gaps in the data collection for the IIP. The data sources are international banking statistics, security-by-security data collection system, the CPIS, CDIS, partner country data, Quarterly External Debt Statistics, and the Joint External Debt Hub. These datasets are described in Chapter 7 of the *Guide*.

### **International banking statistics**

9.63 The international banking statistics that are collected and disseminated by the BIS are published in the *BIS Quarterly Review* and made available on the BIS website.

9.64 Certain of these datasets, for example locational data, can be relevant to the IIP compilation. The locational banking statistics provide quarterly debtor/creditor information on loans and deposits on banks and nonbanks by economy using balance of payments concepts. In some countries, the compiler uses the data on loans and deposits in relation to nonbanks (*BIS Quarterly Review*, International Banking Statistics, Table 7B External loans and deposits of reporting banks vis-à-vis individual countries, vis-à-vis the non-bank sector) to supplement other balance of payments and IIP data sources. The data provide information on nonbanks<sup>16</sup> claims and liabilities with nonresident banks and serve to compile part of the other sectors components of other investment assets and liabilities. Specifically, the table shows amounts outstanding and estimated exchange-rate-adjusted changes of external loans and deposits of reporting banks concerning the nonbank sector and individual countries. Also, the compiler can use Table 8A from the *BIS Quarterly Review* that shows simultaneously a bank's location, its nationality, the location of its counterparty, and the currency and type of claim, specified for banks and nonbanks.<sup>17</sup>

9.65 The most common BIS locational IIP data used by the compiler are the outstanding amounts of deposits of nonbanks because reliable national data sources are often nonexistent.<sup>18</sup> The BIS data can be used to compile the position on other sectors assets in the form of deposits and the outstanding amounts of loans for their economy to compile the other sectors liabilities in loans.<sup>19</sup> Similarly, the compiler can use the relevant estimated exchange-rate-adjusted changes of deposits and loans (transactions) in the balance of payments. However, the BIS data do not provide a breakdown by short- and long-term maturity of the loans.

9.66 It needs to be emphasized that the information from the BIS statistics is *partial* regarding the coverage of these IIP components, since it includes only the positions of countries participating in the BIS international banking statistics.<sup>20</sup>

9.67 Although the international banking statistics also provide counterpart economy information on loans and deposits vis-à-vis banks, the compiler usually does not use these data, since national statistics generally provide more comprehensive information on such positions. The data may be used to cross check national sources.

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<sup>16</sup>Nonbanks include other sectors—other financial corporations, nonfinancial corporations, households, and NPISHs—as well as the general government sector. If another data source is used to compile data for the government sector, the compiler needs to take this into account to avoid double counting.

<sup>17</sup> Starting with data for Q2 2012, a vis-à-vis country dimension was added in the nationality statistics (Table 8A) so as to see a more granular geography of banks' assets and liabilities.

<sup>18</sup>Enterprise surveys or household surveys may attempt to collect information on deposits abroad of nonbanks.

<sup>19</sup>If countries maintain an external debt register, the external loans of nonbanks could be included in the register. In this case, the BIS data could be used to verify the national data source.

<sup>20</sup>As of March 2013, 44 countries, including major banking centers, report these data to the BIS.

9.68 Tables 14A and 14B (*BIS Quarterly Review*, Security Statistics<sup>21</sup>) can provide some information on an economy's liabilities related to issuing international securities. It should be mentioned that since this source reports only issued securities (international securities issued abroad, and domestic market issues (the latter for countries that report domestic issues to the BIS)), data on holdings are not available. Therefore, the compiler should be cautious when using these data for IIP (and balance of payments) purposes.

9.69 For quarterly IIP compilation, the statistical release of the provisional quarterly BIS data would not provide the compiler with quarterly IIP data in time to meet standard quarterly timeliness requirements. However, the BIS data could be used to revise estimated data for the previous quarter.

9.70 The IIP components that could use BIS data as a data source are identified in Table 9.5 by the acronym BIS.

## **Other data sources**

### ***Security-by-security data collection system on tradable securities***

9.71 For countries that use a security-by-security data collection system to compile portfolio investment in the IIP, these data should be available with a high frequency and could be used for IIP compilation, including for quarterly IIP. Typically, the information is obtained from resident custodians and from resident end-investors. The resident custodians report positions in securities with nonresidents for their own account and on behalf of other residents. More information on the security-by-security database is available in Chapter 7.

9.72 The IIP components that could use a security-by-security data collection system as a data source are identified in Table 9.4 by the acronym SBS. More details on security-by-security databases are presented in Chapter 10, paragraphs 10.43-10.45.

### ***Registers of external loans***

9.73 Some compilers use registers of external loans to obtain data on loans received or extended by the nonbank sector. These data, often collected for exchange control purposes, allow monitoring of both loans to/from nonresidents and, in some cases, nonmarketable securities issued to nonresidents. If the exchange control is abolished, the administrative documents and arrangements created for that purpose might be adaptable for statistical purposes. The figures obtained from this source usually cover both loans between related companies (parent companies and affiliates) and between unrelated companies.

9.74 The IIP components that could use registers of external loans as a data source are identified in Table 9.5 by the acronym RL.

9.75 Other data sources for the IIP are discussed in Chapter 7—the CPIS, the CDIS, and partner country data. Data reported to the World Bank for the Quarterly External Debt

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<sup>21</sup> International debt securities by country of residence—Table 14A, Money market instruments. Also, Table 14B, Bonds and notes.

Statistics database (QEDS) and the Joint External Debt Hub (JEDH) should be fully consistent with IIP data on debt liabilities and usually are derived from the IIP. However, if external debt statistics are compiled and reported to the World Bank not by the institution in charge of balance of payments/IIP compilation, the QEDS and/or JEDS data can be used for cross-checking purpose.

9.76 It is evident that the data sources outlined so far will not comprehensively cover the data required for compiling IIP statistics. Most commonly, data gaps will occur for external positions of the private nonbank sectors (other financial corporations, nonfinancial corporations, households and NPISHs<sup>22</sup>).

9.77 The compiler may find it difficult to collect data on households' external assets and liabilities through household surveys, since underreporting and nonresponse in such surveys are likely to be substantial (especially on the assets side). In most countries, the compiler will need to collect these data by surveying financial intermediaries and custodians (for example, for portfolio investment) or by using international data sources as outlined above.

9.78 To close gaps in the collection of enterprise data, usually countries will develop surveys on enterprises' external financial assets and liabilities. When designing a survey system—for enterprise surveys or portfolio investment surveys—the compiler has to consider the various other data sources that he/she intends to use, to avoid duplication or omission in the overall compilation system. Chapter 3 discusses enterprises surveys.

9.79 The IIP components that could use surveys as a data source are identified in Table 9.5 by the acronym SUR.

### **B3. Summary Table of Possible Data Sources**

9.80 The compiler can determine whether the data sources presented above are consistent with the IIP requirements for his/her economy. Even after an economy has developed a more comprehensive data collection system for compiling the IIP, the data sources described here can still prove useful for cross-checking purposes. Table 9.4 summarizes the possible data sources by the main IIP components.

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<sup>22</sup> Nonprofit institutions serving households.

**Table 9.5. Possible Data Sources for Compiling an IIP Statement**

|   | Possible data sources                                      |  |
|---|--|--|
|   | Assets   | Liabilities  |
| <b>Direct investment</b>  |  |  |
| <i>Equity and investment funds shares</i>                                     | SUR/FS/AP/FP/CDIS  | SUR/FS/AP/FP/CDIS  |
| <i>Debt instruments</i>   | SUR/FS/FP/RL/CDIS  | SUR/FS/FP/EDS/RL/CDIS  |
| <b>Portfolio investment</b>   |  |  |
| <i>Equity and investment fund shares</i>                                      | CPIS<br>CB<br>DTC/SBS<br>GFS/SBS                           | CPIS<br>n.a.<br>DTC/SBS<br>n.a.  |
| Central Bank  |  |  |
| Deposit-taking corporations, except the central bank                          |  |  |
| General government  |  |  |
| Other sectors   |  |  |
| Other financial corporations  |  |  |
| Nonfinancial corporations, households, and NPISHs                             | SBS/SUR/OFC<br>SBS/SUR<br>CPIS<br>CB<br>DTC/SBS<br>GFS/SBS | SBS/SUR/OFC<br>SBS/SUR<br>CPIS<br>CB/EDS<br>DTC/SBS/EDS<br>GFS/SBS/EDS |
| <i>Debt securities</i>  |  |  |
| Central Bank  |  |  |
| Deposit-taking corporations, except the central bank                          |  |  |
| General government  |  |  |
| Other sectors   |  |  |
| Other financial corporations  |  |  |
| Nonfinancial corporations, households, and NPISHs                             | SBS/SUR/OFC<br>SBS/SUR                                     | SBS/SUR/EDS/OFC<br>SBS/SUR/EDS   |
| <b>Financial derivatives (other than reserves) and employee stock options</b> | SUR/DTC/CB/OFC   | SUR/DTC/CB/OFC   |
| <b>Other investment</b>   |  |  |
| <i>Other equity</i>   | SUR/DTC/CB/OFC   | SUR/DTC/CB/OFC   |
| <i>Currency and deposits</i>  |  |  |
| Central Bank  |  |  |
| Deposit-taking corporations, except the central bank                          | CB<br>DTC<br>GFS   | CB/EDS<br>DTC/EDS<br>GFS/EDS   |
| General government  |  |  |
| Other sectors   |  |  |
| Other financial corporations  |  |  |
| Nonfinancial corporations, households, and NPISHs                             | SUR/BIS/OFC<br>SUR/BIS                                     | SUR/EDS/OFC<br>n.a.  |
| <i>Loans</i>  |  |  |
| Central Bank  |  |  |
| Deposit-taking corporations, except the central bank                          | CB<br>DTC<br>GFS   | CB/EDS<br>DTC/EDS<br>GFS/EDS   |
| General government  |  |  |
| Other sectors   |  |  |
| Other financial corporations  |  |  |
| Nonfinancial corporations, households, and NPISHs                             | SUR/RL/OFC<br>SUR/RL                                       | SUR/EDS/RL/BIS/OFC<br>SUR/EDS/RL/BIS                                   |
| <i>Insurance, pension, and standardized guarantee schemes</i>                 |  |  |
| Central Bank  |  |  |
| Deposit-taking corporations, except the central bank                          | CB<br>DTC<br>GFS   | CB/EDS<br>DTC/EDS<br>GFS/EDS   |
| General government  |  |  |
| Other sectors   |  |  |
| Other financial corporations  |  |  |
| Nonfinancial corporations, households, and NPISHs                             | SUR/OFC<br>SUR   | SUR/EDS/OFC<br>SUR/EDS   |
| <i>Trade credit and advances</i>  |  |  |
| Central Bank  |  |  |
| General government  | CB<br>GFS<br>DTC   | CB/EDS<br>GFS/EDS<br>DTC/EDS   |
| Deposit-taking corporations, except the central bank                          |  |  |
| Other sectors   |  |  |
| Other financial corporations  |  |  |
| Nonfinancial corporations, households, and NPISHs                             | SUR/RL/OFC<br>SUR/RL                                       | SUR/EDS/RL/OFC<br>SUR/EDS/RL   |
| <i>Other accounts receivable/payable-other</i>                                |  |  |
| Central Bank  |  |  |
| Deposit-taking corporations, except the central bank                          | CB<br>DTC<br>GFS   | CB/EDS<br>DTC/EDS<br>GFS/EDS   |
| General government  |  |  |
| Other sectors   |  |  |
| Other financial corporations  |  |  |
| Nonfinancial corporations, households, and NPISHs                             | SUR/OFC<br>SUR<br>n.a.                                     | SUR/EDS/OFC<br>SUR/EDS<br>CB/EDS                                       |
| <i>Special drawing rights (allocations)</i>                                   |  |  |
| <b>Reserve assets</b>   | CB/GFS   | n.a.   |
| <b>Total assets/liabilities</b>   |  |  |

n.a. = Not applicable.

NPISHs = Nonprofit institutions serving households

Source: *BPM6*, Appendix 9, IIP, pages 309-312

DTC Deposit-taking corporations, except central bank  
CB Central Bank  
OFC Other Financial Corporations  
GFS Government Finance Statistics  
BIS Bank for International Settlements  
EDS External Debt Statistics  
SBS Security-by-security Database

CPK Coordinated Portfolio Investment Survey  
CDI Coordinated Direct Investment Survey  
SUF Surveys  
AP Approvals/Licensing of Foreign Investment  
FP Financial Press  
FS Financial Statements  
RL Register of External Loans

### C. Deriving Quarterly Positions from Quarterly Transactions

9.81 This Part examines how to derive quarterly positions data from quarterly transactions data as presented in the *IIP Guide*.<sup>23</sup> For countries that compile annual IIP data, the same strategy could be used with annual position data and annual balance of payments data.

9.82 For those cases where there are no quarterly position data sources and where quarterly position surveys are not feasible, the compiler may consider deriving quarterly IIP stock data from transactions data in the financial account of the balance of payments, assuming quarterly balance of payments transactions are available in appropriate detail.<sup>24</sup> A detailed discussion can be found in the *EDSG*, Chapter 12.

9.83 However, the use of accumulated transactions to estimate positions is a weak basis for estimating IIP, because errors can be easily introduced and, consequently, they tend to be retained in the estimates only until a survey of positions data can be undertaken.<sup>25</sup>

9.84 In principle, the value of a position at the end of a period is equal to the value of the position at the beginning of the period plus:

- Transactions;
- Other changes in volume;
- Exchange rate changes; and
- Other price changes.

9.85 The following example illustrates how transactions data can be used to derive quarterly position data. The example assumes that position data are available on an annual basis; therefore position data for the beginning of the period would be available. If information on currency composition is available, other assumptions become easier to make—for example, if information on the currency composition is known, the impact of changes in exchange rates can be calculated and other price changes can also be calculated. Changes in stock or bond price indexes (which will include the impact of changes in economic outlook and market interest rates) can be used to calculate other price changes. In the example, amounts in bold reflect source data available to the IIP compiler.

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<sup>23</sup> Available in six languages at <http://www.imf.org/external/np/sta/iip/2011/030111.htm>.

<sup>24</sup> SDDS subscribers are required to disseminate quarterly balance of payments data and quarterly IIP. For some components, balance of payments transactions may not be available on a quarterly basis or there may be a lag that does not meet the timeliness needs of quarterly IIP compilation. In this case, the guidance provided in the Part on Carry forward would apply.

<sup>25</sup> For specific items, like financial derivatives, quarterly stocks should not be derived from quarterly balance of payments transactions. See the *IIP Guide*, Frequently Asked Questions #5 (page 28) for further discussion.

*Example*<sup>26</sup>

Estimation of quarterly stock data using transactions, exchange rate changes, and price changes:

Direct investment asset – equity (traded)

Assumptions:

The currency composition of position and transaction data is available denominated in foreign currency (US\$) and reported in domestic currency.

The stock market price at end of period and average stock market price are available.

No other changes in volume.

Position at December 31, 2011 in domestic currency: 1,000

Transactions during 2011 in dc: Q1 = 150, Q2 = 50, Q3 = -100, and Q4 = 200.

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<sup>26</sup> More examples are available in the *IIP Guide*.

| Example  | 2011Q4         | 2012Q1       | 2012Q2       | 2012Q3        | 2012Q4       |
|--|----------------|--------------|--------------|---------------|--------------|
| Data source: Denominated in foreign currency (US\$) and reported in domestic currency  |                |              |              |               |              |
| (A) Yearend position in domestic currency  | <b>1,000.0</b> |              |              |               |              |
| (a) Transactions in domestic currency  |                | <b>150.0</b> | <b>50.0</b>  | <b>-100.0</b> | <b>200.0</b> |
| Step 1: Revaluation of transactions for effect of changes in prices  |                |              |              |               |              |
| (b) Average stock market prices during the quarter   |                | <b>1.066</b> | <b>1.070</b> | <b>1.055</b>  | <b>1.040</b> |
| (c) Stock market price at end of quarter   | <b>1.100</b>   | <b>1.045</b> | <b>1.068</b> | <b>1.025</b>  | <b>1.033</b> |
| (d) Estimated value of transactions (that occurred during the quarter) in terms of their prices at end of quarter position = (a) * [(c)/(b)]         |                | 147.0        | 49.9         | -97.2         | 198.7        |
| (e) Price changes reflecting revaluation of transactions = (d) - (a)   |                | -3.0         | -0.1         | 2.8           | -1.3         |
| Step 2: Revaluation of transactions for effect of changes in exchange rates  |                |              |              |               |              |
| (f) Average exchange rate (units of domestic currency to US\$)   |                | <b>12.0</b>  | <b>12.5</b>  | <b>14.5</b>   | <b>15.5</b>  |
| (g) Exchange rate at end of quarter  | <b>10.0</b>    | <b>14.0</b>  | <b>11.5</b>  | <b>11.0</b>   | <b>14.0</b>  |
| (h) Estimated value of transactions (that occurred during the quarter) in terms of their exchange rates at end of quarter position = (d) * [(g)/(f)] |                | 171.6        | 45.9         | -73.7         | 179.4        |
| (i) Exchange rate gains or losses due to revaluation of transactions = (h) - (d)   |                | 24.5         | -4.0         | 23.5          | -19.2        |

| Step 3: Revaluation of opening positions for effect of changes in prices                                  |                |         |         |         |  |
|---|----------------|---------|---------|---------|--|
| (j) Opening positions in domestic currency =<br>Q1 = (A) for t-1<br>Q2 thru Q4 = line (q) for t-1         | <b>1,000.0</b> | 1,501.6 | 1,306.5 | 1,125.7 |  |
| (k) Opening positions revalued using stock market price<br>at end of quarter =<br>(j)*[(c) / (c for t-1)] | 950.0          | 1,534.6 | 1,253.9 | 1,134.4 |  |
| (l) Price changes reflecting revaluation of opening<br>positions (k) – (j)                                | -50.0          | 33.0    | -52.6   | 8.8     |  |
| Step 4: Revaluation of opening positions for effect of changes in exchange rates                          |                |         |         |         |  |
| (m) Opening positions revalued using end of quarter<br>exchange rate<br>= (k) * [(g) / (g for t-1)]       | 1,330.0        | 1,260.6 | 1,199.4 | 1,443.8 |  |
| (n) Exchange rate gains or losses due to revaluation of<br>opening positions =<br>(m) – (k)               | 380.0          | -274.0  | -54.5   | 309.4   |  |
| (o) Other price changes, total<br>= (e) + (l)   | -53.0          | 33.0    | -49.8   | 7.4     |  |
| (p) Exchange rate gains or losses, total<br>= (i) + (n)   | 404.5          | -278.0  | -31.1   | 290.2   |  |
| (q) Quarterly estimated positions in domestic currency<br>= (h) + (m) or (a) + (j) + (o) + (p)            | 1,501.6        | 1,306.5 | 1,125.7 | 1,623.3 |  |

Note: Totals may not equal sum of components due to rounding.

9.86 The results are an approximation of the actual stock position partly because the calculations for converting transactions into end positions use the *average* exchange rate during the period instead of the actual exchange rate in effect at the time of each transaction. When using average rates, the shorter the reference period the better.

9.87 In the absence of data on the currency composition, the compiler could:

- Match the *trade-weighted exchange rate* to a *financial instrument-weighted exchange rate* by conducting a simple enquiry with some of the more important economic agents, in order to calculate a correlation between the two exchange rates. The *calibrated* trade-weighted exchange rate would then be applied to the respective financial instrument. This enquiry could be reviewed every year or so, if no currency composition is available to the compiler. If it is not possible to calculate a calibrated trade-weighted exchange rate, the compiler could assume that all instruments

denominated in foreign currency are in the same currency. This “currency” could be the known dominant currency in the economy’s financial transactions, such as the U.S. dollar, the euro, the Japanese yen, or the pound sterling. However, this could lead to a biased estimate of exchange-rate effects and consequently of stocks.

- In the absence of data on the currency composition for every domestic sector or functional category, the compiler might be able to use the currency composition of one sector, such as banks, as a proxy for other sectors. This could only be done if there is evidence that there is some similarity between the currency composition of banks and the other sectors, or if external positions of nonbanks are believed to be small. In order to determine this, a comparison could be made for a period when the currency composition for all sectors is available. This methodology should be used only until new information is available as it could introduce errors.

9.88 When actual market values are not available, for example for untraded equity, information on book value can be collected from enterprises, and then adjusted as necessary. As noted earlier, OFBV is an accepted proxy for market value. If information on OFBV is not available to the compiler, then ratios based on suitable price indicators, such as the ratio of market capitalization<sup>27</sup> to book value for listed companies in the same economy with similar industrial activity could be used as a proxy until other source data are available.

9.89 In terms of data quality, these equations can serve to cross-check or verify transactions or positions data. For example, if the beginning and end position data are available as well as the currency composition and the relevant price index, then the transactions data reported in the balance of payments can be cross-checked. Potential errors and omissions in the balance of payments may be identified through this exercise.

### **Carry forward**

9.90 In the absence of quarterly transactions data or any reliable quarterly position data estimate for any individual item, the most recent position figure could be carried forward (i.e., use the same position figure) until other source data are available. For example, for trade credit liabilities denominated in domestic currency, if transaction data are only available on an annual basis, the position data at the beginning of the period could be carried forward each quarter until the annual transactions data are available. This method could be utilized for quarterly position estimates that are relatively small. Quarterly statistics would have to be revised when the annual data are introduced. For any significant positions, the compiler should use some methods (such as outreach to the largest enterprises or custodians) to determine the direction and the relative size of the change in positions, and to adjust its carry forward estimate accordingly.

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<sup>27</sup> See *BPM6*, paragraph 7.16 (d).

## **D. Other Changes in Financial Assets and Liabilities Account**

9.91 In the international accounts, the other changes in financial assets and liabilities account shows changes in financial positions that arise for reasons other than transactions between residents and nonresidents. These changes are also called other flows. There are two broad categories in this account—other changes in volume and revaluations (consisting of *exchange rate changes* and *other price changes*).

### **D1. Revaluations**

9.92 Revaluations occur because of a change in the monetary value of a financial assets or liability due to changes in the level and structure of its price. Revaluations may also be called holding gains or losses. Revaluation takes into account all price changes during the period, whether realized or not. Holding gains and losses are *realized* when the asset is sold or liability extinguished. Holding gains and losses on unsold assets and unpaid liabilities are *unrealized*, but are recorded as revaluations. Also, changes in technical reserves resulting from holding gains or losses are not transactions and therefore are recorded in the revaluation account. The example presented in Part C above includes techniques for calculating exchange rate changes and other price changes. More examples can be found in the *IIP Guide*.

### **Debt reorganization**

9.93 A debtor and creditor may change the terms of a debt agreement. The terms may be changed such that the value of the new claim differs from the value of the old claim. In commercial situations, differences in values between old and new claims are generally treated as a valuation change. Information about the agreement may be available from the books of the debtor or creditor. If the terms of the agreement are publicly available, this could also be useful for understanding the nature of the agreement.

### **Financial derivatives and employee stock options**

9.94 The exchanges of claims and obligations at the inception of a derivative contract are financial transactions creating asset and liability positions that normally have, at inception, zero value if the instrument is a forward-type contract and value equal to the total premium payable if the instrument is an option. Changes in the value of derivatives due to change in the underlying item are recorded as revaluation. The compiler generally collects position data on financial derivatives through survey of entities involved in the financial derivatives trading. Data sources for financial derivatives transactions and positions are described in Chapter 10; for recording of forward contracts in balance of payments and IIP, see Box 10.5 in the same chapter.

### **Implications of different treatments of retained earnings**

9.95 For direct investors' equity in their DIENTs and for investment fund shares, retained earnings are imputed as being payable to the owners and reinvested as an increase in their equity. In cases of equity under portfolio or other investment, no imputation of income being payable to the owners and of consequent financial account transactions as result of

reinvestment of earnings is recorded. However, the increase in the value of portfolio and other investment equity caused by the accumulation of retained earnings is reflected as revaluation. Data sources for retained earnings for portfolio investment could be the same as for direct investment (described in Chapter 10) if they provide also for the collection of data on portfolio investment. Data sources for other investment equity are limited (e.g., administrative records) and the values involved may not be significant.

### **Implications of trading of instruments that are recorded at nominal values in positions**

9.96 Nominal valuation is used for positions in nonnegotiable instruments, namely loans, deposits, and other accounts receivable/payable. However, when transactions in these instruments do occur, they are valued at market prices, with transaction prices often being less than the nominal values, because the market price takes account of the possibility of default. To account for the inconsistency between the market valuation of transactions and nominal valuation of positions, the seller records other price changes during the period in which the sale occurs, equal to the difference between the nominal and the transaction value. The buyer records an opposite amount as other price changes. Information on such transactions may be available from a debt database or register maintained by authorities or from the books of the creditor/debtor.

### **Implications of treatment of interest**

9.97 Any indexation amounts not included in interest are classified as revaluation. Information may be available from the books of the debtor/creditor.

## **D2. Other Changes in the Volume of Financial Assets and Liabilities**

9.98 Other changes in the volume of financial assets and liabilities are any changes in the value of these assets that are due neither to transactions nor to revaluation. Most of these changes are not common or reoccurring therefore establishing data sources may be challenging. However, if the value is significant, efforts should be made to establish a data source. The four most common examples of other changes in volume of financial assets and liabilities are listed in Table 9.6 below.

**Table 9.6. Examples of Other Changes in the Volume of Financial Assets and Liabilities**

|    |  |
|----|--|
| 1. | Cancellation and write-offs  |
| 2. | Reclassifications  |
|    | a) Tradable loans<br>b) Change in contractual terms<br>c) Transactions in existing assets<br>d) Changes in functional category<br>e) Monetization and demonetization of gold bullion<br>f) Reclassification of unallocated gold accounts |
| 3. | Financial assets and liabilities of persons and other entities changing residence  |
| 4. | Changes in insurance reserves, pension entitlements, and provisions for standardized guarantee schemes   |

### **Cancellation and write-offs**

9.99 This occurs when there is a reduction or cancellation of liabilities by other than normal repayment. For example, a creditor may recognize that a financial claim can no longer be collected because of bankruptcy or other factors and the creditor may remove the claim from its balance sheet. This recognition (by the creditor) should be accounted for as other changes in volume of assets. The corresponding liability should also be removed from the balance sheet of the debtor.<sup>28</sup> With respect to direct investment, if exploration of natural resources proves unsuccessful (e.g. dry oil wells) and results in the shut-down of the notional DIENT, a negative adjustment for the remaining value of the enterprise should be recorded as a write-off by the two countries involved.

9.100 Regarding the data sources, if a write-off is large, it may appear in the financial statements of the creditor (example a bank or a direct investor) or the debtor. If a country has a register of external loans received or extended and a loan is written off, this information could be available to the compiler. Information may also be available through direct reporting of the enterprises involved.

### **Reclassifications**

9.101 A reclassification entry is necessary when a financial asset or liability changes its characteristics or status without there having been a cross-border transaction.

#### ***Tradable loans***

9.102 Loans that have become negotiable from one holder to another are to be reclassified from loans to debt securities under certain circumstances.<sup>29</sup> Through reclassification, the nominal value of the old loan is deducted and the market value of the new security is added. Therefore, the values of two reclassified instruments may differ. If the amount is significant,

<sup>28</sup> See *BPM6*, paragraphs 9.8-9.12 for further detail.

<sup>29</sup> For such reclassification, there needs to be evidence of secondary market trading, including the existence of market makers, and frequent quotations of the instrument, such as provided by bid-offer spreads (*BPM6*, paragraph 5.45).

the compiler may learn about this reclassification from the direct reporting by enterprises or a security-by-security data collection system.

#### ***Change in contractual terms***

9.103 The original terms of a contract may provide that the maturity and interest rate terms change as a result of an event such as a default or decline in credit rating. This would result in a reclassification.<sup>30</sup> If the instrument involved is a security, the change in maturity and interest rate may be recorded in a security-by-security database. If the instrument is a loan, the information may be available in a register of external loans. Alternatively, the information may be available through an enterprise survey that collects information on a loan-by-loan basis.

#### ***Transactions in existing assets***

9.104 Transactions in existing assets can result in changes in the composition of assets and liabilities in the IIP. When a financial instrument (such as a security) issued by a nonresident is sold by a resident in one institutional sector (e.g., a depository corporation) to a resident in another institutional sector (e.g., a nonfinancial corporation), the composition of assets by sector in the IIP changes by a reclassification. In terms of data source however, the information available on transactions in claims constituting external assets may not permit identification of the two parties to the transaction. That is, the compiler may not be able to ascertain whether a resident, who acquired or relinquished a claim on a nonresident, conducted the transaction with another resident or with a nonresident, or whether a nonresident dealt with another nonresident or with a resident. A security-by-security database that provides information on the holder may provide the compiler with necessary information.

#### ***Changes in functional category***

9.105 As a result of a change in the relationship between the parties or change in the liquidity of assets, the functional category may be changed. For example, if the relationship between the parties changes from portfolio to direct investment (or vice-versa) because the investor acquired (sold) equity holdings and as a result qualifies as a direct (portfolio) investor, the previous holdings would be reclassified from portfolio (direct) investment to direct (portfolio) investment. The compiler should be able to use the information by investor reported on enterprise surveys as a data source for this reclassification. In addition, the notes to financial statements of enterprises may be a source to identify changes in equity participation in nonresident entities.

#### ***Monetization and demonetization of gold bullion***

9.106 Gold bullion can be a financial asset (monetary gold) or a good (nonmonetary gold), depending on the holder and the motivation for holding. Monetization is the change in the classification of gold bullion from nonmonetary to monetary. Demonetization is change in

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<sup>30</sup> In contrast, a change in the terms as a result of renegotiation by the parties is a transaction, and thus is shown as a repayment of the old instrument and issue of a new one in the financial account (BPM6, paragraph 9.15).

the classification of gold bullion from monetary to nonmonetary. For example, when a monetary authority purchases gold bullion from a nonresident that is not a monetary authority or international financial organization, the transaction is recorded in nonmonetary gold in the goods and services account. Monetization of the gold bullion occurs immediately after the transaction and is shown in the other changes in assets and liabilities account of the monetary authority.<sup>31</sup> The compiler should be able to collect this information directly from the monetary authorities.

### ***Reclassification of unallocated gold accounts***

9.107 Unallocated gold accounts are classified as currency and deposits unless they are held by the monetary authorities as part of reserve assets. If a monetary authority acquires an unallocated gold account to be classified as reserve assets, it is recorded first as a transaction in other investment currency and deposits. Then it is reclassified from other investment currency and deposits to monetary gold (unallocated gold accounts) as a change of classification in the other changes in the volume of assets and liabilities account. The compiler should be able to collect this information directly from the monetary authorities and other depository corporations.

### **Financial assets and liabilities of persons and other entities changing residence**

9.108 When persons and other entities change their economy of residence, their existing financial assets and liabilities are added to or removed from the IIP through a reclassification and not by imputing transactions in the balance of payments. The treatment of change in residence applies to all the financial assets and liabilities, not just those that are shifted to the new economy of residence. For example, if a resident of Country A moves and becomes resident of Country B and maintains his bank account in Country A, this would be recorded in the IIP of Country A as an increase of liabilities to nonresidents (currency and deposits – other depository corporations) through a reclassification, not a transaction. In addition, the person changing residence may keep his real estate in Country A. This would be recorded as an increase in direct investment liability in Country A also through reclassification.

9.109 If depository corporations in Country A maintain information in their databases that show country of residence of the depositor, this could be used as a data source to compile this information. Also, if Country A maintains a register of real estate owned by nonresidents and monitors the register for changes in residence, the compiler may be able to access this as a data source. Information for such type of reclassification may also be available through a household survey.

9.110 In the exceptional case when corporate change of residence occurs (see *BPM6*, paragraph 4.167), the change in the residence of the owner of financial assets and liabilities is treated as a reclassification, in the same way as a change of residence of individuals. This information may be available through an enterprise survey.

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<sup>31</sup> Other examples on monetization and demonetization of gold can be found in *BPM6*, paragraph 9.18.

## **Insurance reserves, pension entitlements, and provisions for standardized guarantee schemes**

9.111 Changes in model assumptions can give rise to other changes in the volume of insurance reserves, pension entitlements, and provisions for standardized guarantee schemes. For an annuity, the relationship between premiums and benefits is usually determined when the contract is entered into, taking account of mortality data available at that time. Any subsequent changes will affect the liability of the annuity provider towards the beneficiary. The consequent changes in provisions would be recorded as other changes in volumes. Insurance companies could be a data source for this item, if significant.

## **D3. Other Changes in Financial Assets and Liabilities and Reconciliation Statement**

9.112 Entries in the reconciliation statement for other changes are usually associated with changes in the volume (as opposed to the revaluation) of external assets and liabilities. These entries should be subjected to further scrutiny, as they can reflect debt write-off or activation of guarantees (or incorrectly, debt forgiveness, which should be recorded as a transaction).

9.113 External information can be used to validate the quality of the reconciliation items in the reconciliation statement:

- If the domestic currency is generally appreciating (depreciating) against other currencies, then the exchange rate changes will generally decrease (increase) the value of foreign currency assets and liabilities.
- If domestic stock indexes are increasing (decreasing), reflecting broad-based increase in the value of stocks, then price changes will increase (decrease) the value of external equity liabilities. Similarly for global stock indexes and the value of external equity assets.
- If domestic interest rates are increasing (decreasing), then the market price of tradable debt security liabilities (to the extent that these are dominated by domestic issues in the domestic currency) will decrease (increase) the value of external liabilities.
- To the extent that domestic equities are issued in the domestic currency, then the exchange rate impact on these liabilities will be zero.
- By definition, the price changes on other investment debt instruments will be zero except in the unusual circumstances where these instruments are traded at a value different from nominal value.