

## Chapter Two

### Overview of the Financial System

#### Introduction

2.1 As noted in Chapter 1, FSIs are calculated and disseminated for the purpose of assisting in the assessment and monitoring of the strengths and vulnerabilities of financial systems. Such assessments need to take account of country specific factors, not least the structure of the financial system. Simply stated, whether an economy has a few or many banks, has diverse financial intermediaries or not, has deep and liquid securities market or not, and whether the financial intermediaries have international operations or not, matters to any assessment. This chapter identifies and defines the main types of players and markets that typically constitute a financial system.

#### What is a financial system?

2.2 A financial system consists of institutional units<sup>10</sup> and markets that interact, typically in a complex manner, for the purpose of mobilizing funds for investment, and providing facilities, including payment systems, for the financing of commercial activity. The role of financial institutions within the system is primarily to intermediate between those that provide funds and those that need funds, and typically involves transforming and managing risk. Particularly for a deposit-taker, this risk arises from its role in maturity transformation, where liabilities are typically short term, (e.g., demand deposits), while its assets have a longer maturity and are often illiquid (e.g., loans). Financial markets provide a forum within which financial claims can be traded under established rules of conduct, and can facilitate the management and transformation of risk. They also play an important role in identifying market prices (“price discovery”).

2.3 Within a financial system, the role of deposit-takers is central. They often provide a convenient location for the placement and borrowing of funds and, as such, are a source of liquid assets and funds to the rest of the economy. They also provide payments services that are relied upon by all other entities for the conduct of their business. Thus, failures of deposit-takers can have a significant impact on the activities of all other financial and nonfinancial entities and on the confidence in, and the functioning of, the financial system as a whole. This makes the analysis of the health and soundness of deposit-takers central to any assessment of financial system stability.

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<sup>10</sup> An institutional unit is an entity, such as a household, corporation, government agency, and so on, that is capable, in its own right, of owning assets, incurring liabilities, and engaging in economic activities and in transactions with other entities.

## Financial corporations<sup>11</sup>

### *Deposit-takers*<sup>12</sup>

2.4 The term “bank” is widely used to denote those financial institutions whose principal activity is to take deposits and on-lend or otherwise invest these funds on their own account. In many countries, “banks” are defined under banking or similar regulatory legislation for supervisory purposes. In the *Guide*, banks and other deposit-takers (other than central banks) are included within an institutional sector that is known as “deposit-takers.” Deposit-takers are defined as those units that engage in financial intermediation as a principal activity—that is, channel funds from lenders to borrowers by intermediating between them through their own account—and

- have liabilities in the form of deposits payable on demand, transferable by check, or otherwise used for making payments; or
- have liabilities in the form of instruments that may not be readily transferable, such as short term certificates of deposit, but that are close substitutes for deposits in mobilizing financial resources and included in measures of money broadly defined.

2.5 Commercial banks, which typically take deposits and are central to the payment system, fall under the definition of deposit-takers. These banks, which participate in a common clearing system, may be known as deposit money corporations. Other types of institutions that may be covered by the definition include institutions described as savings banks (including trustee savings banks, as well as savings and loan associations), development banks, credit unions or cooperatives, investment banks, mortgage banks and building societies, where their particular specialization distinguishes them from commercial banks, and micro-finance institutions that take deposits. Government-controlled banks (e.g. post office savings banks, and rural or housing banks) are also deposit-takers if they are institutional units separate from the government and they meet the definition of a deposit-taker outlined in paragraph 2.6. This list is not exhaustive and classification as a deposit-taker depends on the function of the corporation, and not on its name.

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<sup>11</sup> The intention is that the definitions of institutional sectors and sub-sectors in the *Guide* are consistent with the 1993 *SNA*, except where explicitly stated otherwise.

<sup>12</sup> As well as accurately portraying the type of institutions covered, the *Guide* uses the term “deposit-takers” rather than “other depository corporations” (ODC) as used in the *Monetary and Financial Statistics Manual (MFSM)* because of the possible difference in coverage of institutions. In reflecting analytical interest in broad money, ODCs are defined as including all those entities that issue liabilities included in the national definition of money. This may exclude (include) institutional units that are otherwise included (excluded) within the *Guide*’s definition (e.g., certain offshore banks). Notably, money market funds are explicitly excluded from the *Guide*’s coverage of deposit-takers (see paragraph 2.10), but can be included in the *MFSM*’s coverage of ODCs. Any institutional unit classified as an ODC that does not meet the *Guide*’s definition of a deposit-taker should be classified as an other financial corporation.

2.6 Within an economy, the definition of deposit-takers should encompass a group of institutions that meet the definition of banks and similar institutions, under banking or other legislation, because like the statistical definition for deposit-takers, a common legal criterion for a bank is the taking of deposits. If some institutions are banks in a legal sense but not deposit-takers as described above, in following the *Guide* they should still be classified as “deposit-takers,” but in any associated description of the FSI data the status of these institutions should be explained, with some indication of their importance to the data disseminated.

2.7 Conversely, if there are any other groups of institutions that meet the *Guide*’s definition of a deposit-taker, but are not banks or similar institutions under the legislative approach, they should be separately identified so their importance to the information disseminated can be judged.

2.8 As noted in Chapter 1 and described in more detail in Chapter 5, to meet analytical needs, deposit-takers can be grouped on the basis of common characteristics. Two types of reporting populations are particularly identified in the *Guide*: domestically incorporated and controlled deposit-takers, including any foreign branches and subsidiaries, and all domestically located deposit-takers.

#### *Special cases*

2.9 *Holding corporations* are entities that control a group of subsidiary corporations and whose principal activity is owning and directing the group rather than engaging in deposit-taking. As the *Guide*’s focus is the health and soundness of deposit-takers as a sector, in principle the *Guide* considers that holding corporations should be excluded from the deposit-taking sector, even if the business of the subsidiaries it owns is primarily deposit-taking. Rather such holding corporations should be classified as other financial corporations. It is acknowledged that this approach may not be consistent with *1993 SNA*, but is consistent with present supervisory guidance.<sup>13</sup> Nonetheless, there may be interest in information on financial conglomerates headed by holding corporations, as discussed in Appendix III.

2.10 In the *Guide*, it is recommended that *money market funds* should not be classified as deposit-takers, but be separately identified as investment funds within other financial corporations (see ahead), because the nature and regulation of their business is different from that of deposit-takers, although their liabilities can be included in broad money. A similar treatment is recommended for any other institution that engages primarily in securities activity, and issues liabilities that are included in broad money but are not deposits.

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<sup>13</sup> The draft revised Basel Accord proposes to extend consolidated reporting to include bank holding companies. In paragraph 4.100 the *1993 SNA* attributes a holding company to the activity mainly carried out by the group it controls, unless no single type of financial activity is predominant within the group, in which instance it is classified as an other financial intermediary. Thus, the attribution of the holding company to the deposit-taking sector, or not, in the *1993 SNA* is dependent upon all the business of all the entities in the group and not just a deposit-taking subsidiary.

2.11 There is little international conformity of law or practice in the area of banking regulation governing the treatment of *banks in distress*, with official efforts to rehabilitate banks differing both in their time horizon and nature, from the enforcement of banking law and restricting new business, to the receivership and liquidation of banks.<sup>14</sup> In the *Guide*, it is recommended that financial institutions in distress that otherwise meet the definition of a deposit-taker continue to be included in the deposit-taking reporting population for calculating FSIs. Their assets and liabilities exist in the deposit-taking system and the costs of resolution may be significant. Accordingly, until a deposit-taker is liquidated—all assets and liabilities are redeemed and/or written down and the entity ceases to exist—or all deposit liabilities removed from its balance sheet—through either repayment or transfer to another entity—its balance sheet and income statement continue to be included in the data used for calculating FSIs for the deposit-taking sector.

2.12 If banks in distress hold significant positions, data both including and excluding these deposit-takers might be considered, particularly if the liquidation process is very lengthy.<sup>15</sup> In any associated description of the FSI data, the importance of banks in distress to the data disseminated could be indicated.

### ***Central bank***

2.13 The *central bank* is the national financial institution that exercises control over key aspects of the financial system and carries out such activities as issuing currency, managing international reserves, and providing credit to deposit-takers. Central banks are excluded from the reporting population for compiling FSIs.

### ***Other financial corporations***

2.14 *Other financial corporations* are those financial corporations that are primarily engaged in financial intermediation or in auxiliary financial activities that are closely related to financial intermediation but are not classified as deposit-takers.<sup>16</sup> Their importance within a financial system varies by country. Other financial corporations include insurance corporations, pension funds, other financial intermediaries, and financial auxiliaries. Other financial intermediaries include securities dealers, investment funds (including money market funds), and others, such as finance companies and leasing companies. Moreover, included as other financial intermediaries are special asset management companies created for the purpose of managing nonperforming assets that have been transferred from another financial

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<sup>14</sup> See, for instance, Asser (2001) and Garcia (2000).

<sup>15</sup> For instance, if banks in distress for a long period have large foreign exchange exposures unlike “active” deposit-takers. Also, during a long process of liquidation, it is recognized that there may be difficulties in collecting current information on banks in distress.

<sup>16</sup> Provided that they do not take deposits, other financial corporations include funds created to invest income received from a specific source, such as from sales of oil, for the benefit of future generations.

corporation(s), typically deposit-takers.<sup>17</sup> In addition, acting as agents rather than as principals, are other financial auxiliaries, such as market makers. Detailed descriptions of all these types of financial corporations are provided in Appendix VII: Glossary of Terms.

### **Nonfinancial corporations**

2.15 As customers, the performance of *nonfinancial corporations* is important to the health and soundness of financial corporations. Nonfinancial corporations are institutional entities whose principal activity is the production of goods or nonfinancial services for sale at prices that are economically significant.<sup>18</sup> They include nonfinancial corporations; nonfinancial quasi-corporations;<sup>19</sup> and nonprofit institutions that are producers of goods or nonfinancial services for sale at prices that are economically significant. They can be controlled by the government sector.

### **Households**

2.16 *Households* are also customers of financial corporations. They are defined as small groups of persons who share the same living accommodation, pool some or all of their income and wealth, and consume certain types of goods and services (e.g., housing and food) collectively. Unattached individuals are also considered households. Households may engage in any kind of economic activity, including production.

### **Nonprofit institutions serving households (NPISHs)**

2.17 *NPISHs* are mainly engaged in providing goods and services to households or the community at large free of charge or at prices that are not economically significant (and thus are classified as nonmarket producers), except those that are controlled and mainly financed by government units, which are classified as part of the general government sector (see paragraph 2.18). NPISHs are mainly financed from contributions, subscriptions from members, or earnings on holdings of real or financial assets. They are customers of financial corporations, although experience suggests that their impact on the financial stability of the economy is limited. Examples of NPISHs include consumer associations, trade unions, and charities financed by voluntary transfers.

### **General government**

2.18 *General government* units exercise legislative, judicial, or executive authority over other institutional units within a specified area. Governments have authority to impose taxes,

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<sup>17</sup> If such a corporation records deposits in its balance sheet, it would be classified as a deposit-taker. In Appendix III, the idea of collecting additional data on their ownership of NPLs is discussed.

<sup>18</sup> Economically significant prices are those that have a significant influence on the amounts that producers are willing to supply and on the amounts purchasers wish to buy.

<sup>19</sup> A quasi-corporation is an unincorporated enterprise that functions as a corporation. Typically it will keep a separate set of accounts from its owner(s) and/or, if owned by a nonresident, be engaged in a significant amount of production in the resident economy over a long or indefinite period of time.

to borrow, to allocate goods and services to the community at large or to individuals, and to redistribute income. They affect and can be affected by the activities of financial corporations. The general government sector consists of departments, branches, agencies, foundations, institutes, nonmarket nonprofit institutions controlled and mainly financed by government, and other publicly controlled organizations engaging in nonmarket activities. Various units of general government may operate at the central, state, or local government level.

### **Public sector**

2.19 The *public sector* includes the general government, central bank, and those entities in the deposit-taking and other sectors that are public corporations. A *public corporation* is defined as a nonfinancial or financial corporation that is subject to control by government units, with control over a corporation defined as the ability to determine general corporate policy by choosing appropriate directors, if necessary. A fuller discussion of control is provided in paragraph 5.7.

### **Financial markets**

2.20 A financial market can be defined as a market in which entities can trade financial claims under some established rules of conduct. There are various types of financial markets depending on the nature of the claims being traded. They include money markets, bond markets, equity markets, derivatives markets, commodity markets, and the foreign exchange market.

2.21 The *money market* is the market that involves the short-term lending and borrowing of funds among a range of participants. The typical instruments traded in a money market have a short maturity and include treasury bills, central bank bills, certificates of deposit, bankers' acceptances, and commercial paper. They also include borrowing through repurchase agreements and similar arrangements. It is the market that can provide short-term liquidity to governments and financial and nonfinancial corporations. An active money market allows entities to manage their liquidity in an efficient manner, by facilitating investment of excess holdings of cash in interest-bearing assets, which can be drawn upon when needed, and by providing a source of funds for those short of liquidity, or who wish to finance short-term positions in other markets.

2.22 One specific money market is the *interbank market*, which is the market in which banks lend to each other. This market allows banks with excess liquidity to lend these funds to banks with a shortage of funds, often overnight and usually on an unsecured basis. An efficient interbank market improves the functioning of the financial system by enabling the central bank to add or drain liquidity from the system more effectively and banks to redistribute their individual excesses and shortages of liquidity among themselves without causing undue interest-rate volatility. If funds do not flow freely among banks in the interbank market, this impedes liquidity management by individual banks, posing a risk to financial stability, and could result in the central bank having to supply liquidity to banks on a case-by-case basis, complicating the management of monetary policy.

2.23 The *bond market* is the market in longer-term debt instruments issued by governments, and financial and nonfinancial corporations. The bond market allows a borrower to obtain long-term funds through the issuance of debt securities, while providing investors with an opportunity to purchase and sell these securities. For borrowers, such a market provides an alternative to bank lending as a form of long-term finance and in the instance of asset-backed securities, whose income payments and principal repayments are dependent upon a pool of assets such as loans, allows a lender to, in effect, convert illiquid assets into tradable securities.<sup>20</sup> An active bond market also allows credit risks to be spread over a wide range of investors, reducing the potential for concentration of credit risk to develop, and providing borrowers with up-to-date information on the market views of their credit-worthiness. Bonds also provide an investment opportunity for those investors that have a long-term investment horizon, such as pension funds with long-term liabilities.

2.24 The *equity market* is where equity securities are traded. An active equity market can be an important source of capital to the issuer for use in business, and allows the investor to benefit from the future growth of the business through dividend payments and/or an increase in the value of the equity claim. The market value of the equity security can also fall. Turnover serves as an indicator of liquidity in equity markets.

2.25 *Financial derivatives markets* are different from money, bond, and equity markets in that the instruments—such as swaps and options—are used to trade financial risks such as arising from foreign exchange and interest rates, to those more able or willing to bear them. Credit risk can also be traded, through credit derivatives. The value of derivative instruments depends on the price of the underlying item—the reference price. These markets can broaden financial market activity in that, for instance, investors can, in a derivatives market, trade away financial risk inherent in a security, such as exchange rate risk, that otherwise would have deterred them from purchasing the security. However, financial derivatives can be used to take on risk, and thus can pose a threat to financial stability if significant losses are incurred.

2.26 In financial markets, *liquidity* is important, because it allows investors to manage their portfolios and risks more efficiently, which tends to reduce the cost of borrowing. There are several dimensions to market liquidity, including tightness, depth, immediacy, and resilience. Tightness is a market's ability to match supply and demand efficiently and can be measured by the bid-ask spread. Market depth relates to the ability of a market to absorb large trade volumes without a significant impact on prices, and can be approximated by the amounts traded over a period of time (turnover) and quote sizes. Immediacy is the speed with which orders can be executed and settled, and resilience is the speed with which price fluctuations arising from imbalances in trades are dissipated.

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<sup>20</sup> There are several key features of asset-backed securities: the original lender will usually sell the assets to a trust or other form of intermediary (special purchase vehicle) and so, in the case of a deposit-taker, this activity frees "capital" that regulatory guidelines require a deposit-taker to hold against the assets. The intermediary will finance the purchase of the assets by issuing securities.

## **Payment system**

2.27 A payment system consists of a set of instruments, banking procedures, and typically interbank fund transfer systems that ensure the circulation of money. The payment system is a channel through which shocks can be transmitted across financial systems and markets. A robust payment system is a key requirement in maintaining and promoting financial stability. So, a broad international consensus has developed on the need to strengthen payment systems by promoting internationally accepted standards and practices for their design and operation.<sup>21</sup>

## **Real estate markets**

2.28 Experience has shown that real estate markets can be an important source of financial instability. Real estate markets allow the trading of claims on, and investments in, real estate and can also involve markets associated with the financing of real estate. In the *Guide*, real estate is defined to include both land and buildings (including other structures used as dwellings, e.g., houseboats). Because land is a more-or-less fixed resource, as are buildings in the short-term, traditionally real estate has lent itself to speculative activity—when demand and prices significantly increase in a short period—and, often associated with this, large financing flows. In addition, for households, changes in the value of the real estate they own can have a significant effect on their economic behavior.

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<sup>21</sup> See BIS (2001a) and BIS (2003a).