

## 4. Accounting Framework and Sectoral Financial Statements

### Introduction

**4.1** Fundamental to understanding the financial condition of deposit takers, other corporations, and households is information from the traditional financial statements on income and expense, and the stock of assets and liabilities—the balance sheet. Data series obtained from such statements can be used to calculate many of the FSI ratios for corporations and households.

**4.2** This chapter begins by outlining the traditional accounting framework from which financial statements are drawn, before presenting detailed sectoral financial statements and defining the line-item series. The guidance is provided to assist in the compilation of the component series required to calculate the FSI ratios. It draws on the relevant conceptual advice for other economic statistics, IASs, and supervisory guidance, and takes account of macroprudential requirements.

**4.3** In addition to data reported by individual institutions, some data are required to make adjustments at the sector level, primarily to eliminate transactions and positions among institutions within the same sector. While sector-level data are discussed in more detail in Chapter 5, where appropriate the series required for sector-level adjustments are noted in footnotes in this chapter.<sup>1</sup>

**4.4** It is recognized that countries have different accounting systems and will rely on national sources

of data to compile FSIs. For example, to compile data on a domestically controlled cross-border consolidated basis, compilers may rely on supervisory-based data. Some data series may not be collected, and others may not meet the definitions suggested in the *Guide*. In such circumstances, the data that most closely approximate the principles in the *Guide* should be used. In determining the need to collect new data, with the associated increased resource cost, authorities must make a judgment as to the likely impact and importance of the additional data series for compiling and monitoring FSI data.

**4.5** In comments made on an earlier draft of the *Guide*, many compilers urged that flexibility be given to countries to take account of the differences in the readiness to adopt international standards. It was acknowledged that such flexibility may make comparison difficult between countries that have different criteria for recording information, increasing the importance of disseminating metadata (information about data). Such information could potentially give greater transparency.

**4.6** Given these concerns, why does the *Guide* provide sectoral accounts and detailed definitions? First, such an approach supports compilation efforts at the national level by specifying how the series required to calculate FSIs are to be defined. Second, by providing a consistent framework that draws on relevant international standards, and takes account of analytical needs, a benchmark is provided for use by national compilers, even if their own national standards differ. Such a benchmark can be used as a reference when disseminating metadata. Third, such an approach helps foster greater comparability of data across countries—a medium-term objective in line with the views of the IMF Executive Board. In this regard, the definitions provided in this chapter can help guide the future development of sectoral financial data to be used to calculate FSIs.

<sup>1</sup>The *Guide* prefers the reporting of financial statement data by individual institutions on a basis that is internally consistent for each institution, with additional information provided by individual institutions to permit appropriate adjustments at the sector level. This approach will not only provide more coherent information from the viewpoint of an individual institution, but it also facilitates identification of intrasector transactions and positions and is consistent with the approach to peer group and dispersion analysis as described in Chapter 15.

## Accounting Framework

**4.7** Outlined below are the key elements of financial statements.

### Income and Expense Statement

**4.8** This statement includes income and expenses related to the operations of the entity. After expenses have been deducted along with any dividends paid or payable to shareholders, any remaining income is transferred to the capital and reserves as retained earnings. As noted in Chapter 3, in the *Guide* income and expenses are recorded on an accrual rather than a cash basis. As defined in the *Guide*, net income before dividends measures the increase or decrease in value during the period that arises from the activities of the sector.

### Balance Sheet

**4.9** The balance sheet is the statement of assets, liabilities, and capital at the end of each accounting period:

- Assets include both financial<sup>2</sup> and nonfinancial assets.
- Liabilities include debt liabilities and financial derivatives.
- The difference between the value of assets and liabilities is known in the *Guide* as capital and reserves.<sup>3</sup> This represents the “cushion” to absorb any losses arising from the income and expense statement, or for other reasons. If liabilities exceed assets, then the entity is technically insolvent.

**4.10** Some liabilities and assets of corporations are contingent on a certain event(s) occurring and are recorded off balance sheet (see paragraph 3.12). As noted in Chapter 3, such items require monitoring to assess the full financial risk exposure of the corporation.

**4.11** Measures of profitability and capital depend on the accounting definitions and recognition rules adopted. For instance, if valuation gains and losses on assets are recorded in the income and expense statement, they will affect the recorded profitability of corporations. Moreover, if some assets or liabilities

are off—rather than on—balance sheet, this will affect measured capital. In developing the guidance on definitions set out below, to a varying extent three sources of accounting definitions are drawn upon. These are described in Box 4.1. The constituents of capital used in calculating the Basel capital adequacy ratio are described in Box 4.2.

**4.12** Appendix IV provides a detailed reconciliation of the definitions set out in this chapter with those in both national and commercial accounting—the basic data sources most likely to be drawn upon. This appendix supplements the main text and can be drawn upon for additional guidance.

## Sectoral Financial Statements

**4.13** Sectoral financial statements are set out below on an institutional sector basis. While the income and expense statements and the balance sheets for the specific sectors have a considerable degree of overlap in terms of line-item series identified (particularly the balance sheets), there are significant differences in presentation between the sectors. These differences have implications for the calculation of FSIs. For instance, the net interest margin is an important FSI series for deposit takers but not for the household sector, for which gross disposable income is a more relevant measure. The deposit-taking sector is presented first, because of its central role in the financial system and the wider range of series from the sectoral financial statements required to calculate FSIs for deposit takers.

**4.14** The line-item series in the financial statements for which definitions are provided are those required to calculate the FSIs set out in Chapters 6 and 7, either directly or as important building blocks in calculating the required aggregates. The advantage of defining these series within the framework of a financial statement is the accounting rigor that is imposed—the series are defined to ensure that the integrity of a double-entry recording system is maintained, while promoting a consistency of approach in the classification and coverage of transactions and positions. The conceptual guidance for the calculation of financial market FSIs is provided in Chapter 8.

**4.15** Unless stated otherwise, each series presented below is defined only once, even if it appears in other sectoral financial statements. Most of the definitions are provided in the section covering the deposit takers’ financial statement. It is recognized that there may need to be a degree of flexibility in interpreting

<sup>2</sup>Including financial derivatives.

<sup>3</sup>“Capital and reserves” is the term used in the IASs (IAS 1.66) and is consistent with the terminology used in the list of FSIs. In the 1993 SNA the equivalent terms are “shares and other equity” together with “net worth.” In the *Guide*, the term “shares and other equity” is used to denote equity assets.

### Box 4.1. Measurement Frameworks

In determining those accounting rules most relevant for the compilation of FSIs, three basic measurement frameworks can be drawn upon—national accounting, commercial accounting, as well as banking supervision guidance. This box aims to place these frameworks in context, explain their analytical purposes, describe their key characteristics, and provide references for further reading. It concludes by explaining that the FSI framework draws on these other frameworks but does not coincide with them because its analytical objectives are different.

#### National accounts data

The System of National Accounts (SNA) consists of a coherent, consistent, and integrated set of macroeconomic accounts, balance sheets, and tables based on a set of internationally agreed concepts, definitions, classifications, and accounting rules. The SNA provides a comprehensive accounting framework within which aggregated economic data can be compiled and presented in a format that is designed for purposes of economic analysis, decision making, and policymaking. Its intention is to provide comprehensive coverage of economic activities within an economy.

Central to the development of national accounts and the related methodologies is the concept of residence. The SNA groups resident institutional units into five resident institutional sectors and nonresident units into the rest of the world sector. It groups the related economic flows and stocks into three broad sets of accounts. The current accounts and the accumulation accounts cover economic flows (transactions and other flows), and the balance sheet accounts cover stocks. These three broad sets of accounts are fully integrated through sequential accounts that range from production accounts to balance sheet accounts.

The main source of information on national accounting is the *System of National Accounts 1993 (1993 SNA)* (Commission of the European Communities and others, 1993). Other related methodologies include the *Monetary and Financial Statistics Manual (MFSM)* (IMF, 2000a); *Balance of Payments Manual*, fifth edition (BPM5) (IMF, 1993); *Government Finance Statistics Manual (GFSM)* (IMF, 2001a); and *External Debt Statistics: Guide for Compilers and Users* (IMF, 2003b).

#### International accounting standards

The International Accounting Standards (IASs) are a series of standards for commercial accounting that provide concepts that underlie the preparation and presentation of financial statements of commercial, industrial, and business reporting enterprises, whether in the public or the private sector. A revised set<sup>1</sup>

<sup>1</sup>The effective date of the new IASs and IFRSs is January 1, 2005, which could introduce breaks in series in those countries where it is adopted. The IASs and IFRSs are voluntary standards that are implemented by national legislation. The European Union adopted the IASs and IFRSs beginning in 2005, as have other countries, while other countries may not adopt the IASs and IFRSs, may do so partially, or may introduce them over a period of time. Also, the IASs and IFRSs are not universal sets of standards in that they apply principally to large corporate entities that issue securities that are publicly traded. National commercial accounting standards may differ from IASs and IFRSs in important respects.

of IASs, so-called International Financial Reporting Standards (IFRSs), was completed in 2004. It includes significant revisions to the standards for disclosure and treatment of financial instruments. References in this *Guide* to specific IAS provisions include several concordance tables between the current standards and earlier versions.

The objective of financial statements is to provide information (including information on a consolidated basis) about the financial position and performance of an enterprise, as well as changes in its financial position. Consolidated reporting provides information on the group as a whole, which is usually the concern of users of financial statements. A reporting enterprise is an enterprise for which there are users who rely on financial statements as their main source of financial information about the enterprise. Users include investors, employees of the enterprise, lenders, suppliers and other trade creditors, customers, governments and their agencies, and the public.

The financial statements portray the financial effects of transactions and other events by grouping them into broad categories according to their economic characteristics. The elements directly related to the measurement of the financial position in the balance sheet are assets, liabilities, and equity. The elements directly related to performance in the income statement are income and expenses. Like the 1993 SNA, the presentation of these elements in the balance sheet and income statements involves a process of subclassification. For example, assets and liabilities may be classified by their nature or function in the business of the enterprise to display information in the manner most useful for making economic decisions. But unlike the 1993 SNA framework, the IAS framework is not designed to produce aggregated statistics.

The IASs are available from the International Accounting Standards Board (IASB), [www.iasb.org](http://www.iasb.org).

#### Banking supervision

In 1988, the Basel Committee on Banking Supervision (BCBS) agreed on supervisory regulations governing the capital adequacy of international banks. These regulations, which were amended in 1996, provide a framework (commonly known as Basel I) for the measurement of capital in relation to the perceived credit and market risk of the assets owned by the bank. Two fundamental objectives lie at the heart of the BCBS's work. First, the framework is intended to strengthen the soundness and stability of the international banking system. Second, the framework is intended to be fair and, through a high degree of consistency in its application to banks in different countries, to diminish sources of competitive inequality among international banks.

The agreement reached was applied to banks on a consolidated basis, including subsidiaries undertaking banking and financial business. Consolidated reporting captures the risks within the whole banking group. The constituents of capital are divided into three tiers and are described in more detail in Box 4.2. While banking supervisors rely on commercial accounting standards for financial statements from banks, and thus do not provide a

**Box 4.1 (concluded)**

separate comprehensive framework comparable to those available from the national and commercial accounting sources, over the years they have developed various guidance rules with regard to capital adequacy for activities that directly affect banks' capital (for example, on provisioning).

In 2004, the BCBS published a revised framework that modified the existing capital adequacy requirements and incorporated new standards for supervisory oversight of banking and for disclosure of banking information. The new framework is commonly known as Basel II.

The main sources of information on the BCBS's capital adequacy requirements are the "International Convergence of Capital Measurement and Capital Standards" (BCBS, 1988) and "Amendment to the Capital Accord to Incorporate Market Risks" (BCBS, 1996). There is also other related documentation in BCBS (2001a).<sup>2</sup> The new framework is published in *Basel II: International Convergence of Capital Measurement and Capital Standards: A Revised Framework* (BCBS, 2004).

**Financial soundness indicators**

The objective of the *Guide* is to set out a framework of guidelines to underlie the preparation of financial statements for

<sup>2</sup>Also available on the BIS website (<http://www.bis.org/publ/bcbasc002.htm#pgtop>).

deposit takers, other financial corporations, nonfinancial corporations, and households in order to calculate FSIs for the purpose of assisting in the assessment and monitoring of the strengths and vulnerabilities of financial systems.

The framework draws on existing frameworks and therefore has many similarities of approach with them; for instance, the accrual method of recognition of flows and positions. However, in broad terms there are three significant differences in approach from existing frameworks: sector information, recording of activity, and consolidation.

- Unlike the interest of commercial accounting and supervisory approaches in individual entities, the FSI framework, like the national accounts, focuses on aggregated sector information.
- Whereas the national accounts embrace symmetric recording of flows and positions within and across sectors (because of the economy-wide perspective) and commercial accounting and supervisory approaches do not (because of the focus on the individual entity), the FSI framework favors a symmetric recording of flows and positions within the sector, to avoid distortions in the sector data, but not necessarily among sectors, because the type of data required differs by sector.
- Whereas the national accounts are keen to capture more or less all economic activity, the FSI framework, like commercial and supervisory accounting, favors a consolidated approach to avoid the double counting of capital and activity.

this guidance when compiling data. When disseminating data, compilers are encouraged to document any significant differences between national practice and the guidance provided below.

**Deposit Takers****Income and expense**

**4.16** The sectoral financial statement for deposit takers is set out in Table 4.1.

**4.17** For deposit takers the main source of revenue and expense is interest. *Interest income* is a form of income that accrues on debt instruments such as deposits, loans, debt securities, and other accounts receivable. For the borrower it is the cost (known as an interest cost) of the use of another entity's funds (Box 4.3).<sup>4</sup> As explained in Chapter 3 (paragraph 3.7) in the

<sup>4</sup>Box 4.3 discusses the implications of Islamic principles, such as the prohibition of receipt and payment of interest, for the compilation of FSIs for deposit taker sectors that include Islamic financial institutions (IFIs).

*Guide*, interest is recorded as accruing continuously. As can be seen in Table 4.1, the difference between interest expense and interest income is known as *net interest income*.

**4.18** A specific issue arises of whether interest should accrue on nonperforming assets, and if so, should this affect the net interest income line. The *Guide* recommends that interest on a nonperforming asset should be recorded on a cash payment, not accrual, basis. Interest income should not include the accrual of interest on nonperforming assets, because otherwise net interest income would be overstated relative to the actual interest-earning capacity of the deposit taker.<sup>5</sup>

<sup>5</sup>The *Guide* recognizes that while in many countries classification of an asset as nonperforming is strong evidence for it to be placed on a nonaccrual basis, the provision of collateral or other guarantees might lead the deposit taker to consider that the debtor will continue to meet his obligations. While accepting that national practices do vary on this matter, for the purposes of developing international guidance for FSIs, the *Guide* considers classification as nonperforming sufficient evidence to cease accruing interest on the asset and to record interest income only if the debtor subsequently makes an interest payment.

### Box 4.2. The Basel Capital Adequacy Ratio

The Basel capital adequacy ratio was adopted in 1988 by the Basel Committee on Banking Supervision (BCBS) as a benchmark to evaluate whether banks operating in the Group of Ten (G-10) countries have sufficient capital to survive likely economic shocks. The ratio calls for minimum levels of capital to (1) provide a cushion against losses due to default arising from both on- and off-balance-sheet exposures, (2) demonstrate that bank owners are willing to put their own funds at risk, (3) provide quickly available resources free of transaction and liquidation costs, (4) provide for normal expansion and business finance, (5) level the playing field by requiring universal application of the standard, and (6) encourage less risky lending.

The original Basel capital ratio, along with subsequent amendments, requires international banks to have a specific measure of capital greater than or equal to 8 percent of a specific measure of assets weighted by their estimated credit risk. The ratio is an analytical construct with complex definitions of the numerator (capital) and the denominator (risk-weighted assets) that cannot be derived directly from standard financial statements. The ratio can be expressed as:

$$\text{Risk-based capital adequacy ratio} = \frac{\text{Capital} \times 100}{\text{Risk-weighted assets}} \geq 8.$$

This formula states that a banking enterprise must have capital on a worldwide consolidated basis equal to 8 percent or more of its risk-weighted assets, which includes an on-balance-sheet equivalent position of off-balance-sheet positions, where capital can be expressed as:

$$\text{Capital} = (\text{Tier 1 capital} - \text{goodwill}) + (\text{Tier 2 capital}) + (\text{Tier 3 capital}) - \text{adjustments}.$$

*Tier 1 capital*, or “core capital,” consists of equity capital and disclosed reserves that are considered freely available to meet claims against the bank.

*Tier 2 capital* consists of financial instruments and reserves that are available to absorb losses but that might lack permanency, have uncertain values, entail costs if sold, or otherwise lack the full loss-absorption capacity of Tier 1 capital items.

*Tier 3 capital* consists of subordinated debt with an original maturity of at least two years for use, if needed, against market

risk exposures associated with fluctuations in the market value of assets held. Neither interest nor principal on its debt may be paid if such payments mean that the bank falls below or remains below its minimum capital requirement.

*Goodwill* is subtracted because the value of goodwill may fall during crises, and various *adjustments* are made to capital to prevent possible double counting of value.

*Risk-weighted assets*, the denominator of the Basel capital ratio, are the weighted total of each class of assets and off-balance-sheet asset exposures, with weights related to the credit risk associated with each type of asset. In the example below, the market value of assets is 940, but the value of risk-weighted assets is 615.

Example of Estimation of Risk-Weighted Assets

| Type of Asset       | Value of Holdings | Risk Weight | Risk-Weighted Assets |
|---------------------|-------------------|-------------|----------------------|
| U.S. Treasury bonds | 200               | 0%          | 0                    |
| Mortgage loans      | 250               | 50%         | 125                  |
| Corporation bonds   | 120               | 100%        | 120                  |
| Consumer loans      | 370               | 100%        | 370                  |
| Total               | 940               | —           | 615                  |

Capital adequacy ratios are often not directly comparable among countries because national supervisors have some leeway in defining weights and adjustments and, even more important, national practice may vary in the valuation of assets, recognition of loan losses, and provisioning, which can significantly affect the ratio. In addition, an aggregate measure of capital adequacy potentially disguises information on individual institutions, and thus for macroprudential analysis, it is useful to supplement the aggregate ratio with information on the dispersion of ratios for individual institutions or subsectors of the banking system.

Recent developments regarding the ratio include attempts to refine the weighting system. In particular, in 2004 the Basel Committee issued a revised framework, known as Basel II, that permits greater differentiation among assets based on their risk, including the possibility of using—under specified conditions—internal model-based measures of risk exposures (BCBS, 2004).

Table 4.1. Deposit Takers

| Income and Expense Statement  | Balance Sheet  |
|---|--|
| 1. Interest income <sup>1</sup><br>(i) Gross interest income<br>(ii) Less provisions for accrued interest on nonperforming assets<br>2. Interest expense <sup>1</sup><br>3. <i>Net interest income</i> (= 1 minus 2)<br>4. Noninterest income<br>(i) Fees and commissions receivable <sup>1</sup><br>(ii) Gains or losses on financial instruments<br>(iii) Prorated earnings<br>(iv) Other income <sup>1</sup><br>5. <i>Gross income</i> (= 3 + 4)<br>6. Noninterest expenses<br>(i) Personnel costs<br>(ii) Other expenses<br>7. Provisions (net)<br>(i) Loan loss provisions<br>(ii) Other financial asset provisions<br>8. <i>Net income (before extraordinary items and taxes)</i><br>(= 5 minus (6 + 7))<br>9. Extraordinary items<br>10. Income tax<br>11. <i>Net income after tax</i> (= 8 minus (9 + 10))<br>12. Dividends payable<br>13. <i>Retained earnings</i> (= 11 minus 12) | 14. <b>Total assets</b> (= 15 + 16 = 31)<br>15. <i>Nonfinancial assets</i><br>16. <i>Financial assets</i> (= 17 through 22)<br>17. Currency and deposits <sup>1</sup><br>18. Loans (after specific provisions)<br>(i) Gross loans <sup>1</sup><br>(i.i) Interbank loans <sup>2</sup><br>(i.i.i) Resident<br>(i.i.ii) Nonresident<br>(i.ii) Noninterbank loans<br>(i.ii.i) Central bank<br>(i.ii.ii) General government<br>(i.ii.iii) Other financial corporations<br>(i.ii.iv) Nonfinancial corporations<br>(i.ii.v) Other domestic sectors<br>(i.ii.vi) Nonresidents<br>(ii) Specific provisions <sup>3</sup><br>19. Debt securities <sup>1</sup><br>20. Shares and other equity<br>21. Financial derivatives <sup>1</sup><br>22. Other assets <sup>1</sup><br>23. <i>Liabilities</i> (= 28 + 29)<br>24. Currency and deposits<br>(i) Customer deposits<br>(ii) Interbank deposits <sup>2</sup><br>(ii.i) Resident<br>(ii.ii) Nonresident<br>(iii) Other currency and deposits<br>25. Loans<br>26. Debt securities<br>27. Other liabilities<br>28. <i>Debt</i> (= 24 + 25 + 26 + 27)<br>29. Financial derivatives<br>30. Capital and reserves<br>(i) <i>Of which: Narrow capital and reserves</i> <sup>4</sup><br>31. <b>Balance sheet total</b> (= 23 + 30 = 14) |
| <b>Memorandum series</b>  |  |
| <b>Other series required to calculate the agreed FSIs</b>   |  |
| <i>Supervisory series</i>   |  |
| 32. Tier 1 capital  |  |
| 33. Tier 2 capital  |  |
| 34. Tier 3 capital  |  |
| 35. Supervisory deductions  |  |
| 36. <i>Total regulatory capital</i> (= 32 through 34 minus 35)  |  |
| 37. Risk-weighted assets  |  |
| 38. Number of large exposures   |  |
| <i>Series that provide a further analysis of the balance sheet</i>  |  |
| 39. Liquid assets (core)  |  |
| 40. Liquid assets (broad measure)   |  |
| 41. Short-term liabilities  |  |
| 42. Nonperforming loans   |  |
| 43. Residential real estate loans   |  |
| 44. Commercial real estate loans  |  |
| 45. Geographic distribution of loans <sup>5</sup>   |  |
| 46. Foreign currency loans  |  |
| 47. Foreign currency liabilities  |  |
| 48. Net open position in equities   |  |
| 49. Net open position in foreign currency for on-balance-sheet items  |  |

Table 4.1 (concluded)

*Balance-sheet-related series*

50. Total net open position in foreign currency  
 51. Exposures of largest deposit takers to largest entities in the economy  
 52. Exposures to affiliated entities and other “connected” counterparties

<sup>1</sup>To understand the interconnections among deposit takers, separate identification of income and claims on other deposit takers in the reporting population is encouraged.

<sup>2</sup>Interbank loans and deposits comprise those loans to or deposits from any other deposit taker (resident or nonresident).

<sup>3</sup>If only gross loans data are available, including the accrual of interest on NPLs, any provisions for accrued interest on NPLs should be included in this line item and, if significant, separately identified.

<sup>4</sup>These are funds contributed by owners plus retained earnings (including appropriations from retained earnings to reserves). Purchased goodwill is excluded. Data are compiled only if Tier 1 data are not available.

<sup>5</sup>While individual country circumstances will vary, data on the distribution of lending by regional groupings of countries are encouraged, with additional country information where relevant (see paragraph 6.63).

**4.19** To ensure consistency of approach between debtors and creditors, Table 4.1 includes the line items for *gross interest income*, including interest accrual on nonperforming assets, and *provisions for interest accrual* on nonperforming assets. The latter should be deducted from the former to eliminate the interest accruing on nonperforming assets in the interest income line.<sup>6,7</sup> If the debtor subsequently pays interest on nonperforming assets to the deposit taker, interest income should increase through an adjustment to the provision in the period payments are received and, if significant, should be referred to in any accompanying explanatory documentation.<sup>8</sup> If any interest accrued before an asset was classified as nonperforming, given that such accrual would increase the value of the asset, a specific loan loss provision would be appropriate (see paragraph 4.32). If data are available only on interest income, excluding interest accrual on nonperforming assets, then only the interest income line (line 1 in Table 4.1) should

<sup>6</sup>BCBS (1999, p. 29) notes the need for such an approach in countries where, as a result of laws or regulations, banks must accrue interest on impaired loans in accordance with the original terms of the contract. Nonetheless, the general guidance of the BCBS is that for impaired loans a bank should cease accruing interest in accordance with the contract.

<sup>7</sup>The approach of accruing at the contractual rate and including a provision for interest accrual could be adopted for an instrument that is not classified as nonperforming but for which only partial payment of interest is expected in the coming period(s), or has occurred in the current period. Under such circumstances, simply accruing interest at the contractual rate would likely overstate income.

<sup>8</sup>Where interest ceases to accrue on claims on other deposit takers in the reporting population, to avoid asymmetric reporting of net income at the sector level, additional information on the amounts involved should be reported—both the provisions and any amounts subsequently paid.

be reported. Appendix V provides numerical examples of how to record interest on NPLs.

**4.20** *Noninterest income* is all other income received by the deposit taker. Included are *fees and commissions* from the provision of services, *gains and losses on financial instruments*,<sup>9</sup> and *other income*. Net interest income together with noninterest income is equal to *gross income*.

**4.21** *Fees and commissions* are for services such as payment services; intermediary services (for example, those associated with lines of credit and letters of credit); services related to transactions in securities (for example, brokerage, placements and underwriting of new issues, arrangement of swaps and other financial derivatives, security lending); and services related to asset management (for example, portfolio management, safe custody).<sup>10</sup> National practice might require that fees and commissions payable to other deposit takers in the reporting population be included as a negative income item rather than included as an expense.

**4.22** *Gains and losses on financial instruments* are those arising during the period under review. The *Guide* encourages the inclusion in this item of realized and unrealized gains and losses arising during each period on all financial instruments (financial

<sup>9</sup>Such gains and losses are not classified as income in the 1993 SNA.

<sup>10</sup>Implicit fees and commissions, such as those corresponding to the 1993 SNA concept of “financial intermediation services indirectly measured” (FSIM), are not included in this item. In other words, interest income is not adjusted for any FSIM estimates.

assets and liabilities, in domestic and foreign currencies) valued at market or fair value on the balance sheet,<sup>11</sup> including investment account securities but excluding equity in associates, subsidiaries, and any reverse equity investments.<sup>12,13</sup> Gains and losses on foreign exchange instruments and on financial derivative instruments, such as interest rate swaps, are also included. Gains and losses on financial instruments exclude any interest included in the net interest income account as accrued for that instrument in the reporting period, as such amounts have been already accounted for in the income account as interest income.

**4.23** In contrast, gains and losses in deposit takers' accounts have traditionally covered gains and losses recorded on assets and liabilities held for a short period as deposit takers seek to take advantage of short-term fluctuations in market prices. Coverage varies among the various accounting standards but typically includes realized and unrealized gains and losses during the period on securities and derivatives held in the so-called dealing account.<sup>14</sup> Coverage includes gains and losses arising from on-selling of securities acquired under security repurchase agreements, securities lending, and sell/buyback arrangements (see paragraph 4.48); any gains or losses realized during the period on sales of securities held in the investment account; and gains or losses arising from the holding, sale, and purchase of foreign exchange instruments (except for equity investments in associates and subsidiaries), including foreign exchange derivative contracts.

<sup>11</sup>For data at the sector level, gains and losses on any holdings of equity issued by other deposit takers in the population should be excluded (see Box 5.1).

<sup>12</sup>Associates and subsidiaries are defined in the next chapter.

<sup>13</sup>Changes in the value of equity in associates, unconsolidated subsidiaries, and reverse equity investments are excluded from this income line because income would be double counted: the line *other income* includes the prorated share of profits and losses from associates, unconsolidated subsidiaries, and reverse equity investments. Moreover, if a deposit taker sells a stake in a deposit-taking associate or subsidiary (or there is a disinvestment of a reverse investment) at a value greater than the proportionate value of the capital and reserves, the difference should not be included within income. Instead, it should be added to the seller's capital and reserves, thus ensuring symmetric treatment with that for goodwill, which is deducted from capital and reserves (see paragraph 4.110).

<sup>14</sup>Banks typically distinguish in their accounts between securities held for trading (dealing account or trading book) and those held for long-term investment (investment account or banking book), usually to maturity. IAS 39 further distinguishes the latter category between financial instruments held to maturity and financial instruments available for sale.

**4.24** However, the *Guide* encourages the wider coverage of gains and losses on financial instruments outlined in paragraph 4.22 for the following purposes:

- (1) ***Net income reflects current health and not past developments.*** In other words, changes in the value of financial instruments that can be reliably measured are recorded in sector income in the period they arise.<sup>15</sup> Experience has demonstrated that the buildup of hidden gains and losses that remain unrecorded in the income statement until they are realized can be misleading for macroprudential analysis.
- (2) ***Return on capital is reliably observed.*** Capital is employed by deposit takers to generate income primarily through activity in financial instruments. Excluding unrealized gains and losses in financial instruments, whose value can be reliably measured, obscures in any one period the extent to which capital is efficiently employed. While immediate recognition of gains and losses might generate greater period-to-period volatility in the return on capital data than nonrecognition, understanding the causes of such volatility and observing the trend over time provides a more robust basis for macroprudential analysis.
- (3) ***The relative importance of gains and losses on those financial assets and liabilities valued at market or fair value can be monitored.*** Experience has shown that gains and losses on financial instruments can be a more volatile element in deposit takers' earnings than other income items, perhaps reflecting potentially greater risk taking. Identification of the size and sensitivity of deposit takers' income and capital to changes in market conditions is best observed by time-series data that capture the gains and losses on an ongoing basis.
- (4) ***Asymmetric reporting of gains and losses at the sector-wide level is avoided.*** If individual deposit takers record gains and losses on the same instrument at different times, this will lead to inconsistent measures of net income at the sector level.<sup>16</sup>

<sup>15</sup>For nontraded instruments, reduction in value recognized by the deposit taker is reflected in provisions.

<sup>16</sup>Unlike the instruments covered by this item, for instruments recorded at nominal value asymmetries can arise when creditors but not debtors make provisions for the credit risk of the debtor. In Chapter 5, the *Guide* discusses sector adjustments for instances where both the debtor and creditor are in the deposit-taking sector.

**4.25** Appendix V provides numerical examples of how to record gains and losses on financial instruments.

**4.26** It is acknowledged that coverage of gains and losses as set out in paragraph 4.22 may not be feasible for reporters at the time of writing, and that data collection systems may need to be developed.

**4.27** For those financial instruments for which gains and losses can be recorded only when realized, the gain or loss should be measured as the difference between the transaction value and the market value recorded on the balance sheet at the end of the previous period. Any unrealized gains or losses that developed over previous periods and that are included in the valuation adjustment should be transferred to retained earnings. In other words, so as not to distort measures of current health, or create adverse selection-type incentives described in paragraph 3.22, net income should not reflect the realization of gains or losses that have developed in the balance sheet valuation of financial instruments and been retained over a number of reporting periods. In addition, all gains or losses in the reporting period—that is, since the previous end-period—that are realized on any other financial assets (except for those related to associate, subsidiary, and reverse equity investments, which are all recorded directly in capital and reserves) should also be included within the gains and losses on the financial instruments line. This includes gains and losses on loan sales. If these gains and losses are significant in any one period, compilers are encouraged to provide additional information so that their importance to the data disseminated can be judged.

**4.28** *Prorated earnings* cover the share—on the basis of the share of equity owned—of net income after tax<sup>17</sup> from associates, unconsolidated subsidiaries,<sup>18</sup> and reverse equity investments, and, for domestic-based data, foreign branches.<sup>19</sup>

<sup>17</sup>Unless the taxes on net income are payable by the investor, in which instance this item covers net income before tax.

<sup>18</sup>This item also covers income reflecting the withdrawal of income by the owner from a quasi corporation. Only withdrawal of income from the net income earned by the quasi corporation should be included.

<sup>19</sup>At the sector level, any earnings from deposit-taking associates that are covered in the reporting population should be excluded from this line (see also Box 5.1).

**4.29** *Other income* covers (1) dividends declared payable by other corporations or cooperatives in which deposit takers have an equity stake,<sup>20</sup> (2) gains or losses on sales of fixed assets in the current period (measured as the difference between the sale value and the balance sheet value at the previous end-period),<sup>21</sup> (3) rental and royalty income receivable (including income from buildings, other structures, and equipment; from land and subsoil assets; and from other produced and nonproduced assets), and (4) any amounts receivable by deposit takers arising from compensation for damage or injury.

**4.30** *Noninterest expenses* cover all expenses other than interest expenses, including *fees and commissions*. They include operating expenses relating to ordinary banking business (other than interest expenses) such as (1) personnel (or staff) costs (see below); (2) expenses for property and equipment (ordinary and regular maintenance and repair);<sup>22</sup> rentals paid on buildings, other structures, and equipment (and related depreciation);<sup>23</sup> and rents paid on land; (3) other expenditures related to the operations, including purchases of goods and services (for example, advertising costs, staff training service expenses, and fees for other services provided), and royalties paid for the use of other produced or nonproduced assets (excluding those expenses classified as per-

<sup>20</sup>To avoid double counting of income before extraordinary items and taxes, in the sector-level data, dividends receivable from other deposit takers in the reporting population should be excluded from this item and instead included (with a negative sign) in the dividends payable line. In this way, the data for dividends payable by, and receivable from, other deposit takers in the reporting population will net out to zero in this line.

<sup>21</sup>At the sector level, any gains or losses realized through a sale of a fixed asset to another deposit taker in the reporting population should, in principle, be excluded from this item and not affect net income. This is because the valuation gain or loss remains unrealized by the sector as a whole. Only when fixed assets are sold to an entity outside the sector should such gains or losses be recorded in the income account. While maintaining records of fixed assets by transactor might raise practical difficulties, it is recommended that at least significant gains and losses for the period under review arising from sales to another deposit taker in the reporting population be identified—subject to confidentiality constraints—and deducted from sector-wide income.

<sup>22</sup>Such expenses are different in nature, and so recorded differently, from expenditures on gross fixed capital formation, which add to nonfinancial assets in the balance sheet.

<sup>23</sup>There are differences between the national accounts and commercial accounts measurements of depreciation. The *Guide* does not make a judgment as to the preferred method. As explained in Appendix IV, the national accounts approach is based on current market prices, whereas the commercial accounts approach is based on historic prices but allows for periodic reviews with adjustments to the schedule of depreciation as necessary.

sonnel costs (see below)); and (4) taxes other than income taxes—such as taxes on the ownership or use of land and buildings or on labor employed (including payroll and other employee-related taxes payable by the employer)—less any subsidies related to operating activity, such as subsidies received from general government. Also included are any fines and penalties imposed on deposit takers, by courts of law or otherwise, and any amounts payable by deposit takers as compensation to other institutional units for injury and damage. For deposit takers, operating expenses also include any premiums paid to a deposit insurance fund.

**4.31** *Personnel costs* include the total remuneration, in cash or in kind, payable by the enterprise in return for work done by employees during the accounting period. Included are wages and salaries, including paid annual leave and paid sick leave; profit sharing and bonuses; allowances for housing and cars; as well as free or subsidized goods and services (except those required for employees to carry out their work); and social security contributions, for such items as medical care and pensions.<sup>24</sup> Also included are unfunded employee social insurance benefits such as the continued payment of normal or reduced wages during periods of absence from work as a result of ill health and accidents, redundancy payments, and so on.

**4.32** *Loan loss provisions* are net new allowances that deposit takers make in the period against bad or impaired loans, based on their judgment as to the likelihood of losses.<sup>25</sup> General provisions are provisions not attributed to specific assets but to the amount of losses that experience suggests may be in a portfolio of loans. Such provisions are sometimes calculated as a percentage of total assets. Alternatively, they can be calculated by applying progressively higher percentages for lower quality assets, reflecting the increasing probability of losses. Specific provisions are charges against the value of specific loans (including a collectively assessed group of loans) and reflect identifiable losses (see also BCBS, 1999, p. 13).

<sup>24</sup>International Financial Reporting Standard 2 (IFRS 2), issued in 2004, treats stock options as a personnel expense. Compilers are encouraged to adopt that standard for compiling data for use in calculating FSIs and to describe their approach in any metadata disseminated.

<sup>25</sup>At the sector level, provisions against loans to other deposit takers in the reporting population should be excluded from this item to avoid asymmetric reporting.

**4.33** The *Guide* relies on national practices in identifying loan loss provisions and distinguishing between specific and general provisions but recommends that such practices be clearly documented. Provisions for the accrual of interest on nonperforming assets should not be included under loan loss provisions, as they are identified within (and excluded from) net interest income.<sup>26</sup> While provisions for losses or future expenses reduce net income, subject to national practice, overprediction of expected losses or expenses in any one period could be reversed in subsequent periods, increasing income in those periods. An explanation of how provisioning affects assets as well as capital and reserves is provided in Box 4.4. In addition, Appendix VI includes a discussion of approaches to the classification of assets and provisioning.

**4.34** *Other financial asset provisions* include provisions against any other financial assets (that are neither traded nor recorded at market prices) that can be valued reliably. If it is not feasible at this time to include unrealized gains and losses on securities—such as those in the investment account—within gains and losses on financial instruments (see paragraph 4.22), then the same approach used for loan provisioning should be adopted for these securities, so that losses on these assets are captured within net income.<sup>27</sup> This category also includes any new provisions made for supervisory purposes to take account of changes in the volatility of bid-ask spreads or other factors relating to closing out a position in a less-liquid tradable instrument (see also BCBS, 2001b, para. 579). Gross income less noninterest expenses and provisions<sup>28</sup> equates to *net income (before extraordinary items and tax)*.

**4.35** *Extraordinary items* cover events that are extraordinary in relation to the business ordinarily carried out by the enterprise. Such events would be rare and include catastrophic losses arising from a natural or other disaster. Extraordinary items can include

<sup>26</sup>As noted in paragraph 4.19, for any interest that has accrued in earlier periods but is subsequently considered to be an expected identifiable loss, the provision for the loss should be included in line item 7, and not as a provision for accrued interest on nonperforming assets.

<sup>27</sup>Specific provisions against the value of a security should reduce the value of the security in the balance sheet, as though it were being marked-to-market.

<sup>28</sup>For provisions and extraordinary items, these items should usually represent a loss. However, in any one period, these items might add to income if they are subsequently recovered, for example.

### Box 4.3. Islamic Financial Institutions and Financial Soundness

Islamic financial institutions (IFIs) operate under Islamic principles whereby *ex ante* interest payments are prohibited, profits and losses of underlying transactions are shared, and lending is based on Islamic ethical principles. They present a unique profile of financial risk and soundness that fundamentally affects the structures of the income accounts and balance sheets, which in turn affect the compilation and meaning of financial soundness indicators. The differences are beginning to be addressed by financial accountants and supervisors of financial institutions, but it may be some time before the full range of issues are identified and appropriate accounting and supervisory standards are developed and adopted.<sup>1</sup> This box describes some of the unique elements of IFIs and how key FSIs might be affected.

Although variations in practice exist, reliance on Islamic principles sets IFIs apart from other institutions in numerous ways. Perhaps the most notable is the prohibition of receipt or payment of interest. For example, loans or deposits with interest rates fixed beforehand are prohibited—a fundamental difference from non-Islamic banks that borrow in exchange for payments of interest and lend in order to acquire assets that can earn interest. Thus, the two core FSIs that focus on the margin between interest receipts and payments apply to non-Islamic banks but not to Islamic banks.

IFIs accept deposits under the *Mudarabah* concept and invest in permissible and Shariah-compliant investments and financing arrangements. In such a manner, IFIs are undertaking a financial intermediary function. However, in principle depositors are guaranteed neither a pre-fixed return nor the principal amount. Rather depositors act as fund providers, bearing losses alone, as the IFI has incurred a “loss” in the form of entrepreneurial efforts. Profits generated are shared between the IFIs and the depositors based on a preagreed profit-sharing ratio. As for the operation of the accounts, it is similar to deposit operations under conventional banking. Under a second form of depositing, IFIs hold funds for safekeeping with a guarantee of full repayment of principal but no interest.

Also, IFIs can operate through profit and loss sharing (PLS) arrangements that do not guarantee full repayment of principal and do not have fixed profit returns. IFIs earn income by charging fees for services, by engaging in profit sharing, and, most important, from activities such as trade-related financing, hire purchase, and leasing. In some countries, these constitute the primary activities of IFIs.

Under PLS arrangements, the resources of the IFI and investors are often pooled to undertake specific commercial ventures, and

the total returns are divided between the IFI and the investors based on a predetermined profit-sharing arrangement. Profits earned could be disbursed during the life of the venture as well as at its conclusion. Depending on the outcome, both may gain or lose on their investments. To this end, IFIs issue securities called PLS certificates that do not provide for either capital certainty or pre-fixed positive returns. Some of these instruments are defined as “unrestricted investment accounts” that give the IFI latitude to make the investments as it sees fit, much as non-Islamic banks invest the funds provided by depositors.

PLS arrangements and unrestricted investment accounts result in a somewhat different role for capital in IFIs from that in other types of banks. For instance, in an IMF Working Paper, Sundararajan and Errico (2002, p. 9) concluded that “it may be reasonable to conclude that the assessment of capital adequacy for Islamic banks should be based not only on a thorough evaluation of the degree of risk in each bank’s portfolio, but also an assessment of the mix of PLS and non-PLS assets.” In addition, there appears to be ambiguity regarding the identification and valuation of nonperforming loans (NPLs) and provisioning, as well as their disclosure.

In constructing IFI balance sheets, it can be ambiguous whether the contributions of investors in PLS certificates and unrestricted investment accounts are liabilities of the IFI. Often, the IFI will act as a fiduciary or asset manager, placing the funds in off-balance-sheet trust accounts and providing investment advice to receive either fees or a distribution of net profits. Some IFIs are known to handle substantial portions of their business through off-balance-sheet accounts under the assumption that they are performing a fund management role for the investor, which affects leverage ratios and the Basel capital adequacy calculations.<sup>2</sup> At present, national practices in recording such arrangements differ, with both on- and off-balance-sheet treatments used. One opinion, by the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI), is that unrestricted investment accounts are part of the balance sheet of the IFI and should be included as a separate type of instrument—between a liability and equity capital. The *Guide* follows the advice of the *Monetary and Financial Statistics Manual (MFSM)*<sup>3</sup> and classifies such instruments as deposits unless they are part of the permanent capital base of the IFI or have the characteristics of a tradable instrument.

The asset structure of IFIs is characterized by a diverse spectrum of Islamic financing structures, ranging from the low-risk lease-based to the higher-risk equity-based modes of finance. As each mode has its own distinct features, different degrees of credit risk, market risk, and operational risk are entailed.

<sup>1</sup>The Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) was created in 1991 in Bahrain to set accounting, auditing, and governance standards that are being followed by IFIs in a number of countries. Moreover, in November 2002, the Islamic Financial Services Board (IFSB) was established in Malaysia as an association of central banks, monetary authorities, and other institutions that are responsible for the regulation and supervision of the Islamic financial services industry.

<sup>2</sup>The AAOIFI has stated that its aim is to follow the Basel methodology as closely as possible.

<sup>3</sup>A detailed description of Islamic instruments and their classification is provided on pages 125–127 of the *MFSM* (IMF, 2000a) and this text should be consulted in determining the classification of instruments for the purposes of compiling data for FSIs.

**Box 4.3 (concluded)**

To date, IFIs have tended to be heavily involved in shorter-term commercial credits and project finance that are normally resolved within a year or two, which permits the redistribution of the net proceeds. This arises in part from the absence of Islamic money markets that permit the ready transfer of short-term liquidity between IFIs and act to establish market-based rates of return for such borrowing. There has been some difficulty in developing instruments, such as interbank instruments, monetary policy instruments, and longer-term instruments such as mortgages, although examples of all these exist. In part, this stems from the greater difficulty, compared with the case of project-type finance, in devising suitable means to measure and distribute net returns on credits to governments, ongoing firms, or noncommercial institutions.

The above pattern has important implications for FSIs—the balance sheets of IFIs differ from those of non-Islamic banks, and estimates of rates of return of IFIs may prove hard to develop and compare.<sup>4</sup> Moreover, instruments are under development, and, in some instances, Islamic banking principles may be mixed with standard banking practices. Against this background, accounting practices for IFIs are still developing. Until this work is further advanced, and standard practices can begin to be identified within markets, the *Guide* considers that it is premature to attempt to link FSIs to specific accounting series used by IFIs.

<sup>4</sup>Bank Negara Malaysia has developed a structured framework in the determination of the rate of return for Islamic banking operations. This framework addresses the issue of uniformity, reducing the potential for distortion in the rate of return.

There is recognition of the need for generally agreed guidance for IFIs on accounting presentations for income statements, balance sheets, fiduciary and trust activity, and other disclosures. Several organizations are working on various aspects, such as the AAOIFI—which has published a revision of the Basel Capital Adequacy Ratios customized for IFIs<sup>5</sup>—the Institute of Islamic Banking and Insurance in London, the International Association of Islamic Banks in Saudi Arabia, and the new Islamic International Rating Agency in Bahrain. Moreover, bank supervisors are seeking effective prudential oversight of IFIs, and international practice is developing: the newly formed Islamic Financial Services Board (IFSB) in Malaysia is intended to help develop an effective system for supervision and regulation of IFIs and to provide guidance on the appropriate monitoring, measuring, and management of risks in Islamic financial products.

Finally, because of their heavy involvement in fiduciary activity, project finance, and profit/loss sharing, many IFIs have characteristics of mutual funds or other nonbank financial institutions. But the prevailing statistical practice is to classify Islamic financial institutions as deposit takers.<sup>6</sup>

<sup>5</sup>See AAOIFI (1999). There is some supervisory opinion that the more flexible risk-weighting algorithms that will be available under Basel II might prove effective in more precisely describing the types of financial risk facing IFIs.

<sup>6</sup>This practice is described in more detail in paragraph 488 of the *MFSM* (IMF, 2000a).

income but will usually be expense items. *Income taxes* are those taxes that accrue in the period under review and are related to the income, profits, and/or capital gains of deposit takers. Once extraordinary items and taxes are deducted from net income, the total is equal to *net income after tax*.

**4.36** *Dividends* are amounts declared payable in the period under review to the owners of deposit takers after all other expenses have been met, leaving *retained earnings* to be posted to the retained earnings account of capital and reserves.

**Balance sheet***Nonfinancial assets*

**4.37** Nonfinancial assets are all economic assets other than financial assets. A definition of these assets is provided in the discussion below on the sec-

toral balance sheet for nonfinancial corporations (paragraph 4.106).

*Financial assets and liabilities*

**4.38** *Financial assets*<sup>29</sup> are those financial claims over which ownership rights are enforced, from which economic benefits may be derived by their owners, and that are a store of value. Financial claims arise out of contractual relationships between pairs of institutional units, and often such claims entitle the owner (that is, the creditor) to receive one or more payments (such as interest payments) from the institutional unit on which the owner has the claim (the debtor). In addition, some financial assets generate

<sup>29</sup>In the 1993 *SNA*, financial assets also include monetary gold and special drawing rights (SDRs)—financial assets for which there are no counterpart claims. However, in the 1993 *SNA*, by definition, only the official sector, typically the central bank, can be regarded as holding such assets.

holdings gains (and losses) for their owners. When a financial claim is created, a liability of equal value is simultaneously incurred by the debtor as the counterpart to the financial asset.

**4.39** The identification and presentation of the different types of financial assets and liabilities can vary depending on analytical needs and national accounting practice. In the list of FSI ratios, the primary focus is on instruments by functional type, such as loans, equities, securities, and derivatives. Thus, in the *Guide*, the primary classifications of financial assets and liabilities are: *currency and deposits, loans, debt securities*,<sup>30</sup> *shares and other equity (assets), financial derivatives*, and *other assets (or other liabilities)*.

**4.40** *Currency* consists of notes and coins in circulation that are commonly used to make payments. It is usually (but not always) issued either by central banks or government units and is a liability of the units that issue it. Currency has a fixed nominal value. Gold and commemorative coins that are not in circulation as legal tender are classified as nonfinancial assets rather than as currency.

**4.41** *Deposits* include all nonnegotiable financial claims represented by evidence of deposit. Deposits comprise transferable deposits and other deposits. Transferable deposits comprise all deposits in domestic or foreign currency that are (1) exchangeable, without penalty or restriction, on demand at par and (2) directly usable for making third-party payments by check, draft, giro order, direct debit/credit, or other direct payment facility.<sup>31</sup> Other deposits comprise deposits that have restrictions on the number of third-party payments that can be made per period and/or the minimum size of individual third-party payments and so are considered nontransferable. These include the following:

- Sight deposits that permit immediate cash withdrawals but not direct third-party payments.
- Savings and fixed-term deposits, including non-negotiable certificates of deposit.

<sup>30</sup>Known as “securities other than shares” in the 1993 SNA and MFSM.

<sup>31</sup>Shares of money market funds that offer unrestricted check-writing privileges can be regarded as functionally equivalent to deposits and potentially included in broad money. However, in the *Guide*, such assets and liabilities are classified as shares and other equity, because the nature, and hence regulation, of money market funds is different from that of deposit takers.

- Nontransferable deposits denominated in foreign currency.
- Shares or similar evidence of deposit issued by savings and loan associations, building societies, credit unions, and the like, which are (legally or in practice) redeemable immediately or at relatively short notice.
- Repurchase agreements (possibly) (see paragraph 4.48).

**4.42** *Customer deposits* are those considered to be more “stable” and less volatile types of deposits that can be employed to fund long-term lending. It is a series required to calculate an encouraged FSI.

**4.43** Volatility of deposits refers to depositor sensitivity to events that could affect confidence in deposit takers. More specifically, it refers to the likelihood that depositors will, at short notice, withdraw funds in response to a perceived weakness in an individual deposit taker or in the banking system. Determining such a likelihood in advance is difficult, but typically the key factors taken into account are the type of depositor, the existence of insurance coverage, and the maturity of the deposits (remaining maturity). Experience suggests that some types of depositors are less likely to move their funds than others. However, deposits covered by credible insurance schemes are more likely to be a stable form of funding than those not covered. In addition, deposits with a long remaining maturity are likely to be more stable, although the lower the penalties for withdrawal, the less relevant this factor is in determining the likelihood of withdrawal.

**4.44** The *Guide* recommends that the type of depositor be the primary factor in defining customer deposits because of both its relevance and its general applicability. Thus, customer deposits include all deposits (resident or nonresident) except those placed by other deposit takers and other financial corporations (resident and nonresident). The depositors in the excluded sectors are more likely to monitor deposit takers’ financial information, are less likely to be covered by deposit insurance, and perhaps have a fiduciary responsibility to safeguard their assets. They are, therefore, more prone to shifting deposits as risks increase than other depositors. Perhaps because of deposit insurance, household depositors tend to be less aware of the risks, while commercial depositors may have other relationships with banks that make them more reluctant than institutional

investors to move funds.<sup>32</sup> Provided it can be determined that the penalties for withdrawal are high, customer deposits could also include those from the excluded sectors that have a remaining maturity of more than one year.<sup>33</sup>

**4.45** *Loans* include those financial assets created through the direct lending of funds by a creditor to a debtor through an arrangement in which the lender either receives no security evidencing the transactions or receives a nonnegotiable document or instrument. Collateral, in the form of either a financial asset (such as a security) or nonfinancial asset (such as land or a building), may be provided under a loan transaction, though it is not an essential feature. Loans include commercial loans, installment loans, hire-purchase credit, loans to finance trade credit and advances, financial leases, repurchase agreements not classified as a deposit (see paragraph 4.48), and overdrafts. Trade credit and similar accounts receivable/payable are not loans. To meet the requirements of the agreed FSI list, in Table 4.1 loans to other deposit takers (resident and nonresident) are distinguished from other loans, which are attributed by sector as defined in Chapter 2 on a residence basis.

**4.46** If a loan becomes tradable and is, or has been, traded in the secondary market, the loan is reclassified as a debt security instrument. Given the significance of the reclassification, firm evidence of secondary market trading is needed before a debt instrument is reclassified from a loan to a security. Evidence of trading on secondary markets would include the existence of market makers and bid-offer spreads for the debt instrument. A transfer or one-time sale of a loan would not normally constitute a basis for reclassifying the loan as a security.

<sup>32</sup>In discussions on the definition of customer deposits, the idea was raised that large nonfinancial corporations might manage their liquidity similarly to other financial corporations. Given this, compilers might wish to distinguish deposit liabilities of deposit takers into two categories: those held by publicly listed nonfinancial corporations, and those held by unlisted nonfinancial corporations, excluding the former from the calculation of customer deposits. Any metadata accompanying the dissemination of FSI data should explain the coverage of customer deposits.

<sup>33</sup>Another approach that could yield a similar outcome would be to determine customer deposits by type of deposit—that is, (1) deposits known for their “stability,” such as demand deposits, small-scale savings, and time deposits; and/or (2) deposits covered by a (credible) deposit insurance scheme.

**4.47** Two forms of loans require further discussion. A *financial lease* is a contract under which a lessee contracts to pay rentals for the use of a good for most or all of its expected economic life. In this case, the risks and rewards of ownership are transferred from the legal owner of the good, the lessor, to the user of the good, the lessee. The lessee is frequently responsible for the maintenance and repair of the good. Under statistical and accounting conventions, the good is treated as having changed ownership, and a loan liability of the lessee is created. The value of the loan at inception is equal to the value of the good. The loan is repaid through the payment of rental fees (which comprise both interest and principal elements) plus any residual payment at the end of the contract (or, alternatively, by the return of the good to the lessor).<sup>34</sup> The assets that have been leased should be removed from the balance sheet of the lessor.

**4.48** A *securities repurchase agreement* (repo) is an arrangement involving the sale for cash of securities at a specified price with a commitment to repurchase the same or similar securities at a fixed price either on a specified future date (often a few days later) or with an open maturity.<sup>35</sup> Because the risks and rewards of ownership of the security remain with the original owner, the economic nature of the transaction is that of a collateralized loan (or possibly a deposit).<sup>36</sup> In other words, the funds advanced by the security taker to the security provider are classified as a loan (or deposit) asset of the security taker (and a liability of the security provider), and the underlying securities remain on the balance sheet of the security provider, despite the legal change in ownership. A *gold swap*, under which gold is exchanged for other assets, usually foreign exchange, is similar in nature to a repo and is to be recorded similarly. *Securities lending* is similar to a repo, except that noncash collateral in the form of securities is provided, and so no loan is recorded. If the security taker provides cash as collateral, then the arrangement is treated in the same way as a repo. The securities involved remain on the balance sheet of the security provider.

<sup>34</sup>Consistent with this statistical treatment, IASs regard the stream of payments associated with financial leases as substantially the same as blended payments of principal and interest under loan agreements.

<sup>35</sup>An open maturity exists when both parties agree daily to renew or terminate the agreement.

<sup>36</sup>Sellbacks and buybacks are the same as repos in economic effect but are less sophisticated operationally.

**4.49** If securities acquired under a repo or securities-lending arrangement are sold to third parties, the security taker should record on the balance sheet a negative security asset equal to the current market value of the security that was sold.

**4.50** *Specific loan provisions* are the outstanding amount of provisions made against the value of individual loans, collectively assessed groups of loans, and loans to other deposit takers<sup>37</sup> (see also paragraph 4.32).<sup>38,39</sup>

**4.51** *Debt securities* are negotiable<sup>40</sup> financial instruments serving as evidence that units have obligations to settle by means of providing cash, a financial instrument, or some other item of economic value. The debt security provides evidence that the claim exists, is tradable in financial markets, and gives the holder an unconditional right to receive interest and/or principal payments. Examples of debt securities include the following:

- Bills, such as treasury bills;
- Bonds and debentures, including bonds that are convertible into shares;
- Commercial paper;
- Negotiable certificates of deposit;
- Tradable depository receipts;
- Notes issued through revolving underwriting facilities and note-issuance facilities;
- Negotiable securities backed by loans or other assets;
- Loans that have become de facto tradable;
- Preferred stocks or shares that pay a fixed income but do not provide for participation in the distribution of the residual value of the corporation on dissolution;
- Bankers' acceptances; and
- Mandatorily redeemable shares.

<sup>37</sup>Sector-level adjustments for provisions on loans to other deposit takers are discussed in Chapter 5 (paragraph 5.88).

<sup>38</sup>As it is recommended that interest on NPLs should not accrue, specific provisions data should not in principle include specific provisions for interest accrual on NPLs.

<sup>39</sup>If accounting practice is not to accrue interest on NPLs but to include the interest in the value of the loan on the balance sheet offset by an item such as interest in suspense, it is suggested that the interest in suspense be included together with the data for specific provisions on the balance sheet. If this approach is adopted it could be explained in the metadata.

<sup>40</sup>A negotiable financial instrument is one whose ownership is capable of being transferred from one unit to another unit by delivery or endorsement.

**4.52** Some corporate bonds are convertible into shares of the same corporation at the option of the bondholder. If the conversion option is traded separately, then it is recorded as a separate asset and classified as a financial derivative.

**4.53** Table 4.1 includes all the above instruments under the heading of debt securities. However, it is recognized that national practice might separately identify certain types of instruments, such as mortgage-backed securities, government securities, and securities considered to be of a liquid nature.

**4.54** *Shares and other equity* comprise all instruments and records acknowledging, after the claims of all creditors have been met, claims on the residual value of a corporation. Ownership of equity is usually evidenced by shares, stocks, participation, or similar documents. Preferred stocks or shares, which also provide for participation in the distribution of the residual value on dissolution of an incorporated enterprise, are included.<sup>41</sup> Buybacks by a deposit taker of its own equity securities reduce the number of equity securities outstanding.

**4.55** Shares and other equity assets include equity investments in associates, unconsolidated subsidiaries, and reverse equity investments, as well as other equity investments in deposit takers.<sup>42</sup> In the context of domestic data, shares and other equity assets include any share capital provided to foreign branches.

**4.56** *Financial derivatives* are financial instruments that are linked to a specific financial instrument, indicator, or commodity and through which specific financial risks can be traded in financial markets in their own right. Their value depends on the price of the underlying item. Unlike debt instruments, no principal is advanced to be repaid, and no investment income accrues. Typical derivative contracts are futures (exchange-traded forward contracts), interest and cross-currency swaps, forward rate agreements, forward foreign exchange contracts, credit derivatives, and various types of options (see also Heath,

<sup>41</sup>Accounting standard setters agree that not everything commonly called equity qualifies as such. For instance, mandatorily redeemable preferred stocks are liabilities, and so are various kinds of puttable stock, where the stocks are being essentially used as currency.

<sup>42</sup>For sector-level data, the value of the investment in any other deposit taker in the reporting population should be excluded from this item, assets in total, and capital and reserves (see also Box 5.1).

**Box 4.4. The Approach to Valuation and Provisioning in the Guide**

This box explains how the various recommendations regarding valuation and provisioning in the detailed line-by-line description of the items in the financial statement fit together.

The *Guide* prefers valuation methods that can provide the most realistic assessment at any point in time of the value of an instrument or item. For tradable instruments, nonrecognition of market value gains, and particularly of losses, can mislead judgments about financial health and soundness of deposit takers. For non-tradable instruments, the *Guide* acknowledges that nominal value may provide a more realistic assessment of value than the application of market or fair value, but an appropriate provisioning policy is essential. While the *Guide* relies on national practices in identifying such provisions, nonrecognition of losses when they arise would overstate the health and strength of the deposit taker. A distinction is made between specific provisions for losses that are identifiable and general provisions for potential losses that experience suggests could affect a portfolio.

The rest of this box explains how the approach to market valuation and provisions affects the income and expense statement, assets, and capital and reserves. A short section on arrears is also included.

**Income and expense**

The income and expense statement is directly affected by the approach taken on valuation and provisioning.<sup>1</sup>

- Interest income should not include the accrual of any interest on nonperforming assets; in other words, interest income should not be overstated relative to the actual circumstances.
- Provisions for loan losses (and other assets) should reduce net income, thus recognizing losses when they become apparent.
- Gains or losses, unrealized and realized, on financial assets and liabilities valued at market or fair value in the balance sheet should be included in income—a rise in value increasing net income and a loss of value reducing net income.<sup>2</sup> To avoid double counting, any accrued interest recorded for the period is excluded from calculations of gains and losses on financial instruments.
- Gains or losses on any other assets or liabilities that arise and are realized in the reporting period should be included in income. Any revaluation gains and losses already included in

the valuation adjustment from previous periods should be moved to retained earnings.<sup>3</sup>

The *Guide* considers that capturing interest income and interest expense together with the holding gains and losses on financial assets and liabilities for which market or fair value is established is appropriate for measuring the return on assets and on capital and reserves—two core FSLs. Regarding other financial assets and liabilities, to monitor current health, the *Guide* encourages recording losses through the creation of provisions when these losses become apparent and recording realized gains or losses arising during the current reporting period only in current period income.

**Assets**

In the *Guide*, changes in the market or fair value of assets (and liabilities) are reflected on balance sheet. For loans and other assets valued at nominal value, their balance sheet value is reduced by specific provisions<sup>4</sup> or by writing down the value of the asset.

It might be considered appropriate to also value loans excluding general provisions, so that probable losses not attributable to specific instruments are recognized as reducing capital and reserves. While the *Guide* recognizes the need to reduce net income to reflect potential losses that experience suggests may take place in a portfolio, it is not evident that the soundness of the deposit taker has been weakened by such general provisioning. So general provisions are included in the capital and reserves (but not in the narrow measure of capital and reserves). This is in line with the Basel Committee on Banking Supervision's (BCBS) Basel I capital adequacy requirements, which recognize in Tier 2 capital general provisions in capital up to a limit of 1.25 percent of (risk-weighted) assets.

**Capital and reserves**

Changes in market or fair valuation of assets and liabilities affect capital and reserves. Increases in asset values tend to increase capital and reserves, while increases in the value of liabilities tend to decrease capital and reserves. Provisioning can also affect capital and reserves. As noted above, while both specific and general provisions reduce net income, and thus potentially retained earnings, general provisions are posted to capital and reserves.

<sup>1</sup>The treatment of intra-deposit-takers' transactions and positions is discussed in the Text Annex to Chapter 5.

<sup>2</sup>Changes in the market value of equity in associates and unconsolidated subsidiaries, as well as reverse equity investments, are excluded, to avoid the potential for double counting income (see paragraph 4.22).

<sup>3</sup>For unlisted nonfinancial corporations, the same approach can be taken for all financial instruments that relate only peripherally to a firm's primary operating activities.

<sup>4</sup>In Table 4.1, data on loans are presented both before and after adjustment for specific provisions.

1998). Gross market values for financial derivative assets and liabilities should be recorded on the balance sheet and any valuation gains and losses in the income and expense statement.

**4.57** Under a forward-type contract, the counterparties agree to exchange an underlying item—real or financial—in a specified quantity, on a specified date, at an agreed contract (strike) price. In the case of a swaps contract, the counterparties agree to exchange cash flows, determined with reference to price(s) of, for example, currencies or interest rates, according to prearranged rules. At the inception of the contract, risk exposures of equal market value are exchanged, and the contract normally has zero value. But as market prices change, asset and liability positions are created, which may change both in magnitude and direction over time.

**4.58** Under an option contract, the purchaser of the option, in return for an option premium, acquires from the writer of the option the right but not the obligation to buy (call option) or sell (put option) a specified underlying item—real or financial—at an agreed contract (strike) price on or before a specified date. Throughout the life of the contract the writer of the option has a liability and the buyer an asset, although the option can expire worthless; the option will be exercised only if settling the contract is advantageous for the purchaser.

**4.59** The *Guide* prefers that if an instrument such as a security or a loan contains an embedded derivative that is inseparable from the underlying instrument, the instrument is valued and classified according to its primary characteristics, and the embedded derivative is not classified and valued separately.<sup>43</sup> Examples of instruments with embedded derivatives are bonds that are convertible into equity securities, and securities with options for the repayment of principal in currencies that differ from those in which the securities were issued.<sup>44</sup>

<sup>43</sup>If significant amounts of such securities are outstanding, there may be an interest in their separate identification, particularly for securities that can be sold (put) back to the issuer, not least because of the potential impact on the liquidity position of deposit takers.

<sup>44</sup>Under IASs, derivatives embedded in cash instruments are to be accounted for separately unless the entire instrument is fair valued (and the change in fair value is reflected in profit and loss) or the embedded derivative meets the test of being closely related to the underlying cash instrument. This is to prevent such derivatives from escaping “proper” accounting.

**4.60** *Other assets* (or *other liabilities* from the debtor perspective) cover trade credits and advances, prepayments of insurance premiums, and miscellaneous other items due to be received or paid. Miscellaneous other items receivable or payable include accrued but unpaid taxes, dividends (including dividends declared but not yet payable), purchases and sales of securities, rent, wages and salaries, social contributions, social benefits, and similar payments. Definitions of trade credit and advances are provided in the discussion below of the sectoral balance sheets for nonfinancial corporations (paragraph 4.112). If significant provisions are made against these assets, particularly trade credit, compilers are encouraged to separately identify these provisions in the same manner as for loans (see above).

**4.61** *Debt* is defined as the outstanding amount of those actual current and noncontingent liabilities that require payments of principal and/or interest by the debtor at some point(s) in the future. Thus, debt comprises those financial liabilities that are currency and deposits, loans, debt securities, and other liabilities.

**4.62** “*Capital and reserves*” is defined as the equity interest of the owners in an enterprise and is the difference between total assets and liabilities.<sup>45</sup> It represents the amount available to absorb unidentified losses.

**4.63** In the *Guide*, total capital and reserves include the following.

- *Funds contributed by owners* comprise the total amount from the initial and any subsequent issuance of shares, stocks, or other forms of ownership of deposit takers. This item is valued as the nominal amount of proceeds from the initial and subsequent issuances. It is not revalued.
- *Retained earnings*, or rather, changes in retained earnings, reflect all after-tax profits that are neither distributed to shareholders nor transferred to or from the reserve and valuation accounts. Deducted (included) is any goodwill arising from the pur-

<sup>45</sup>At the sector level, the proportionate ownership share of a deposit taker in the capital and reserves of an associate deposit taker, as well as equity investments in other deposit takers that are also in the reporting population, should be excluded from capital and reserves (see also Box 5.1).

chase (sale) of a stake in an associate or subsidiary (or reverse equity investment stake).<sup>46</sup> This item is also valued at the nominal amount of earnings that have been retained and is not revalued.

- *General and special reserves* are reserves that reflect appropriations from retained earnings. These reserves are also to be valued at nominal value and are not revalued.
- *Provisions* are included in the income and expense statement (see paragraph 4.32), other than specific provisions. Specific provisions reduce the value of the relevant asset in the balance sheet.<sup>47</sup>
- *Valuation adjustment* is the counterpart to net changes in the market or fair values of assets and liabilities on the balance sheet (excluding any such changes that affect other items within capital and reserves, such as retained earnings). Unrealized gains or losses on assets or liabilities that have been reflected in the valuation adjustment and are now realized should be transferred to retained earnings.<sup>48</sup> The *Guide* recommends that this item include only valuation changes arising from nonfinancial assets, equity investments in associates and unconsolidated subsidiaries, and reverse investments that have not been reflected in retained earnings.

**4.64** Tier 1 capital is the core measure of capital (see paragraph 4.70). In the absence of Tier 1 data (as in

<sup>46</sup>The deduction of goodwill is consistent with the approach in the Basel Capital Accord. See supervisory deductions discussed below (paragraph 4.73).

<sup>47</sup>If all or part of a loan is considered uncollectible, in some economies this amount is “written (charged) off” against the loan loss provision—rather than being recorded as a specific provision—reducing the value of the loan, with any subsequent recovery being credited to the provision. Practices as to the timing of write-offs vary among countries; for instance, in some countries, a loan cannot be written off until all legal procedures have been completed.

<sup>48</sup>At the sector level, for fixed assets, any gain or loss on sale to another deposit taker in the reporting population should not affect retained earnings in capital and reserves because the gain or loss has not been realized by the sector. However, it is recognized that maintaining records of gains and losses on fixed assets by transactor and only transferring them to retained earnings once the asset is sold to another sector would create considerable practical problems in that chains of sales, perhaps spread over years, would need to be monitored. So it is recommended that no sector-level adjustment be made to the components of capital and reserves for gains and losses on sales of fixed assets to other deposit takers in the reporting population but that—subject to confidentiality constraints—any significant sales be identified. This will permit the impact on sector-level capital and reserves to be assessed.

the case of units not subject to Basel Capital Adequacy guidelines), the data for funds contributed by owners together with retained earnings (including those earnings appropriated to reserves) could be identified.<sup>49</sup>

**4.65** Under consolidated reporting, when the parent has less than full ownership of a subsidiary, the capital and reserves attributable to minority shareholders in the subsidiary are included in capital and reserves, because the focus of FSIs is on the total capital and reserves of the deposit takers in the reporting population.

### Memorandum series

#### *Other series required to calculate the FSIs*

**4.66** Some of the series required to calculate the FSIs are not directly available from the financial statements described above. They are included as memorandum items to the financial statement. These series fall into three categories: (1) supervisory-based series, (2) series that provide a further analysis of the balance sheet, and (3) balance-sheet-related series. Series that go beyond those required to calculate these FSIs, but which in the discussions on the *Guide* were considered particularly relevant for macroprudential analysis, are set out in Appendix III.

#### *Supervisory-based series*

**4.67** These are series to be directly sourced from supervisory information because the definitions conform with supervisory guidance. The *Guide* relies on national practice in calculating regulatory capital and risk-weighted assets data series.

**4.68** The Basel Committee on Banking Supervision has developed a specific *regulatory definition of capital* that is used as the numerator in its official regulatory capital adequacy ratio. The definition extends beyond purely capital and reserve account items identified above to include several specified types of subordinated debt instruments that need not be repaid if the funds are needed to maintain minimum capital

<sup>49</sup>This is known as the “narrow measure” of capital and reserves in the *Guide*.

levels.<sup>50</sup> All internationally active banks are expected to have regulatory capital of at least 8 percent of *risk-weighted assets*. National supervisors may require a higher ratio and have some leeway in establishing the specific standards for their country.<sup>51</sup>

**4.69** There are three tiers of regulatory capital.<sup>52</sup>

**4.70 Tier 1 capital** comprises paid-up shares and common stock—issued and fully paid ordinary shares/common stock and perpetual noncumulative preference shares—and disclosed reserves created or increased by appropriations of retained earnings or other surplus.<sup>53</sup> The latter include, *inter alia*, share premiums, retained profit, general reserves, and legal reserves,<sup>54</sup> and are considered to be freely and immediately available to meet claims against the bank.<sup>55</sup>

**4.71 Tier 2 capital** consists of (1) undisclosed reserves—that part of accumulated retained earnings that banks in some countries may be permitted to maintain as an undisclosed reserve; (2) asset revaluation reserves with regard to fixed assets, and with regard to long-term holdings of equities valued in the balance sheet at historic cost but for which there are

“latent” revaluation gains; (3) general provisions/general loan loss reserves (up to 1.25 percent of risk assets);<sup>56,57</sup> (4) hybrid instruments that combine the characteristics of debt and equity and are available to meet losses; and (5) unsecured subordinated debt with a minimum original fixed term of maturity of more than five years and limited-life redeemable preference shares. Tier 2 capital and subordinated debt cannot exceed 100 percent and 50 percent, respectively, of Tier 1 capital.

**4.72 Tier 3 capital** comprises medium-term debt of two-year or longer original maturity with “lock-in provisions” that stipulate that neither principal nor interest need be paid if the payment reduces the bank’s overall capital to less than the minimum capital requirement. Tier 3 capital is intended to cover only market risk and is limited to 250 percent of Tier 1 capital.

**4.73 Supervisory deductions** cover goodwill (see paragraph 4.110), as a deduction from Tier 1 capital. With regard to total capital, supervisory deductions cover investments in unconsolidated banking and financial subsidiaries, and, at the discretion of national authorities, investment in capital of other banks and financial institutions.<sup>58</sup>

**4.74 Risk-weighted assets** include currency and deposits, loans, securities, and other on-balance-sheet assets. Assets are weighted by factors representing their credit riskiness and potential for default. Through the use of credit conversion factors, the credit risk of off-balance-sheet items, such as credit line commitments and letters of credit that serve as financial guarantees, is also taken into account

<sup>50</sup>Basel Core Principle 6 states, “Banking supervisors must set prudent and appropriate minimum capital adequacy requirements for all banks. Such requirements should reflect the risks that the banks undertake, and must define the components of capital, bearing in mind their ability to absorb losses. At least for internationally active banks, these requirements must not be less than those established in the Basel Capital Accord and its amendments.”

<sup>51</sup>At the time of writing, a revised Basel Capital Accord was being discussed. Therefore, this section provides an overview of the key aspects of the Accord rather than all the specific details. Information on the latter is available at the BIS website (<http://www.bis.org>).

<sup>52</sup>The following discussion is drawn from BCBS (2001a, Chapter 1, Annex 1).

<sup>53</sup>In the European Union, the directive on own funds of credit institutions recommends that significant operating losses be included in the Tier 1 capital calculations but that national supervisors have full discretion over the treatment of small operating losses and operating profits of any size. This type of information could be included in any metadata disseminated with FSI information.

<sup>54</sup>They also include general funds, such as funds for general banking risk, subject to four criteria: (1) allocations to the funds must be made out of posttax retained earnings or out of pretax earnings adjusted for all potential tax liabilities, (2) the funds and movements into or out of them must be disclosed separately in the bank’s published accounts, (3) the funds must be available to a bank to meet losses for unrestricted and immediate use as soon as they occur, and (4) losses cannot be charged directly to the funds but must be taken through the profit and loss account. See BCBS (2001a).

<sup>55</sup>Tax-deferred assets should be accounted for consistently with the Basel Capital Accord.

<sup>56</sup>Provisions held against specific assets are excluded from being part of capital.

<sup>57</sup>At the time of writing, the BCBS is proposing that under the revised Basel Capital Accord, banks adopting the Internal Rating Based (IRB) approach to measuring risk-weighted assets would treat unexpected and expected losses separately. In particular, the capital requirements under the IRB approach would be based solely on unexpected losses. For expected losses, banks would compare the estimated amount of expected losses with the total amount of provisions made, including both general and specific provisions, and any shortfall in provisions would be deducted 50 percent from Tier 1 and 50 percent from Tier 2 capital. Moreover, any excess in provisions would be eligible for inclusion in Tier 2 capital, up to a maximum of 20 percent of Tier 2 capital. This treatment of excess amounts would replace the current inclusion of general provisions (up to 1.25 percent of risk assets) in Tier 2 capital for those banks that adopt the IRB approach.

<sup>58</sup>In the European Union, holdings of own shares is a common deduction from Tier 1 capital.

in determining regulatory capital requirements.<sup>59</sup> Another component of total risk-weighted assets is used to incorporate a capital charge for market risks.<sup>60</sup>

**4.75** How does the total regulatory capital measure of capital compare with the measure of capital and reserves in the sectoral balance sheet provided in Table 4.1 (after the sector-level adjustments described in the next chapter)? Because of the absence of the application of common accounting standards, measures of regulatory capital and measures of sectoral balance sheet capital can differ among countries because of different national practices. In this context, only some general statements can be made.

- Both regulatory capital and the sectoral balance sheet measure of capital cover equity capital, reserves (both disclosed and undisclosed), and general provisions and thus in this sense are the same. Goodwill is deducted from both. However, in the regulatory measure there is a limit on the amount of general provisions (1.25 percent of risk-weighted assets) that can be included. Moreover, the amounts posted to reserves can differ due to different accounting approaches, such as the treatment of gains and losses on financial instruments.
- The regulatory measure covers certain debt instruments, such as subordinated debt, which are excluded from the sectoral balance sheet measure.
- At the sector level, intrasector equity investments in both related and unrelated deposit takers are excluded from the sectoral balance sheet measure. As noted above, at national discretion investments in unrelated deposit takers can be included in regulatory capital calculations.<sup>61</sup>
- Non-deposit-takers can be consolidated for the calculation of regulatory capital (or investments in such entities deducted from regulatory capital), but this is not preferred for the calculation of the sectoral balance sheet measure.

**4.76** “*Large exposures*” refers to one or more credit exposures to the same individual or group that exceed

a certain percentage of regulatory capital, for example 10 percent (see BCBS, 1991). The number of large exposures of deposit takers is identified under the national supervisory regime.

*Series that provide a further analysis of the balance sheet*

**4.77** To calculate the agreed FSIs there is a need for a number of series that are subtotals of balance sheet totals and that provide a further analysis of the balance sheet beyond that presented in the main table.

**4.78** *Liquid assets* are those assets that are readily available to an entity to meet a demand for cash. While it may be possible to raise funds through borrowing, conditions in the market may not always be favorable, and experience has shown the necessity for deposit takers to maintain a prudent level of liquid assets. For a financial asset to be classified as a liquid asset, the holder must have the reasonable certainty that it can be converted into cash with speed and without significant loss under normal business conditions.<sup>62</sup>

**4.79** To some extent, whether an instrument is considered liquid or not depends on judgment and is influenced by market conditions. For example, cash, transferable deposits, and deposits that permit immediate cash withdrawals are typically liquid and are included in liquid assets, while nontraded instruments with a long time until maturity are not. Other deposits provide certainty of value but may not be readily convertible into cash because of restrictions on withdrawals prior to maturity. Conversely, tradable securities, particularly those issued by the government or the central bank, might be readily converted into cash through sale on the secondary market, but their realizable value depends on the market price at the time of sale.

**4.80** In the *Guide*, *liquid assets* comprise (1) currency; (2) deposits and other financial assets that are available either on demand or within three months or less (although deposit takers’ deposits and other non-traded claims with other deposit takers included in the

<sup>59</sup>As noted above, at the time of writing the Basel Capital Accord is being revised.

<sup>60</sup>In the 1996 Amendment to the Basel Capital Accord to incorporate market risks, the measure of capital charges against market risk as calculated by a deposit taker is multiplied by 12.5 and added to the sum of risk-weighted assets for credit risk purposes.

<sup>61</sup>In addition, supervisors assess the appropriateness of recognizing in consolidated capital the minority interest that arises from the consolidation of less than wholly owned banking (or other financial) entities. No such assessment is undertaken for the sectoral balance sheet data.

<sup>62</sup>In the discussions on the draft *Guide*, the possibility was raised of a deposit taker owning a very short-term asset that, while liquid in nature, might not be liquid in reality. This could come about if the deposit taker failed to renew the credit as it fell due, causing the debtor to face severe business consequences that would also have implications for the deposit taker. In such circumstances, the asset should not be included in liquid assets.

reporting population are excluded);<sup>63</sup> and (3) securities that are traded in liquid markets<sup>64</sup> (including repo markets) that can be readily converted into cash, with insignificant risk of change in value under normal business conditions. Typically, securities issued by the government and/or the central bank in their own currency meet the criteria to be classified as liquid assets, and in a number of markets high credit-quality private securities—both debt and equity securities—also meet the criteria. For instance, if a financial instrument is eligible under normal business conditions for repurchase operations or for rediscount at the central bank, then it can be classified as a liquid asset in that economy. It is recommended that securities issued by private entities with less than an investment grade rating be excluded from the concept of liquid assets, subject to national supervisory guidance.

**4.81** Because of the difficulty in defining and measuring liquidity, there is merit in compiling more than one measure. For instance, the instruments in (1) and (2) in the paragraph above can be classified as *core liquid assets*, while the instruments in (3) can be added to provide a *broad measure of liquid assets*, as the latter instruments may lose their liquidity characteristics during times of financial stress. Moreover, distinguishing between foreign- and domestic-currency-denominated liquid assets can be important, particularly in periods of financial stress.

**4.82** The availability of foreign exchange in the local market may also be an important consideration in assessing the liquidity of an institutional unit or sector in some countries. For example, a currency mismatch between liquid assets and liabilities, particularly in an environment of restricted access to foreign exchange, can impede the ability to meet foreign-currency-denominated obligations with sales of liquid assets that are denominated in local currency.

<sup>63</sup>This is recommended because, while for individual deposit takers such deposits are a form of liquid assets and could be separately identified, for the deposit-taking sector as a whole such deposits are not an “external” source of liquidity.

<sup>64</sup>Market liquidity, discussed further in Chapter 8, can be measured by certain market characteristics: (1) tightness—measured by the difference between prices at which a market participant is willing to buy and sell a security (bid-offer spread); (2) depth—typically proxied by the ratio of average trading volume over a given period of time to the outstanding volume of securities (the *turnover ratio*); (3) immediacy—the speed with which orders can be executed and settled; and (4) resilience—the speed at which price fluctuations resulting from trades are dissipated.

**4.83** *Short-term liabilities* are the short-term element of deposit takers’ debt liabilities (line 28) and the net (short-term, if possible) market value financial derivatives position (liabilities [line 29] less assets [line 21]);<sup>65</sup> the definition excludes such liabilities to other deposit takers in the reporting population. Preferably “short term” should be defined on a remaining maturity basis, although original maturity is a (more limited) alternative.

**4.84** To improve the cross-country comparability of data, the *Guide* recommends that loans (and other assets)<sup>66</sup> should be classified as *NPL* when (1) payments of principal and interest are past due by three months (90 days) or more, or (2) interest payments equal to three months (90 days) interest or more have been capitalized (reinvested into the principal amount), refinanced, or rolled over (that is, payment has been delayed by agreement).<sup>67</sup> The 90-day criterion is the time period that is most widely used by countries to determine whether a loan is nonperforming (see Cortavarria and others, 2000, p. 11). In addition, NPLs should also include those loans with payments less than 90 days past due that are recognized as nonperforming under national supervisory guidance—that is, evidence exists to classify a loan as nonperforming even in the absence of a 90-day past due payment, such as when the debtor files for bankruptcy. Indeed, the *Guide* regards the guideline of 90 days past due as an outer bound and does not intend to discourage stricter approaches. The amount of loans (and other assets) recorded as nonperforming should be the gross value of the loan as recorded on the balance sheet, not just the amount that is overdue.

**4.85** After a loan is classified as nonperforming, it (and/or any replacement loan(s)) should remain classified as such until written off or payments of interest and/or principal are received on this or subsequent loans that replace the original loan. It is recognized that some national supervisory practices

<sup>65</sup>The use of the net position in derivatives is recommended for the reasons explained in paragraph 4.90.

<sup>66</sup>Information on other (than loan) nonperforming assets is not required to calculate any FSI. However, such information allows a complete picture of deposit takers’ nonperforming assets and hence supports macroprudential analysis.

<sup>67</sup>It is recommended that a period of time elapse between payments being missed and the loan being classified as nonperforming, because payments might be missed for a number of reasons, and such a lapse of time helps indicate that orderly repayment of the debt is in jeopardy. The *Guide* recognizes that practice as to the time that passes before such classification differs among countries.

might be stricter in that loans are classified as non-performing until payments are received for specified periods of time. As noted above, the *Guide* does not intend to discourage stricter approaches.

**4.86** Replacement loans include loans arising from rescheduling or refinancing the original loan(s) and/or loans provided to make payments on the original loan.<sup>68</sup> While these loans may be granted on easier than normal commercial terms, provided the terms and conditions of the replacement loan are complied with by the debtor, and subject to national supervisory guidance, the loan is no longer classified as an NPL. However, in discussions on the *Guide*, about assessing the credit quality of the loan portfolio, there was strong support among experts about identifying the share of replacement loans within total loans. For this reason, Appendix III provides a memorandum item to Table 4.1 on restructured loans.

**4.87** Given the various practices, when disseminating data on NPLs it is essential that metadata describing the practice adopted be disseminated.

**4.88** *Residential real estate loans* are those loans that are collateralized by residential real estate. Residential real estate includes houses, apartments, and other dwellings (such as houseboats and mobile homes), and any associated land intended for occupancy by individual households. *Commercial real estate loans* are those loans that are collateralized by commercial real estate, as well as loans to construction companies and loans to companies active in the development of real estate (including those companies involved in the development of multihousehold dwellings). Commercial real estate includes buildings, structures, and associated land used by enterprises for retail, wholesale, manufacturing, or other such purposes.

**4.89** The *geographic distribution of loans* refers to an attribution of loans on the basis of the residence of the immediate counterpart—that is, the country of residence of the debtor. While country circumstances will differ, a regional classification of lending is encouraged, with perhaps additional detail on lending

to residents of other countries that may be of particular relevance, such as neighboring countries. The regional groupings provided in the dissemination framework in Chapter 12 are based on the IMF's *World Economic Outlook* classification.

**4.90** For deposit takers, *foreign currency loans* and *foreign currency liabilities* are those assets and liabilities that are payable in a currency other than the domestic currency and those that are payable in domestic currency but with the amounts to be paid linked to a foreign currency (foreign-currency-linked).<sup>69</sup> For related financial derivative liabilities it is recommended that the net market value position (liabilities less assets) be included in the foreign currency liability measure rather than the gross liability position because of the market practice of creating offsetting contracts, and the possibility of a forward-type instrument switching from an asset to a liability position and vice versa from one period to the next. Domestic currency is defined in paragraph 3.45.

**4.91** A deposit taker's *net open position in equities* is described in more detail in Chapter 6 (paragraphs 6.40 to 6.43).

**4.92** The *net open position in foreign currency for on-balance-sheet items* and the *total net open position in foreign currency* are calculated by summing the net position for each foreign currency and gold into a single unit of account (the reporting currency). The calculation is described in more detail in Chapter 6 (paragraphs 6.31 to 6.38).

#### ***Balance-sheet-related series***

**4.93** To compile the agreed FSIs there is also a need for a number of series that are derived from the balance sheet but require additional information or calculation.

**4.94** *Exposures of the largest deposit takers to the largest entities in the economy* is the total exposure of the five largest deposit takers (the number may vary somewhat depending on national circumstances) to the five largest resident non-deposit-taker entities measured by asset size (including all branches and subsidiaries) in both the other financial corporations sector and nonfinancial corporations sector; this is in addition to the exposure to the general government. Total exposures include all forms of debt assets of the

<sup>68</sup>Types of restructuring include reductions in principal, reductions in the amounts due at maturity, periods of no payments on the loan (grace period), extension of maturity dates, and reductions in interest rates to below market rates or below the deposit taker's cost of funds.

<sup>69</sup>In the *MFSM*, such instruments are classified as domestic-currency-denominated.

deposit taker, equity securities owned, and the net asset position in financial derivatives.<sup>70</sup> Preferably, the value of contingent liabilities of the type described in Chapter 3 (paragraphs 3.12 to 3.19) should also be included, consistent with the supervisory approach. The focus is on gross exposures and the concept of maximum loss, consistent with the supervisory approach. However, deposit takers might take steps to reduce the credit risk (so-called credit risk mitigation), for example through requiring the provision of collateral. Any disseminated data should meet national confidentiality commitments.

**4.95** *Exposure to affiliated entities and other connected counterparties* is otherwise known as connected lending. It is to be calculated by summing the total exposures of each deposit taker to its affiliated entities (including its parent entity, such as an insurance corporation) in other sectors, including nonresident entities, and exposures to directors and other employees, as well as exposures to shareholders or owners of the deposit taker. The definition of exposures is the same as in the previous paragraph.

### Other Financial Corporations

**4.96** The sectoral balance sheet statement for *other financial corporations* (OFCs) is set out in Table 4.2. The definition of balance sheet series presented is the same as for the corresponding series in Table 4.1.

**4.97** The sectoral balance sheet for *other financial corporations* includes the separate identification of *insurance technical reserves*. Such reserves include (1) net claims of households on life insurance reserves and pension fund—although held and managed by these entities, these reserves are considered to be owned by households; (2) prepayments of premiums by policyholders; and (3) reserves for outstanding and valid claims—such amounts are considered to be claims of the policyholder.

**4.98** *Shares and other equity* assets on the balance sheet include such claims on associates, unconsolidated subsidiaries, and reverse equity investments.<sup>71</sup>

<sup>70</sup>If significant, the gross asset position could also be monitored because, if the counterparty fails, potential losses on financial derivative contracts may be closer to the gross than the net position.

<sup>71</sup>For sector-level data, the value of the investment in any other financial corporation in the reporting population should be excluded from this item, assets in total, and capital and reserves (see also Box 5.2).

**Table 4.2. Other Financial Corporations**

#### Balance Sheet<sup>1</sup>

1. **Total assets** (= 2 + 3)
2. *Nonfinancial assets*
3. *Financial assets* (= 4 through 10)
4. Currency and deposits<sup>2</sup>
5. Loans<sup>2</sup>
6. Debt securities<sup>2</sup>
7. Shares and other equity
8. Insurance technical reserves<sup>2</sup>
9. Financial derivatives<sup>2</sup>
10. Other assets<sup>2</sup>
11. *Liabilities* (= 17 + 18)
12. Currency and deposits
13. Loans
14. Debt securities
15. Insurance technical reserves
16. Other liabilities
17. *Debt* (= 12 to 16)
18. Financial derivatives
19. Capital and reserves
20. **Balance sheet total** (= 11 + 19 = 1)

<sup>1</sup>Data on assets are sufficient to calculate the agreed FSLs for other financial corporations. Liabilities as well as capital and reserves are included in the table to illustrate how asset data can be viewed within an internally consistent balance sheet.

<sup>2</sup>To understand the interconnections among other financial corporations, separate identification of claims on other other financial corporations in the reporting population is encouraged.

In the case of domestic data, shares and other equity assets also include any share capital provided to foreign branches.

### Nonfinancial Corporations

**4.99** Table 4.3 sets out the sectoral financial statement for nonfinancial corporations.

#### Income and expense

**4.100** *Operating income* of a nonfinancial corporation is the revenue from the *sales of goods and services* (excluding taxes on goods and services) less the *cost of those sales*. The cost of sales includes personnel (staff) costs (defined in paragraph 4.31); costs of materials purchased for the production process; fixed and variable production overheads (including depreciation expense or an allocation thereof); rentals paid on buildings, other structures, and equipment; rents paid on land and subsoil assets; royalties paid for the use of other produced or nonproduced assets; distri-

**Table 4.3. Nonfinancial Corporations**

| Income and Expense Statement   | Balance Sheet                                    |
|--|--|
| 1. Revenue from sales of goods and services (excluding indirect sales taxes)         | 13. <b>Total assets</b> (= 14 + 17)              |
| 2. Cost of sales   | 14. <i>Nonfinancial assets</i>                   |
| 3. <i>Net operating income</i> (= 1 minus 2)   | 15. <i>Produced</i>                              |
| 4. Interest income   | <i>Of which:</i> (i) Fixed assets                |
| 5. Interest expense  | (ii) Inventories                                 |
| 6. Other income (net)  | 16. <i>Nonproduced</i>                           |
| 7. <i>Net income (before extraordinary items and taxes)</i><br>(= 3 + 4 minus 5 + 6) | 17. <i>Financial assets</i>                      |
| 8. Extraordinary items   | 18. Currency and deposits                        |
| 9. Corporate income taxes  | 19. Debt securities <sup>1</sup>                 |
| 10. <i>Net income after taxes</i> (= 7 minus (8 + 9))                                | 20. Shares and other equity                      |
| 11. Dividends payable  | 21. Trade credit <sup>1</sup>                    |
| 12. <i>Retained earnings</i> (= 10 minus 11)   | 22. Financial derivatives <sup>1</sup>           |
|  | 23. Other assets <sup>1</sup>                    |
|  | 24. <i>Liabilities</i> (= 29 + 30)               |
|  | 25. Loans  |
|  | 26. Debt securities                              |
|  | 27. Trade credit                                 |
|  | 28. Other liabilities                            |
|  | 29. <i>Debt</i> (= 25 through 28)                |
|  | 30. Financial derivatives                        |
|  | 31. Capital and reserves                         |
|  | (i) <i>Of which:</i> Narrow capital <sup>2</sup> |
|  | 32. <b>Balance sheet total</b> (= 24 + 31 = 13)  |

**Memorandum series**

*Other series required to calculate the agreed FSIs*

- 33. Interest income receivable from other nonfinancial corporations
- 34. Earnings before interest and tax (item 3 + 4 + 6 minus 33)
- 35. Debt-service payments
- 36. Corporate net foreign exchange exposure for on-balance-sheet items
- 37. Total corporate net foreign exchange exposure

<sup>1</sup>To understand the interconnections among nonfinancial corporations, separate identification of claims on other nonfinancial corporations in the reporting population is encouraged.

<sup>2</sup>Funds contributed by owners plus retained earnings (including appropriations from retained earnings to reserves). Purchased goodwill is excluded.

bution costs including all costs to deliver products to customers, including transportation expense, advertising expense, and depreciation and maintenance of any retail shops; any other costs attributed to sales, such as professional fees, insurance, and research and development costs; taxes other than income taxes, such as taxes on the ownership or use of land and buildings or on labor employed; and any fines and penalties imposed, by courts of law or otherwise, and any amounts payable as compensation to other institutional units for injury and damage.

**4.101** To provide a better measure of current health and soundness, the *Guide* prefers that provisions for estimated costs related to product warranties, when they can be measured reliably (see paragraph 3.18),

be included as a cost of sales and as a general reserve in capital and reserves.<sup>72</sup>

**4.102** When inventories are sold, their value is recognized as an expense in the cost of sales line in the period in which the related revenue is recognized (see also paragraph 4.108). All losses on goods held in inventory—whether through normal wastage or exceptional losses—are also recorded as an expense.

**4.103** In addition to operating income, other sources of income include net *interest income* (interest income less interest expense) and *other income (net)*.

<sup>72</sup>In the 1993 SNA, potential costs are not recognized as expenses, or in any other item in the system.

Other income (net) encompasses rents, rentals, and royalties receivable (payable); income from holdings of shares and other equity; gains or losses arising during the period on financial instruments and on the sales of fixed assets; and any amounts receivable (payable) by nonfinancial corporations arising from compensation for damage or injury.

**4.104** *Rents, rentals, and royalty income receivable (payable)* is income arising from rents received for the use of land and the right to extract (or explore for) subsoil assets; rentals from buildings, other structures, and equipment; and royalties for the use of other produced and nonproduced assets (for example, films and music). *Income from holdings of shares and other equity* includes dividends declared payable in the period by other corporations or cooperatives in which nonfinancial corporations have shares and other equity stakes,<sup>73</sup> and the prorated share—on the basis of the share of equity owned—of net income after tax from associates, unconsolidated subsidiaries, and reverse equity investments, and, for the compilation of domestic data, from foreign branches.<sup>74,75</sup> The term “*gains and losses on financial instruments*” is defined as for deposit takers (see paragraph 4.22); however, for unlisted companies, gains and losses on financial instruments that relate only peripherally to a firm’s primary operating activities can be measured as the difference between the sale value and the balance sheet value at the previous end-period. *Gains (or losses) from sales of fixed assets* are measured as the difference between the sale value and the balance sheet value at the previous end-period.

**4.105** As with deposit takers, *extraordinary items* cover events that are extraordinary and rare by the nature of the event or transaction in relation to the business ordinarily carried out by the enterprise. *Corporate income taxes* are those taxes payable by the non-

financial corporations that are related to its income.<sup>76</sup> The amount of income subject to tax is usually less than total income because various deductions are permitted. After taxes are deducted, the total is *net income after tax*, and after dividends payable, *retained earnings* are left to be posted to capital and reserves.

## Balance sheet

### Nonfinancial assets

**4.106** By definition, nonfinancial assets provide benefits to their owners but do not represent claims on other units. Most nonfinancial assets provide benefits either through their use in the production of goods and services or in the form of property income. Nonfinancial assets can come into existence as outputs from a production process (for example, machinery), be naturally occurring (for example, land), or be constructs of society (for example, patented entities). Fixed assets, inventories, and valuables are all forms of *produced assets*, while examples of *nonproduced assets* include land and patented entities.

**4.107** *Fixed assets* are produced assets that are used repeatedly or continuously in processes of production for more than one year. Included are tangible fixed assets (dwellings and other buildings and structures, machinery and equipment, and cultivated assets such as livestock and orchards) and intangible fixed assets (such as the “capitalization” of mineral exploration expenses and computer software), whose use in production is restricted to the units that have established ownership rights over them or to other units licensed by the latter.

**4.108** *Inventories* are goods held by the institutional unit for sale, use in production, or use at a later date. They can be materials and supplies, works in progress, finished goods, or goods for resale. The *Guide* prefers that inventories be valued at market value (that is, the current purchaser’s price) with any valuation gains included in the valuation adjustment and then in retained earnings when the inventories are sold. However, it recognizes the difficulties in implementing such an approach and that in this complex field compilers may need to follow commercial accounting practices when recording inventories as assets or in sales.

<sup>73</sup>To avoid double counting of income before extraordinary items and taxes at the sector level, dividends receivable from other nonfinancial corporations in the reporting population should be excluded from this item and included instead (with a negative sign) in the dividends payable line. Thus, the data for dividends payable to, and receivable from, other nonfinancial corporations in the reporting population will net to zero in this line.

<sup>74</sup>See also Box 5.2, as the treatment of associates in the accounts of nonfinancial corporations is the same as for deposit takers.

<sup>75</sup>Income from holdings of equity and other shares also covers withdrawal of income from a quasi corporation by the owner. Only withdrawal of income from the net income earned by the quasi corporation should be included.

<sup>76</sup>Tax payable is not necessarily the same as tax expense, since the latter includes deferred tax.

**4.109** *Valuables* are produced assets that are not used primarily for the purpose of production or consumption but are held as stores of value over time. They can be precious metals and stones, antiques and other art objects, or other valuables, such as collections of jewelry.

**4.110** *Nonproduced assets* are assets needed for production that have not been produced, such as land, subsoil assets, water resources, and certain intangible assets such as patented entities, leases, and other transferable contracts relating to nonfinancial assets. Nonpatented know-how is not recognized as an asset in the *Guide* because there is no legal evidence of ownership rights. This treatment may differ from commercial accounting, where know-how that is not patented can be included on the balance sheet if its value can be reliably measured, on the grounds that by keeping that know-how secret, an enterprise controls the benefits that are expected to flow from it. The value of patent protection is amortized over time following commercial accounting standards.<sup>77</sup> Goodwill acquired on purchasing an associate or unconsolidated subsidiary stake (or adding to it)—that is, the excess of the cost of an acquired entity over the market or fair value of the net assets acquired—is deducted from (the narrow measure of) capital and reserves and is not an asset of the acquirer.<sup>78</sup> Therefore, there is no goodwill to be amortized in income in future periods.

#### *Financial assets and liabilities*

**4.111** The definitions of balance sheet series presented in this table are the same as for the corresponding series in Table 4.1.

**4.112** The sectoral balance sheet for nonfinancial corporations separately identifies *trade credit*. Trade credits and advances include (1) trade credit extended directly to purchasers of goods and services and

(2) advances for work that is in progress or is to be undertaken, such as progress payments made during construction or for prepayments of goods and services. Trade credit does not include loans, debt securities, or other liabilities that are issued to finance trade credit. So, trade-related loans provided by a third party, such as a deposit taker, to an exporter or importer are not included in this category but are included under *loans*.

**4.113** *Shares and other equity* assets include such claims on associates, unconsolidated subsidiaries, and reverse equity investments. For data compiled on a domestic basis, shares and other equity assets also include any share capital provided to foreign branches.<sup>79</sup>

**4.114** *Capital and reserves* is otherwise known as equity. As in the case of deposit takers, funds contributed by owners plus retained earnings (including those earnings appropriated to reserves) could be identified as a narrow measure of capital and reserves. However, in many countries there is a paucity of sectoral information on nonfinancial corporations, and in calculating FSI data for this sector, preference is given to total capital and reserves.

#### **Memorandum series**

##### *Other series required to calculate the agreed FSIs*

**4.115** *Interest income receivable from other nonfinancial corporations* is that amount of interest income (line 4) that is receivable from other nonfinancial corporations that are also in the reporting population.

**4.116** *Earnings before interest and tax (EBIT)* is defined as operating income (item 3) plus interest income (item 4) plus other income (net) (item 6) less interest receivable from other nonfinancial corporations (item 33). Interest expenses are excluded by definition. Interest receivable from other nonfinancial corporations is deducted from earnings before interest and tax data to ensure that sector earnings are not exaggerated by such intrasector income.

<sup>77</sup>Under the IASB's International Financial Reporting Standards (IFRS), certain acquired intangible assets can be deemed to have an indefinite life; these assets are not amortized but are subject to impairment testing, like goodwill.

<sup>78</sup>Accounting standard setters consider goodwill to be an asset. It is possible that the cost of the acquired entity is less than the market or fair value of the net assets—negative goodwill. If so, it should be determined whether all assets and liabilities being acquired are identified and appropriately valued. If any excess remains after such a determination, the negative goodwill increases (the narrow measure of) capital and reserves. Under the IASB's IFRS, any excess that remains after a rigorous valuation of the net assets acquired is a gain in profit and loss.

<sup>79</sup>For sector-level data, the value of the investment in any other nonfinancial corporation in the reporting population should be excluded from this item, total assets, and capital and reserves (see also Box 5.2).

Table 4.4. Households

| Income and Expense Statement  | Balance Sheet                                  |
|---|--|
| Sources of income   | 7. <b>Total assets</b> (= 8 + 11)              |
| 1. Wages and salaries from employment   | 8. <i>Nonfinancial assets</i> (= 9 + 10)       |
| 2. Property income receivable   | 9. Residential and commercial real estate      |
| 3. Current transfers (e.g., from government)  | 10. Other                                      |
| 4. Other  | 11. <i>Financial assets</i> (= 12 through 16)  |
| 5. Less taxes, including social security contributions, and other current transfers | 12. Currency and deposits                      |
| 6. <i>Gross disposable income</i> (= 1 + 2 + 3 + 4 – 5)                             | 13. Debt securities                            |
|   | 14. Shares and other equity                    |
|   | 15. Financial derivatives                      |
|   | 16. Other assets                               |
|   | 17. <i>Liabilities</i> (= 20 + 21)             |
|   | 18. Loans                                      |
|   | 19. Other liabilities                          |
|   | 20. <i>Debt</i> (= 18 + 19)                    |
|   | 21. Financial derivatives                      |
|   | 22. <i>Net worth</i>                           |
|   | 23. <b>Balance sheet total</b> (= 17 + 22 = 7) |
| <b>Memorandum series</b>  |  |
| Other series required to calculate the agreed FSIs                                  |  |
| 24. Debt-service payments (interest and principal)                                  |  |
| 25. Debt collateralized by real estate  |  |

**4.117** *Debt-service payments* are interest and principal payments made on outstanding debt liabilities within the specified time period of the statement. Such payments always reduce the amount of debt outstanding. Interest payments are those periodic payments<sup>80</sup> that meet interest costs arising from the use of another entity's funds, and principal payments are all other payments that reduce the amount of principal outstanding.

**4.118** The *corporate net foreign exchange exposure for on-balance-sheet items* and the *total corporate net foreign exchange exposure* are calculated by summing the net positions for each foreign currency and gold into a single unit of account (the reporting currency). The calculation is described in more detail in Chapter 6 (paragraphs 6.31 to 6.38).

### Households

**4.119** The financial statement for households is set out in Table 4.4.

<sup>80</sup>For long-term debt instruments, interest costs paid periodically are defined as those to be paid by the debtor to the creditor annually or more frequently; for short-term instruments, that is, with an original maturity of one year or less, interest costs paid periodically are defined as those to be paid by the debtor to the creditor before the redemption date of the instrument.

### Income and expense

**4.120** The main source of *income* for households is *wages and salaries* (gross of any income tax) from employment. These are payable in cash or kind and are a component of compensation for employment (see also paragraph 4.31).<sup>81</sup> Other major sources of income include *property income receivable* (interest, dividends, and rent) and *current transfers*, including those from general government. *Other* income sources include operating income from production activity (gross of consumption of fixed capital).<sup>82</sup> *Gross disposable income* includes these sources of income less current taxes on income and wealth, contributions for social insurance (for example, for old-age insurance paid by households to general government), and other current transfers (such as payments of fines, penalties, and subscriptions to NPISHs).

<sup>81</sup>The other component of compensation of employees is the value of social contributions payable by the employer, but such contributions do not affect personal income and so are not included in the sources of income.

<sup>82</sup>Production within the household sector takes place within enterprises that are directly owned and controlled by members of households, either individually or in partnership with others. When members of households work as employees for corporations, quasi corporations, or the government, the production to which they contribute takes place outside the household sector.

**Balance sheet**

**4.121** The financial assets and liabilities series in Table 4.4 are defined in the same way as in Table 4.1.

**Memorandum series**

**4.122** As noted in paragraph 4.117, *debt-service payments* are interest and principal payments made

on outstanding debt liabilities within the specified time period of the statement. *Debt collateralized by real estate* covers all debt for which real estate is used as a form of collateral. This includes borrowing for the purchase, refinancing, or construction of buildings and structures (including their alterations and additions), and for equivalent operations regarding land (see paragraph 4.88).