

## 12. Dissemination of FSI Ratios and Related Data

### Introduction

**12.1** To enhance the transparency of their financial system, countries are encouraged to disseminate the core and other FSIs on a frequent basis. This chapter provides a standard framework for the dissemination of the core and encouraged FSIs. It can be adapted to meet specific country circumstances. The chapter also provides additional frameworks for the dissemination of information that allow analysts to interpret the FSI data in the context of specific country circumstances, including the structural features of the financial system. Dissemination of this additional information can be essential, because disseminating FSIs alone may not provide an adequate basis for their interpretation due to the complexity of information they encapsulate, the range of data sources used in their construction, and the various accounting rules under which the data can be compiled.

**12.2** While FSIs provide a variety of information on the health and soundness of the financial system that is essential for macroprudential analysis, they are not sufficient in their own right to provide a comprehensive analysis of the vulnerabilities of a country's financial system. Other factors that are important, but lie outside the scope of the *Guide*, include the quality of supervision and of corporate governance, as well as the incentives facing financial corporations, including the legal framework and the role of government in the financial system. Some of these factors are discussed in the next part of the *Guide*. It should be recognized that coming to a judgment on the strength and vulnerability of any financial system by combining these qualitative factors with the quantitative FSI data is not an exact method of analysis.

### Dissemination Practices

**12.3** As noted above, it is recommended that FSIs be disseminated on a frequent basis. The availability of information can vary among FSIs—for instance, infor-

mation on interbank interest rates will be available more frequently than information on the geographic distribution of lending. Nonetheless, countries might work toward releasing at least a basic, rather than the full, FSI data set on a quarterly basis, within one quarter of the reference date. Some FSIs, such as financial market indicators, may be available for dissemination more frequently. Dissemination of a basic data set on a quarterly basis allows new developments to be identified at an early stage and provides time-series data that can be used to assess variations in FSI data across time and in comparison with other key economic data.

**12.4** The data covered in a basic data set can vary depending on national circumstances, but as a minimum it should include the core FSIs specified in this *Guide*. Preferably, the data with a quarterly frequency should cover institutions that account for a significant part of the assets of the reporting population; complete coverage should be achieved with at least annual frequency. The need for dissemination of encouraged FSIs depends on national circumstances.

**12.5** When data are disseminated, provisional data should be clearly indicated and any major revisions explained by way of notes to the published tables. Breaks in series, for example, due to changes in the reporting population, should be clearly identified and quantified where possible. Such explanations are particularly important given that the entrance or departure of a few institutions from the reporting sample could potentially have a significant impact on the FSIs. More generally, metadata describing in detail the content and coverage of the FSIs, as well as the accounting conventions and other national guidelines reflected in the data, should be made publicly available.

**12.6** Given the wide range of source data needed for compiling FSIs, data from various agencies (for example, the central bank, the statistical agency, and the supervisory agency) are likely to be included. Nevertheless, as noted in Chapter 10, it is recommended that one agency take the lead and the respon-

sibility for the dissemination of all the FSIs produced in the country on one centralized website and/or in a paper publication. Such an approach facilitates access by users. The lead agency should be designated as the contact point for user queries on national FSIs.

## A Framework for Disseminating FSIs

**12.7** Set out below is a dissemination framework based on two modules. These modules organize information into a series of tables aimed at providing a coherent body of information. The two modules and their elements are (1) the FSIs and related data, and (2) metadata required to interpret the FSIs.

### Module I

- **The core and encouraged FSIs.** Table 12.1 provides an illustrative presentation of the list of indicators on both a domestic controlled cross-border and domestic consolidated basis. It is recognized that alternative possibilities for the ordering of the list exist. Time-series data are encouraged, as are graphical presentations that can facilitate the identification of trends in FSIs and complement the data series themselves.<sup>1</sup>
- **Financial sector overview.** The *Guide* sets out some structural indicators for deposit takers and other financial corporations (see Table 12.2). These indicators go beyond the core and encouraged sets of FSIs in this *Guide*.
- **Sector-level income and expense and balance sheet statements.** These statements provide the underlying data series used to calculate many FSIs. The *Guide* considers that disseminating these statements would support the analysis of the FSI data sets, although such dissemination goes beyond the agreed FSIs. Such data can help gauge the magnitudes of the underlying amounts, enable interpretation of ratios—especially whether movements in ratios over time are caused by changes in the component elements of the numerator and/or denominator—and allow additional FSIs to be calculated as country circumstances require. The tables for disseminating the sector-level income and expense and balance sheet data are presented in Chapter 4—Table 4.1 (Deposit Takers), Table 4.2 (Other Financial Corporations), Table 4.3 (Non-financial Corporations), and Table 4.4 (Households).

<sup>1</sup>Ideally, data series would extend back to cover at least one business cycle to facilitate the interpretation of current FSIs.

### The core and encouraged FSIs

**12.8** Table 12.1 provides an illustrative presentation of FSI data (1) on a domestically controlled, cross-border consolidated basis and (2) on a domestic basis (with data for deposit takers and other corporations on a domestically consolidated basis). The core FSIs are highlighted in bold italics. For deposit takers, the *Guide* requires the compilation and dissemination of data on a domestic controlled cross-border consolidated basis. Data on a domestically consolidated basis might be separately compiled if the authorities believe such data would contribute materially to their financial stability analysis.

**12.9** As noted in Chapter 5, national authorities may see a need to compile separate FSIs on subsidiaries of foreign controlled deposit takers (also consolidated cross-border with their own branches and deposit-taking subsidiaries in other countries, if any); such information could be disseminated as an additional column in the table for deposit-taking FSIs only.

### Financial sector overview

**12.10** As noted in Chapter 2, each country has its own unique financial structure, and this will affect the range of data available for calculating FSIs and any assessment of FSIs that are disseminated. Thus, Table 12.2 presents structural indicators for the domestic financial sector that might be relevant for any such assessment. This list goes beyond the agreed FSIs.

#### Deposit takers

**12.11** To provide an overview of the size and ownership structure of the deposit-taking sector, thus supporting the interpretation of FSIs, the following key structural indicators could be disseminated on, at least, an annual basis:

- Number of domestically incorporated deposit takers and number of branches of foreign banks.
- Number of domestic employees in all resident deposit takers.
- Number of branch outlets of deposit takers in the economy.
- Total value of assets (domestic and foreign) owned by resident deposit takers, of which
  - (1) domestically controlled deposit takers<sup>2</sup>
    - (a) government controlled
    - (b) privately controlled

<sup>2</sup>In those rare instances where the parent might be considered as being located both in the domestic and a foreign economy and the deposit taker classifies such entities as domestically controlled, separately identifying such entities, when disseminating any data on financial structure, might be considered.

**Table 12.1. Illustrative Presentation of Financial Soundness Indicators**

(Ratios unless otherwise stated)

	Domestically Controlled, Cross-Border Consolidated Basis (for Soundness Analysis) (Required) (1)	Domestic Consolidated Basis (for Link with Macroeconomy) (2)
<b>Deposit takers<sup>1</sup></b>		
<b>Capital-based<sup>2</sup></b>		
<i>Regulatory capital to risk-weighted assets</i>		3
<i>Regulatory Tier 1 capital to risk-weighted assets</i>		3
Capital to assets		
<i>Nonperforming loans net of provisions to capital</i>		
<i>Return on equity</i>		
Large exposures to capital (number of large exposures (to large resident entities) <sup>4</sup> (to connected borrowers) <sup>5</sup>		
<i>Net open position in foreign exchange to capital<sup>6</sup></i>		
Gross asset position in financial derivatives to capital		
Gross liability position in financial derivatives to capital		
Net open position in equities to capital		
<b>Asset-based</b>		
<i>Liquid assets to total assets</i>		
<i>Liquid assets to short-term liabilities</i>		
Customer deposits to total (noninterbank) loans		
<i>Return on assets</i>		
<i>Nonperforming loans to total gross loans</i>		
<i>Sectoral distribution of loans to total loans (percentages of total)<sup>7</sup></i>		
<i>Deposit takers</i>		
<i>Central bank</i>		
<i>General government</i>		
<i>Other financial corporations</i>		
<i>Nonfinancial corporations</i>		
<i>Other domestic sectors<sup>8</sup></i>		
<i>Nonresidents</i>		
Residential real estate loans to total loans		
Commercial real estate loans to total loans		
Geographical distribution of loans to total loans (percentages of total) <sup>9</sup>		
Domestic economy		
Advanced economies		
Regions, excluding advanced economies		
Africa		
<i>Of which:</i> Sub-Sahara		
Asia		
Europe		
<i>Of which:</i> Former Soviet Union, including Russia		
Middle East		
Western Hemisphere		
Foreign-currency-denominated loans to total loans		
Foreign-currency-denominated liabilities to total liabilities		
<b>Income- and expense-based</b>		
<i>Interest margin to gross income</i>		
Trading income to total income		
<i>Noninterest expenses to gross income</i>		
Personnel expenses to noninterest expenses		
<b>Other financial corporations</b>		
Assets to total financial system assets		
Assets to GDP	n.a.	

Table 12.1 (concluded)

	Domestically Controlled, Cross-Border Consolidated Basis (for Soundness Analysis) (Required) (1)	Domestic Consolidated Basis (for Link with Macroeconomy) (2)
<b>Nonfinancial corporations</b>		
Total debt to equity		
Return on equity		
Earnings to interest and principal expenses		
Net foreign exchange exposure to equity		
Number of applications for protection from creditors	n.a.	
<b>Households<sup>10</sup></b>		
Household debt to GDP	n.a.	
Household debt service and principal payments to income	n.a.	
<b>Real estate markets</b>		
Residential real estate prices (annual percentage increase)	n.a.	
Commercial real estate prices (annual percentage increase)	n.a.	
<b>Market liquidity</b>		
Average bid-ask spread in the securities market (percentage of midpoint price) (specify type of instrument)	n.a.	
Average daily turnover ratio in the securities market (specify type of instrument)	n.a.	
<b>Interest rates</b>		
Spread between reference lending and deposit rates (basis points)		
Spread between highest and lowest domestic interbank rate (basis points)	n.a.	
Note: n.a. = not applicable.		
<sup>1</sup> All series highlighted in bold and italics are core FSIs.		
<sup>2</sup> For all the capital-based indicators, except the regulatory capital-based FSIs, both a narrow and total capital measure can be adopted. Where applicable, Tier 1 capital should be used as the narrow measure.		
<sup>3</sup> In most cases, such data might be applicable only to incorporated deposit takers.		
<sup>4</sup> Defined as claims of the largest deposit takers on the largest entities in the resident economy, including government, to capital (see paragraph 6.29).		
<sup>5</sup> Defined as claims on affiliated entities, including nonresident entities, and other connected counterparties, to capital (paragraph 6.30).		
<sup>6</sup> The measure of the net open position employed, whether total or on-balance-sheet items only, should be made explicit when disseminating data.		
<sup>7</sup> Supplementary information by type of industry could also be provided.		
<sup>8</sup> Consists of households and NPISHs. These sectors could be separately identified.		
<sup>9</sup> Supplementary information by jurisdiction could also be provided, if significant.		
<sup>10</sup> To be compiled on an aggregate residence basis.		

- (2) foreign controlled deposit takers  
 (a) subsidiaries of nonresident parent entities  
 (b) branches of nonresident parent entities.

**12.12** As described in Chapter 5, in the *Guide* control is defined as the ability to determine general corporate policy by choosing (or removing) appropriate directors. Any deposit taker that is neither controlled by the government of the economy in which it is located, nor foreign controlled (as defined in paragraph 5.11), is to be classified as private domestically controlled.

**12.13** The number, employment, and value of assets owned by the deposit-taking sector provide informa-

tion on the size of the sector. Additionally, information on the net number of deposit takers entering or leaving the business and information from FSIs, such as the spread between deposit and lending rates, provide some indication of competitive pressures or whether the sector could be under stress. In addition, the number of branch outlets in the economy can be a source of information both on cost pressures and on the size of the deposit-taking industry within the economy.<sup>3</sup>

<sup>3</sup>Although the nature of a branch can vary across countries—from “brick and stone” branches to one-person windows.

**Table 12.2. Illustrative Presentation of Structural Indicators for the Domestic Financial Sector**

	Financial Assets					Claims on Residents (as a percentage of assets)	Total Premium Income
	Number of Institutions	Number of Employees	Number of Branches	Billions (\$)	Percentage of system assets <sup>1</sup>		
<b>Resident deposit takers<sup>3</sup></b>							
Domestically controlled							n.a.
Of which:							n.a.
Government							
Private							n.a.
Foreign controlled							n.a.
Of which:							
Subsidiaries							n.a.
Branches							n.a.
Memorandum item:							
Cross-border consolidated <sup>4</sup>					n.a.		n.a.
<b>Other financial corporations<sup>3</sup></b>							
Insurance companies <sup>5</sup>							
Nonlife insurance			n.a.				
Life insurance			n.a.				
Pension funds <sup>5</sup>			n.a.				n.a.
Securities dealers <sup>5</sup>			n.a.				n.a.
Investment funds <sup>5</sup>			n.a.				n.a.
Other financial entities <sup>5</sup>			n.a.				n.a.

Note: n.a. = not applicable.

<sup>1</sup>Percentage of total financial system assets (see paragraph 7.6).

<sup>2</sup>Number of institutions accounting for 75 percent or more of the financial assets of the sector.

<sup>3</sup>Identifying the names of the top five institutions in the sector (or a number around five that is considered more appropriate to national circumstances) and their combined share of financial assets can identify the important financial corporations in the economy.

<sup>4</sup>Cross-border consolidation of deposit-taking business of domestically incorporated and controlled deposit takers.

<sup>5</sup>If there is significant foreign control of domestic institutions, a distinction by domestically controlled and foreign controlled could be considered.

**12.14** Attributing the value of assets between domestically controlled, including government-controlled, deposit takers and subsidiaries and branches of foreign parent entities provides an indication of the ownership structure of the deposit-taking sector. Moreover, the value of assets could be divided into claims on residents and nonresidents, thereby indicating the importance of foreign business to deposit takers. When the value of deposit takers' assets and, in particular, the value of loans to nonfinancial corporations and households are compared with GDP, the importance of deposit takers' financial intermediation to the economy is highlighted. In this regard, compilers could also disseminate information from national accounts data on the value added by domestic deposit takers compared with GDP.

**12.15** In many economies, the deposit-taking sector may consist of specialist institutions, as described in Chapter 2. If so, the nature of the banking business undertaken by various types of specialist institutions may differ significantly. To further understand the structure of the financial system, compilers could distinguish structural information on commercial banks and on distinctive types of specialized banks such as savings banks, cooperative banks, and microfinance institutions. Moreover, where appropriate, offshore deposit takers—that is, those licensed to take deposits from and lend primarily, or solely, to residents of other economies—could be distinguished.<sup>4</sup>

**12.16** The concentration of deposit takers' assets is also important to understanding the structure of the financial system. Thus, compilers might consider dissemination of the additional indicators as discussed below:

- Names and, in terms of the value of deposit takers' assets, the combined market share of the top five resident deposit takers (or a number around five that is considered more appropriate to national circumstances).
- Number of deposit takers that accounts for 25, 50, and 75 percent of the value of deposit takers' total assets.

<sup>4</sup>FSIs could be compiled both including and excluding such deposit takers, depending on national circumstances. While the operations of such deposit takers have implications for the domestic economy—a wide-scale collapse of offshore deposit takers could have systemic consequences—the authorities might consider the nature of the business of offshore deposit takers as different from that of other deposit takers.

- Measures of concentration in the sector. One possibility is the Herfindahl Index, which is calculated as the sum of squares of the market shares of all firms in the sector and is described in more detail, along with other measures of concentration, in Chapter 15.

**12.17** Finally, subject to national confidentiality constraints, countries could disseminate information on their deposit insurance schemes, because the level of coverage of depositors' funds can affect economic behavior and thus have implications for financial stability.

#### *Other financial corporations*

**12.18** Given the different specializations within the other financial corporations sector, to more fully understand the structure of the sector, compilers could disseminate the following subsector information for insurance companies, pension funds, security (including derivative) dealers, investment funds, and other financial entities:

- Number of resident institutions (with separate identification of life insurance and other insurance companies).
- Number of domestic employees.
- Total value of assets (domestic and foreign) owned or, for investment companies, under management,
  - of which
    - (1) domestically controlled
    - (2) foreign controlled.

**12.19** Information on the split of assets of other financial corporations between claims on residents and nonresidents could also be disseminated.

**12.20** Compilers could identify the largest corporations in the other financial corporations sector so that it is transparent as to who might be the major players in the financial markets outside the deposit-taking sector. Compilers could disseminate the following information:

- Names and, in terms of the value of assets, market share of the top five companies (or a number around five that is considered more appropriate to national circumstances).

**12.21** For insurance companies the following could also be disseminated:

- Total premium income of resident insurance companies,
  - of which
    - (1) life
    - (2) nonlife.

**12.22** The types of financial institutions mentioned above are likely to be the major owners of financial assets within the other financial corporations sector. However, if other groups of financial institutions are significant owners of financial assets in the economy, for example, finance companies, compilers could disseminate information on the value of their assets by type of activity.

*Nonfinancial corporations*

**12.23** While not covered in Table 12.2, compilers might consider providing the names of, and the value of assets owned by, the top five nonfinancial corporations (or other number appropriate to national circumstances) to facilitate the compilation of data on large exposures and to provide an indication of their importance within the economy.

**Module 2**

- **Metadata** describing in detail the content and coverage of the FSIs and the accounting conventions and other national guidelines reflected in the data should be publicly available. In particular, deviations from the principles set out in the *Guide* should be clearly explained, and any differences in approaches within and between sectors should be highlighted. At the development stage, some FSIs may be calculated from data drawn from data covering various subgroups that apply different accounting principles. Such situations should be highlighted in the metadata.

**12.24** Box 12.1 presents some illustrative points for items that could be covered in such metadata. This module is modeled on the approach in the IMF's Special Data Dissemination Standard and the General Data Dissemination System.

**Specific information on FSIs disseminated**

**12.25** A brief description should be provided of the definitions and the data sources for the numerator and denominator of each FSI, with cross-references to the general information section. Other specific information could include whether the numerator and denominator are available with the same periodicity, and if not, how this affects the use of the data.

**Box 12.1. Illustrative Points for Items to Be Covered in the Metadata**

**Coverage, Periodicity, and Timeliness of Data**

**Data category**

Coverage, such as deposit takers or nonfinancial corporations.

**Periodicity and timeliness of release**

The frequency with which data are disseminated, and the timeliness of dissemination. If some data series are released more frequently than others, this can be specified.

**Access by the Public**

**Dissemination practices**

The mode(s) of disseminating FSIs and the main centralized source for users wanting to access FSIs.

**Contacts**

Names, addresses, e-mail addresses, and other contact information.

**Integrity**

**Terms and conditions**

The terms and conditions under which these data are produced and the agencies involved in the process, and similar information.

**Revisions**

Information on revisions in the data sets and advance notices of major changes in methodology.

**Quality of the Disseminated Data**

**General information**

**Accounting framework**

Descriptions of the underlying accounting framework(s).

**Nature of the basic data**

Data sources, consolidation methodology, institutional coverage, and so on.

**Compilation practices**

Information on samples and surveys, statistical adjustments, methods of verifying data, and so on.

**Accounting and classification principles**

Time of recognition principles, valuation methods, classification of accounts, netting procedures, and so on. Differences in standards or practices from those recommended in the *Guide* should be described.

**Other**

Any other relevant information on compilation practices for the data that are disseminated, including information on significant changes in the reporting population.