Chapter 29: The financial corporations sector (S12)

(NEW chapter)

A. Introduction

29.1 Financial corporations have taken on increased importance over the years, in many economies, reflecting both growth and diversification. Generally, the amount of funds channeled through the financial system has been on a long upward trend, reflecting financial innovation, as well as demographic trends and other factors. This has tended to promote the expansion of non-bank financial intermediaries, such as investment funds, insurance corporations and pension funds, and security and derivative dealers, central clearing counterparties and specialized financial intermediaries. Alongside these trends, the increased sophistication of financial activities and the interlinkages among types of financial corporations present the possibility of spillover effects in the event of financial disruptions originating in one subsector of the financial corporations' sector or from outside of the sector. The impact on the real economy of such events can be significant. The global financial crisis which began in 2007-08 underlined the need for improved and more detailed statistics on financial corporations alongside the need to better understand their sources and uses of funds.

29.2 There are many uses of financial corporations' detailed information, some of which are statistical and support national accounts' analysis and related data compilation. Other uses include monetary and financial sector analysis and studies of the financial system or specific sectoral activities. More recently, a key use of these data is financial stability analysis, sometimes requiring supplemental breakdowns of sectors or financial instruments, discussed later in this chapter.

29.3 This chapter discusses in detail the financial corporations' sector and its subsectors within the system of national accounts. The financial system is an essential element of most developed and developing economies, though its structure can vary across countries. For example, depository institutions may be dominant in certain economies. Non-bank financial intermediation, previously referred to as *shadow banking*, has taken on increased importance in other economies. In short, the size, complexity and the composition of the financial system may be quite different when looking across economies. Nevertheless, the components and measures of these systems are defined in a consistent way to promote data accuracy and international comparability of national accounts statistics.

29.4 This chapter is organized as follows. Section B provides an overview of financial corporations and summarizes the impact of technology on the sector; it also touches upon domestic consolidation and nationality-based statistics. Section C discusses the activities of the various subsectors of financial corporations. Section D presents supplementary breakdowns on non-bank financial intermediaries, while section E discusses the links to Monetary and Financial Statistics. The material in this chapter dovetails with material in chapter 5 as well as section E of chapter 25. It also complements chapters 26 and 28.

B. Overview of financial corporations

1. General concepts

29.5 As noted in Chapter 5, the financial corporations sector is made up of all resident corporations that are principally engaged in providing financial services to other resident or non-resident institutional units, including insurance and pension funding services, to other institutional units. It comprises all resident financial corporations regardless of the residence of their shareholders, the branches of non-resident corporations that are engaged in financial activity on the economic territory on a long-term basis, and all resident non-profit institutions that are market producers of financial services. Despite the use of the term corporations, the sector also includes investment funds and pension funds.

Definitions and sectoring

29.6 Financial intermediaries are institutional units that incur liabilities on their own account for the purpose of acquiring financial assets by engaging in financial transactions on the market. These include investment funds, insurance corporations and pension funds. Financial auxiliaries are institutional units principally engaged in serving financial markets, who do not take ownership of the financial assets and liabilities they handle. For captive financial corporations most of their assets or liabilities are generally not available on open financial markets.

29.7 The SNA uses a detailed breakdown of financial corporations. Financial corporations are allocated to subsectors of the financial corporations sector based on their primary activities, considering and sometimes adjusting for regulatory data constraints in different jurisdictions. The nine "core" subsectors of financial corporations are the central bank, deposit-taking corporations except the central bank, money market funds (MMF), non-MMF investment funds, other financial intermediaries except insurance corporations and pension funds, financial auxiliaries, captive financial institutions and moneylenders, insurance corporations, and pension funds.

Domestically based statistics

29.8 As is the case for all institutional units, financial corporations are only compiled for units which are resident in the country; for more details on the residence of institutional units, see chapter 5. This groups together a set of institutional units, which allows for a proper calculation of SNA measures such as output, value added/GDP, earned income/GNI, saving, domestic investment, financial flows and balance sheets, and is fully consistent with the external accounts (balance of payments and international investment position). Regardless of whether the universe for any given subsector is comprised of a combination of legal entities, or some higher level of consolidation for complex enterprises (often referred to as statistical enterprises), or some combination of the two, the statistics are based on the principle of residence.

29.9 Some subsectors of the financial corporations sector can be dominated by large institutional units, often complex corporations. In the case of complex corporations, it is possible that some domestic subsidiaries are consolidated, although legal entities often coincide with the concept of an institutional unit. Where there is some degree of consolidation, these institutional units are classified to the subsectors based on their primary activities.

29.10 Many of the larger financial institutions are multinational enterprise groups (MNE groups) with operations and affiliates/subsidiaries in more than one economic territory. In other words, they own one or more foreign corporations/entities (either as majority owned or wholly owned subsidiaries), but in the case of these foreign controlled corporations the accounting is limited to the financial relationships, be it equity investments or loans, including related income, in the non-resident affiliated or non-affiliated corporations. Similarly, for foreign controlled corporations operating in the national economy, only the domestically consolidated financial statements of the resident subsidiary entities are relevant for the SNA.

Production and the nature of financial services

29.11 Financial corporations do not account for a large share of economic production in most economies. The nature of the services offered by financial corporations varies by subsector, and in some jurisdictions (depending on regulations) certain financial corporations may offer more than one type of service. An example of this would be a bank also offering investment services, taking advantage of the retail banking system of local branches. The production of financial services is the result of financial intermediation (which includes financial risk management and liquidity and maturity transformation), insurance, or auxiliary financial activities.

29.12 As implied in paragraph 29.6, the composition of assets and liabilities in the subsectors of financial corporations reflect their financial activities and, hence, may affect the measures of output in these subsectors. Financial services may be paid for explicitly or implicitly, and some transactions in financial assets involve both explicit and implicit charges. Both explicit and implicit service charges are common across a number of subsectors. For example, deposit-taking corporations (except the central bank) charge fees but most of their output is measured as implicit financial services on loans and deposits, as described in chapter 7. As another example, financial auxiliaries' output is often comprised of explicit service charges.

29.13 Financial services are produced almost exclusively by financial corporations because of the usually stringent supervision of the provision of these services. Similarly financial institutions rarely offer non-financial services. There are a few exceptions. For example, for a retailer offering credit facilities to its customers (e.g., financing consumer goods). However, in such cases the credit is usually provided by a subsidiary which is classified in the financial corporations sector. Financial corporations may also create subsidiaries dealing with particular forms of financial services. For example, a credit card operation may be associated with a particular bank but may be institutionally separate.

29.14 There are three broad types of financial activities: the services of financial intermediaries, the services of financial auxiliaries, and other financial services. ***Financial intermediation*** involves financial risk management and maturity and liquidity transformation, where the institutional units incur financial liabilities (accepting deposits or issuing bills, bonds or other securities) or uses own funds to acquire mainly financial assets (making loans and advances, or purchasing bills, bonds or other securities). This includes insurance corporations and pension funds which invest assets on behalf of their policyholders and contributors. The output of these services is calculated in different ways. ***Auxiliary financial services*** facilitate financial intermediation by acting on behalf of others at no risk to themselves. Other financial corporations are institutional units providing financial services, where most of their assets and liabilities are not available on open financial markets (e.g., captive financial institutions).

29.15 There are four main ways in which financial services are provided and charged for. Three of these are discussed below, while financial services associated with insurance and pension schemes are discussed in chapter 24. A more detailed discussion of output measures can be found in chapter 7 as well as in the UN-ECB *Financial production, flows and stocks in the system of national accounts*.

Explicit financial service charges

29.16 Many services come under this heading and may be provided by different subsectors of financial corporations. Financial intermediaries typically charge explicit fees for services (and some also charge for implicit services). *Deposit taking corporations* may explicitly charge for arranging loans, or explicitly charge for services related to deposits; explicit charges may also exist for other services. Other types of financial intermediaries also charge various explicit fees, as follows. Investors in *investment funds* may be confronted with different fee structures, which can include one-time sales charge (front-end load commission), ongoing charges, transactions costs and account fees. *Securitization corporations* charge fees that cover administrative charges and default risk, either as a fixed amount or percentage of the asset value being securitized. *Underwriters' security and derivative dealers* can charge a variety of fixed or transactional based fees and commissions. *Lending and leasing corporations* typically charge fees on the origination of loans and leases, as well as any penalties for late payment. *Central clearing counterparties* "clearing charge" is paid by traders to settle transactions in securities through the agency. Factoring firms also charge fees, typically as the discount on the accounts receivables purchased.

29.17 *Captive financial institutions and moneylenders* may also charge various types of fees for their services, although output may also be calculated as the sum of costs for certain institutional units.

29.18 Fees and other charges associated with *insurance corporations* and *pension funds* are discussed in chapters 7 and 24.

29.19 Financial auxiliaries charge fees for their varied services. For example, flotation corporations may charge other corporations to arrange the issue of shares. *Foreign exchange bureaus* may charge a foreign transaction fee as well as a currency conversion fee. *Supervisory authorities* may charge membership fees. *Institutional investment managers* charge management fees against the funds (usually as a percentage of the assets) that they manage on behalf of their various clients. Notably, *head offices of financial corporations* may charge fees, or their output may be calculated as sum of costs.

Implicit financial services provided in association with interest charges on loans and deposits

29.20 ***Deposit taking corporations (except the central bank)*** primarily accept deposits and extend loans. This activity provides a mechanism which allows the depositor to lend to the borrower. Each of the two parties pays an implicit fee to the bank for the intermediation service provided. The implicit services are measured using a reference rate. The difference between the interest rate paid to banks by borrowers and the reference rate plus the difference between the reference rate and the interest rate actually paid to depositors is used to calculate charges for the ***implicit financial services on loans and deposits***. The reference rate applies to both interest paid on loans and interest paid on deposits so that the amounts of interest recorded as such in the SNA are calculated as the reference rate times the level of loans and deposits in question. The difference between these amounts and the amounts actually paid to the financial institution are recorded as output of financial intermediaries and uses of financial services by the borrowers or depositors. Refer to paragraphs 7.163-7.169 for further discussion.

29.21 A number of deposits and loans embed charges for implicit financial services on loans and deposits. The ***types of deposits*** include transferable deposits and other deposits, which typically include saving deposits, fixed term deposits, non-negotiable certificates of deposit; deposits of limited transferability, and overnight and very short-term repurchase agreements if they are considered part of the definition of broad money or if they concern agreements between deposit-taking corporations; shares of other similar evidence of deposits issued by savings and loan associations, building societies, credit unions and the like; and repayable margins in cash, related to financial derivative contracts. The ***types of loans*** cover amounts overdrawn on overdrafts, installment loans, hire-purchase credit, revolving credit, mortgage loans, and loans to finance trade credit; securities repurchase agreements (except those included in broad money or those between deposit-taking corporations) and gold swaps; and financing in the form of a financial lease.

29.22 ***Financial intermediaries other than deposit-taking corporations*** can also generate implicit financial services by offering loan facilities. Consumer or business lending corporations, financial subsidiaries of retailers or financial corporations that specialize in leasing (e.g., property companies, aircraft leasing companies) as well as moneylenders' loans from own funds or from funds received from a sponsor are examples of financial institutions that make loans without accepting deposits.

29.23 Some other points are worth noting relating to implicit financial services on loans and deposits. Liquidity transformation services should remain a part of these services, but estimates should be closely scrutinized during periods of volatile movements in reference rates; and a single temporal reference rate should be used to estimate the relevant services. The choice of reference rate should be determined by national circumstances with the reference rate based on (a) a single observable exogenous rate (e.g., interbank lending rates), or (b) a reference rate based on a weighted average of observable exogenous rates of maturities with different terms (weighted by the stock of loans and deposits in each maturity), or (c) a weighted average of the endogenous interest rates on loans and deposits. Credit default risk should, in principle, be excluded from implicit financial services on loans and deposits but this is typically not the case. Therefore, any countries that can manage to make this adjustment are encouraged to compile unadjusted supplementary measures for international comparability. For international trade in implicit financial services, different currencies may be involved. As a consequence, the relevant services charges should be calculated by at least two groups of currencies (national and foreign currency) with (ideally) separate reference rates applied for each currency (see para 7.185 for additional details). No such services are calculated for central banks.

29.24 Lastly, implicit financial services on loans and deposits give rise to ***counterpart adjustments***. The total of these financial services must be allocated to user sectors by applying either a “bottom-up” approach or a “top-down” approach. The former approach is used when the compilers have access to counterpart data, such that SNA interest and the related implicit service charges can be accurately allocated. The latter approach is used when such information is not available, as a consequence of which compilers have to distribute SNA interest and the implicit service charges using a variety of indicators. It may be that both approaches are combined if counterpart data are partial. In both instances, compilers will have to make a distinction between implicit service charges that should be recorded as intermediate consumption and service charges that affect final consumption of sectors, by referencing the underlying deposits and loans as either corresponding to corporations, households as consumers or to households as producers (owners of unincorporated enterprises and other self-employed persons) or dwelling owners.

Financial services associated with the acquisition and disposal of traded securities and currencies

29.25 These financial services are basically estimated margins between buying and selling prices. Refer to paragraphs 7.189-7.194 as well as paragraphs 25.xxx-25.xxx for further discussion.

2. Technological innovation

29.26 Technology-enabled innovation in financial services, generally referred to as *Fintech*, is a relatively new trend in the financial system. Fintech often simply refers to new ways of providing financial products, technologies, and access modes to products already available on the market. These can have a material effect on the provision of financial services in the subsectors of financial corporations, resulting from new business models, applications, and processes. It can also result in new products. Fintech is not linked to specific institutional (sub)sectors and could be used across institutional sectors.

29.27 Financial intermediation platforms, for example, facilitate financial transactions, such as payment, funding or other transactions. They receive fees or commission for their financial services. These new financial services fall within existing categories of products and new digital assets also typically fall within existing asset categories.

29.28 Entities that are involved in Fintech do not constitute a separate institutional (sub)sector. However, statisticians are encouraged to compile further supplementary (*of which*) breakdowns for subsectors, if the impacts of this financial innovation are considered significant and if this activity can be separately identified. If the entity providing a specialized financial platform has legal status, then they would be classified as a separate statistical unit within financial auxiliaries (S126). This can be the case with crowd funding platforms and peer-to-peer lending platforms.

29.29 A similar approach is recommended for the external accounts. This topic is discussed comprehensively in chapter 22.

3. Alternative organizational structures as supplementary statistics

Financial corporations by control

29.30 The extent of MNE groups in the financial corporations sector continues to expand and can be significant for certain subsectors in many economies. This applies to foreign and domestically controlled institutional units. For the analysis and an improved understanding of the national financial system, it is also important to distinguish financial corporations which are controlled by government or other public units. For these reasons, it is recommended to break down the financial corporations' sector, to show foreign-controlled corporations as well as corporations that are part of a domestic MNE group, in addition to publicly controlled corporations. More specifically, the following subsectors based on control are recommended:

- Public financial corporations
  - Of which: part of a domestic multinational corporation
- National private financial corporations
  - Of which: part of a domestic multinational corporation
- Foreign-controlled financial corporations
  - Of which: Special Purpose Entities (SPEs)

Nationality-based statistics

29.31 Many national non-financial and financial corporations have large foreign investments in either foreign securities and other financial instruments, and/or hold significant equity investments abroad through majority or wholly owned foreign subsidiaries (outward direct investment positions in the external accounts). Both types of investments expose them to a variety of risks, but the nature of the investment and the risk is different, and more extensive, for direct investment. Where the domestic direct investor has controlling interest in foreign subsidiaries, it is fair to say that the risks are only partly measured in the national financial accounts and balance sheets, and in the external accounts (including the coordinated portfolio investment survey and the foreign direct investment statistics). This identifies an important data gap with respect to financial stability concerns.

29.32 The financial accounting of corporations allows for consolidation of majority owned or wholly owned foreign subsidiaries in the parent enterprise. However, this global consolidation for multinational financial corporations is inappropriate for most macroeconomic statistical uses (as explained above). At the same time, there is increasing interest in worldwide consolidated data for these MNE groups, especially for systemically large corporations. Therefore, for a more thorough understanding of corporate risks across economies it is useful to look at MNE groups, both in an aggregated form and by individual MNE group. Such statistics from a so-called "nationality perspective" put emphasis on international inter-corporate ownership and control in corporate groups as well as geographical counterpart relationships and can shed light on various types of potential vulnerabilities.

29.33 The "nationality perspective" was pioneered by the Bank of International Settlements (BIS), which made use of both domestic and globally consolidated banking data to better understand the global banking system as well as national banks' exposures. In addition to providing a global picture of balance sheets, it also allows for a more detailed analysis of counterpart country information or geographical exposure of balance sheets. This helps in gaining a broader understanding of the supply of credit, both domestic and foreign sourced; the uses of funds; funding risks associated with currency exposures and maturity risk (i.e., mismatches between assets and liabilities): and country credit risk.

29.34 Given the large number of non-depository financial MNE groups with significant national and global operations, combined with the need for enhanced financial stability monitoring, a case can be made to extend the nationality approach beyond deposit-taking corporations to the other financial corporations' subsectors. Such efforts can help enhance the measurement of risk.

29.35 In this context, it is useful to consider two generic cases of corporate group exposures.

- The domestic MNE group (say, in country A) faces risks with respect to its own assets and liabilities, which include its foreign investment abroad. However, a simple analysis of their direct investment positions can mask the total exposure of the parent firm. In the case of foreign-controlled enterprises (say, in country B), the domestic parent's risk may extend to the foreign subsidiaries' assets, in terms of earning power and valuation; and to its liabilities, relative to liquidity concerns, interest costs, leverage as well as market risk, credit risk exchange rate fluctuation risks. The foreign subsidiaries are the immediate debtors, but the domestic parent corporation is usually ultimately responsible for this debt (by explicitly or implicitly guaranteeing such debt). In this sense, cross-border connectivity is more complex than the parent's foreign investment claim. And, under certain financial instability circumstances, when this connectivity impacts the domestic parent, it can also feedback to the domestic parent's economy.
- A further dimension to this can extend beyond the domestic parent if, in turn, this enterprise is ultimately owned by another foreign corporation. In other words, the domestic parent in country A owns a foreign affiliate in country B, but a corporation in country C ultimately owns the corporation in country A. This implies that the corporation in country A is the intermediate controlling parent and the corporation in country C is the ultimate controlling parent. In order to better understand the inter-corporate ownership exposures in the national economy (in this case, country A), it is useful to stratify the domestic parents of foreign controlled affiliates into (a) ultimate parents and (b) intermediate parents (where the ultimate parent is in another country). In this sense, one can view nationality measures for corporations as two separate levels of commitments with different degrees of exposure. This also reinforces the usefulness

of the foreign direct investment concept of ultimate controlling parent.

29.36 Nationality-based statistics are relatively new in the context of macroeconomic statistics, less so in the context of reporting for supervisory and regulatory purposes. But, by combining existing country data sources and/or leveraging additional information (e.g., additional survey, administrative records, or financial supervisory reports) or using newer techniques such as record linkage, it is possible to work towards developing such measures. For example, large MNE groups have financial reports on a globally consolidated basis. Compilers have financial reports for resident units of these same firms for the purpose of compiling national accounts and other macroeconomic statistics. *Foreign direct investment statistics* also exist for these same entities, with geographical details. In addition, many countries publish various statistics (income, assets and liabilities, employment, etc.) for MNE groups, as part of *Foreign affiliate statistics* and/or *Activities of multinational enterprises*. Underlying all these sources of information are data on individual companies. What is required is an ability to cross-reference datasets, and to generate a methodology for nationality-based estimates that can ensure international comparability.

C. Financial corporations' subsectors

29.37 Financial corporations are engaged in a wide range of financial activities. They are grouped together in institutional subsectors largely according to their dominant activities, following the primary activity criterion to classify units. That said many financial corporations in one subsector may offer similar types of financial services as those in other subsectors. For example, deposit-taking corporations make loans as do select financial intermediaries in other subsectors. Another example is that a securities dealer financial intermediary can also undertake brokerage activities similar to a financial auxiliary. However, often this does not affect sub-sectoring, as financial corporations may have unconsolidated subsidiaries undertaking the various activities. This section highlights the main functions of each type of financial corporation in each of the subsectors to help compilers delineate different types of financial corporations.

1. Central bank (S121)

Definition and functions

29.38 The central bank is the financial institution (or institutions) that exercises control over key aspects of the financial system. Their principal functions generally include conducting monetary policy, including by issuing currency and regulating money supply and credit; managing international reserves and the payments system; promoting financial stability, including regulation and macroprudential supervision; and acting as banker to the government.

29.39 The following financial intermediaries are classified to this subsector.

- The national central bank, including where it is part of a system of central banks, which in most economies are separately identifiable institutions that are subject to a varying degrees of government control, engage in differing sets of activities, and are designated by various names (e.g., central bank, reserve bank, national bank, or state bank).
- Currency boards or independent currency authorities that issue national currency which is fully backed by foreign exchange reserves.
- Central monetary agencies of essentially public origin (agencies that manage foreign exchange or issue banknotes and coins that maintain a complete set of accounts but are not part of central government).
- Supervisory authorities that are not separate institutional units and are part of the central bank. If they constitute separate institutional units, then these units and their accounts are part of *Financial auxiliaries*.
- National agencies, including notional resident units, of centralized currency unions.

29.40 As long as the central bank is a separate institutional unit, it is always allocated to the financial corporations' sector even if it is primarily a non-market producer. Many central banks regulate and/or supervise other deposit-taking corporations and sometimes also other financial corporations, and these activities are included in the central bank subsector. However, if such activities are performed by a separate institutional unit (or units) that are affiliated with government or other sectors and if they are mainly engaged in regulating or supervising financial units, they are classified as financial auxiliaries.

29.41 A few economies do not have central banks. Any central banking activities that are performed by the government and cannot be separated into specific institutional units are consolidated with general government.

29.42 In economies in which some central are performed wholly or partly outside the central bank, particularly holding reserve assets, consideration should be given to compiling supplementary data for the monetary authorities.

29.43 The existence of a currency union central bank (common currency and single monetary policy) does not preclude the existence of country central bank institutional units within the union. However, the residence of the currency union central bank is the region to which the union applies (see paragraph 5.279).

29.44 Some central banks may also engage in commercial banking, as a secondary activity.

29.45 Monetary policy is exercised through a variety of means, including: interest rate policy, typically by setting the central bank's main policy rate (e.g., refinancing operation, overnight lending rate), thus influencing short-term markets; open market operations by buying and selling financial instruments, mainly government debt instruments; refinancing banks through repurchase agreements; and exchange rate policy; altering bank reserve requirements; and forward guidance and other communication activities. In many jurisdictions central banks also have a financial stability analysis function, monitoring the financial positions (e.g., liquidity, leverage, capital adequacy) of large financial institutions as well as the financial risks and vulnerabilities and the economy more generally.

29.46 Some central banks may also engage in commercial banking, as a secondary activity.

2. Deposit-taking corporations except the central bank (S122)

29.47 Deposit-taking corporations, except the central bank, have financial intermediation as their principal activity. To this end, they have liabilities, principally in the form of deposits or other financial instruments (such as short-term certificates of deposit) that are close substitutes for deposits. The liquid liabilities of deposit-taking corporations are typically included in measures of money broadly defined. These liabilities are the source of funds for the credit extended primarily in the form of a variety of types of loans. This constitutes the fundamental line of business for the financial intermediaries in this subsector. The major investment income receivable and payable reported by these institutions is interest. However, the structure of this subsector can differ across jurisdictions, sometimes with a significant public corporations' presence. The following financial intermediaries are classified in this subsector.

29.48 **Banks** (sometimes referred to as commercial banks) include a wide variety of institutions and functions which can, along with the size and concentration of the banking industry, differ across economies. Some banks are primarily retail banks, with the bulk of their deposit-taking and lending activities as well as other services focused on households. Other banks, such as all-purpose banks, offer a range of services to a broad set of clients. For example, commercial banks offer both loans to business and consumers in their lending activity. Universal banks offer a multitude of different services. In addition to the loans and deposits business, they can provide a variety of investment services including asset management, investment advisory services, services related to securities transactions, underwriting and financial analysis. Some of these banks have evolved over the years, expanding their business line through mergers and acquisitions, and can also offer non-traditional services such as investment funds as well as insurance from non-consolidated units which are typically classified in other institutional (sub)sectors. The branch banking system offers a convenient front door to these additional services.

29.49 It is also possible that some merchant banks (which specialize in financing international trade and focus on large corporate clients) may also be included in this subsector, given that they raise funds through deposits or their close substitutes. However, if their sources of finance are shares and debentures, they would be largely classified in other financial intermediaries except insurance corporations and pension funds (S125).

29.50 This subsector also includes institutions sometimes referred to as **near-banks,** or quasi-banks. These are deposit-taking corporations that operate similarly to banks, sometimes under different legislation. These entities are often smaller in size and typically focus more on the core business of deposits and loans, the latter sometimes related to specialized financing. These include savings banks that tend to operate more like retail banks, with a focus on interest-bearing deposits and long-term investments such as home financing. Mortgage loan companies and other lenders that accept deposits as a principal source of funds are also covered in this group. In some jurisdictions, banks have acquired and consolidated savings banks. Savings and loan associations (sometimes referred to as credit unions) are a type of cooperative savings bank that is typically owned (and overseen) by its retail customers. The customers are members of the association that each hold a nominal share in the organization, typically a small portion of the initial deposit. Also included are building societies, which are cooperatives similarly owned by their members and mainly offer mortgage financing.

29.51 Near-banks also encompass more specific types of deposit-taking corporations, such as agricultural credit banks and rural credit banks. The former can be large financial institutions, sometimes organized as cooperatives. In some economies, these banks are public corporations.

29.52 This subsector also includes any other specialized banks or other financial corporations which take deposits or issue close substitutes for deposits, such as municipal or regional-provincial credit institutions, post banks, post office giro institutions (any of which may be public corporations), giro banks and other electronic money institutions.

3. Money market funds (MMFs) (S123)

29.53 Investment funds are collective investment schemes that are split into two subsectors within the financial corporations sector. The first of these are **Money market funds** (MMFs) which issue shares or units to the public. As the name suggests, the proceeds are invested primarily in money market instruments such as short-term debt securities of government, commercial paper, promissory notes, repurchase agreements on short-term government securities, bankers' acceptances and short-term certificates of deposit and various types of bank deposits. As a result, MMF shares or units are viewed as close substitutes for deposits and are segregated from other investment funds. Investment trusts, unit trusts and other collective investments schemes with the same characteristics are grouped in the subsector.

29.54 MMFs are open-ended funds (see below). They are considered low-risk investments that are highly liquid. MMF shares or units can be transferred by cheque or other means of direct third-party payment. Investors can choose differently comprised portfolios of MMFs in which to invest (e.g., a Treasury fund).

4. Non-MMF investment funds (S124)

29.55 In most economies the second and larger component of investment funds is **Non-MMF investment funds**. Funds invested in these investment funds are not close substitutes for deposits and are not transferable in the same way as MMFs. These collective investment schemes can be specialized funds, focused on specific types of investments (e.g., debt securities, equities, investments tied to real estate) tailored to investors' needs. These investments can evolve over time, adapting to the funds' portfolio strategy or market conditions. Broad types of specialized funds include:

- Equity funds, which buy stocks from some combination of publicly traded companies. Some funds may be designed to provide a steady stream of dividend income (income funds), while others are focused more on holding gains (growth or accumulation funds). There are also private equity funds which focus on investing in unlisted companies. Closely associated with equity funds are index funds that are based on a pre-set basket of stocks or index.

- Fixed income or bond funds, which can acquire combinations of the debt securities of corporations and governments.

- Real estate investment funds, which specialize in debt (including mortgages) and equity of companies that purchase real estate. These are sometimes also referred to as real estate investment trusts, but this subsector notably excludes any such similarly termed domestic non-financial corporations set up as trusts, or similar types of funds, which hold real estate as their major asset. In the case of hybrid real estate funds, these would be classified according to the principal activity (i.e., share of value added) and, as such, most of these funds would likely not be included in the financial corporations sector. Mortgage real estate trusts providing mortgage finance or other real estate loans, or purchase mortgage-backed securities, are also included among real estate investment funds.

- Hedge funds are heterogeneous schemes, with high minimum investments balanced with light regulation and a wide range of investment strategies in liquid assets (e.g., short selling, derivatives). This degree of liquidity means that they are usually set up as open-ended funds, although there may be time restrictions on redemptions
- Mixed/balanced funds with a wide variety of investments – stocks, bonds and other investments (including crypto funds and credit funds). Balanced funds offer a combination of safety, income and holding gains. Some such funds stick to a rigid allocation of stocks and fixed income instruments. For other funds the mix is more flexible. Mixed funds should not hold more than 50% of their assets in one type of investment.
- Investment funds investing in other funds (funds of funds). These comprise fettered funds which only invest in funds that are administered by the same management company, and unfettered funds which invest in any fund (including those managed by competing companies). A case can be made for consolidation of fettered funds and individual funds administered by the same management company, though this is not typical because the latter may have shareholders other than funds of funds.

General characteristics of investment funds

29.56 Essentially, MMFs and non-MMF investment funds sell shares or units in the fund (see chapter 5 for a general discussion of trusts). As such, they are separate institutional units with multiple investors/beneficiaries and a complete set of financial records. Management and administration of the funds may be provided internally but are usually outsourced to specialized units. Fund managers may be separate institutional units classified in financial auxiliaries or part of the secondary activities business of other financial institutions such as banks or other deposit-taking corporations.

29.57 It may also be the case that investment funds are set up and/or owned by another institutional unit, such as a pension scheme. In some countries, pension funds may have outsourced part of their investments to a fully owned investment vehicle with a separate legal status and autonomy of decision.

29.58 Investment funds can be set up as either ***open-ended*** or ***closed-ended***. Open-ended funds allow for buying and selling on a regular basis, such that the investment is liquid. The shares or units are, at the request of the holders, repurchased or redeemed directly or indirectly out of the undertaking’s assets. These funds issue new shares to match investors’ demand and retire shares as investors redeem. The shares of open-ended funds can be traded on an exchange (exchange-traded funds) or be unlisted sold directly to investors. At the same time, holders can remain invested in the fund indefinitely. Open-ended funds are sometimes referred to as mutual funds.

29.59 Closed-ended funds only apply to non-MMF investment funds. They have defined maturity periods and investors can be locked in during the maturity period, such that the investment is comparatively less liquid. They issue a limited number of shares that are open for subscription only during a specified period, and new shares or units are rarely issued once the fund has been launched. Thereafter investors can only acquire new shares on the secondary market, either directly or on an exchange (if listed) orsold directly to investors. Private equity funds and private real estate investment funds are examples of closed-end funds. Some personal trusts can also be included here if there are multiple investors/beneficiaries. Otherwise, when the trust is restricted to a strictly limited number of beneficiaries, they would be included under captive financial institutions (see the discussion of trusts in paragraphs 5.103-5.111).

5. Other financial intermediaries, except insurance corporations and pension funds (S125)

29.60 As the name suggests, this subsector contains a heterogenous group of financial intermediaries which raise funds on financial markets (other than deposits or their close substitutes) for the acquisition of various types of assets.

29.61 ***Financial corporations engaged in the securitization of assets*** are special purpose units/vehicles, set up as either trusts or tax-exempt companies with the purpose of pooling loan assets (consumer debt, mortgages, business credit, etc.) and issue marketable asset-backed securities to investors. They are typically set up by the originators or lenders (e.g., a bank) to move segments of assets off their balance sheets and/or to shift their portfolios toward securities with higher liquidity as well a manage risk. Even though the assets are transferred to the special purpose unit/vehicle, the lenders may still administer all aspects of the loans, and the debtors may be unaware of the securitization. The securitization corporations offer asset-backed and mortgage-backed securities with attractive rates of return to a broad range of investors, which can include the lenders themselves. Securitization activity may also include structured securitization (related to alternative funding formats) and synthetic securitization (related to credit risk)

29.62 ***Underwriters, security and derivative dealers*** (operating on own account) are financial corporations (which can include some investment banks activity, see 29.66) that engage in the business of dealing in securities and other financial instruments on their own account. These units are often both dealers and brokers in a transaction, buying and selling from the firm's own inventory of securities. They are financed initially with equity, and typically raise the funds to finance their investments through various means. This can include the returns from secured financing such as collateralized loans to their clients (e.g., repurchase agreements) or securities lending arrangements or from investment strategies (e.g., the proceeds from returns on short positions financing long positions). They may also rely on commercial paper to raise funds. These corporations often also provide portfolio management or investment advising services.

29.63 ***Corporations engaged in lending or leasing*** cover a variety of types of financial institutions. These include the (non-consolidated) sales finance subsidiaries and associates of various retailers such as those involved in the household goods and automobile financing and leasing industries, personal financing corporations (e.g., consumer loan companies), and other companies offering various types of commercial financing and/or leasing. This subsector also includes credit card companies. Entities such as "buy now pay later service providers" might be included here, if they are institutional units and financial corporations.

29.64 ***Central clearing counterparties*** provide clearing and settlement transactions in securities, derivatives and repurchase agreements markets. Clearing relates to identifying the obligations of both parties to a transaction, while settling is the exchange of the securities, derivatives and repurchase agreements and the corresponding payments. The central clearing counterparties involve themselves in transactions as principals (often trading on own account or assuming a counterparty position). They are, effectively, the seller to all buyers and the buyer to all sellers. They mitigate counterparty risk using tools like margin requirements and the practice of monitoring of member firms' creditworthiness. If central clearing counterparties do not act as principals to the counterparties, then they would be considered as corporations that facilitate financial transactions and would be included in financial auxiliaries (with exchanges and settlement institutions).

29.65 ***Bank re-structuring agencies*** that support strategies to liquidate, recapitalize or merge banks as well as the recovery of bank assets. This activity usually takes place under situations of bank financial distress.

29.66 ***Specialized financial corporations*** that provide various types of financing cover a wide range of financial corporations that also constitute financial intermediaries.

- <u>Factoring firms</u> purchase accounts receivable from a business (improving that business' liquidity) by paying the amount due less fees - usually reflected in as a discount from the face value of the receivable, although it is possible that explicit fees are charged as well. Factoring has largely replaced trade bills (i.e., discounted bills of exchange with banks). The factoring firm assumes all (non-recourse factoring) or part (recourse factoring) of the risk of downpayment. The difference between the two types is related to the size of the discount, although there is no difference in the conceptual treatment of these contracts. Factoring constitutes a loan to the debtor (purchaser). Output is typically estimated by the discount offered to the supplier without adjustment for possible credit losses. No corresponding implicit financial services on loans are accounted for, factoring being somewhat different from traditional intermediation. However, in situations of high inflation or increased risk of credit defaults, the full discount may not result in an appropriate measure of output, and a discount adjusted for these factors may provide a more appropriate measure of output.

- *Firms that facilitate corporate reorganizations* (primarily investment banks), including mergers and acquisitions, by providing short-term financing as required. Investment banks assist corporations in raising funds in equity and debt markets and provide strategic advisory services for mergers, acquisitions, and other types of financial transactions. They also invest their own funds, including in the securities of their clients as well as in hedge funds dedicated to investing in corporations. Investment banks do not usually have deposit liabilities that meet the definition of broad money.
- *Firms involved in import/export finance* (which can include public corporations).
- *Venture capital and development capital firms* that provide financial support to start-ups and other businesses with the potential for rapid and significant growth, as well as other venture capital initiatives. These firms usually raise funds from investments by a limited group of partners.

6. Financial auxiliaries (S126)

29.67 Financial auxiliaries constitute a wide-ranging group of corporations engaged in activities associated with or supporting financial transactions and markets or with providing the regulatory context for these transactions. These types of institutional units do not take ownership of the financial instruments being transacted. Corporations facilitating financial transactions, such as central clearing counterparties, stock exchanges, derivative exchanges, and repurchase agreement settlement institutions are financial intermediaries if they generally act as principals to the counterparties to the underlying transactions; otherwise, they are classified as financial auxiliaries.

29.68 Various types of brokers are classified to this subsector. ***Loan brokers*** match borrowers and financial institutions engaged in lending. They try to secure favourable loan options and financing rates on behalf of their clients who are seeking funds. In some economies they are actively involved in promoting real estate financing. ***Securities brokers*** arrange for the purchase or sales of stocks, bonds, and other securities. They can also advise customers regarding financial investments, such that they are grouped with other financial advisory services. However, unlike investment dealers, they do not acquire securities on their own account. ***Insurance brokers*** are independent consultants working with multiple insurance companies on behalf of clients seeking insurance or clients that are already policyholders. Salvage and claims adjusters and insurance and pension consultants perform functions that support the insurance and pension business.

29.69 ***Central supervisory authorities*** of financial intermediaries and/or of financial markets are part of this subsector, but only if they are separate institutional units. The supervisor of financial institutions is typically one (or more than one) public corporation(s) that regulate financial institutions, protecting depositors, policyholders, pension plan members and others, with the purpose of promoting a sound and efficient financial system. ***Securities and exchange boards or commissions*** are generally public corporations that enforce the laws governing securities and derivatives markets. In some economies selected supervisory functions are consolidated within the central bank or part of a government ministry, in which case it is not a separate institutional unit and excluded from this subsector.

Corporations that support financial markets and transactions in different ways are also classified to this subsector:

- ***Foreign exchange bureaus***, or currency exchanges, allow customers to exchange one currency for another. To be included in this subsector they must constitute separate institutional units, that are independent corporations outside of financial corporations that offer similar services, such as banks.
- ***Stock exchange companies*** provide trading in listed shares, but many also offer trading services in other financial instruments such as marketable debt securities and exchange-traded derivatives. In some economies exchanges are more specialized to financial instruments.
- Crypto asset exchanges, trading platforms and other platforms allow users to buy, sell, and stake (i.e., lend) crypto assets for a fee or commission.

- ***Insurance exchanges*** are insurance-related businesses that are set up to allow customers to exchange insurance contracts, thereby spreading the risks associated with those contracts amongst participants.
- ***Flotation corporations*** are firms that manage the issue of securities, including initial public offerings.
- ***Corporations that arrange derivative instruments*** such as swaps, options and futures (**without issuing them)** can be included here, if not consolidated with financial corporations in other subsectors.
- ***Corporations that guarantee bills and similar instruments*** are also classified to this subsector, if not included elsewhere. For example, transferable bills of exchange, which are commonly used in international trade and provide benefits, make the guarantor the third party to the arrangement.
- ***Credit rating agencies*** assess the creditworthiness of an issuer of debt securities with regard to its financial obligations. They evaluate the issuer's overall financial capacity and willingness to make scheduled payments on a specific issue. They are classified as financial auxiliaries.
- ***Corporations that provide infrastructure for financial markets*** exist to ensure that customers (businesses and governments) can make and receive payments securely and efficiently. This covers securities depository companies, custodians, clearing offices that facilitate transactions without acting as a counterparty and nominee companies holding investments for others. This also includes paying for and delivering securities and other financial instruments. It is worth noting that banks and other financial intermediaries are also involved in payments systems, such that the financial infrastructure is interconnected.
- ***Corporations primarily involved in the operation of electronic payment systems*** (including online payment systems and mobile payments platforms) that do not incur liabilities against the activities in the underlying instruments.
- ***Peer-to-Peer (P2P) lending companies and marketplace lending platforms*** (often referred to as crowd funding) may also be included here. These entities facilitate lending of money from individuals and other lenders, often unsecured loans, to unrelated individuals or small businesses thus circumventing traditional financial intermediaries. The loans are for relatively small amounts and made mostly to individuals for consumption or credit refinancing. They operate online by matching individual investors and other lenders with borrowers but assume no liability or potential risk associated with the loans, and the main source of income is the fees collected from borrowers and lenders (if in the rare instance own funds are used for lending, then they would be classified as units in S125).

29.70 ***Institutional investment managers*** are also included in this subsector. These are firms that manage pension funds, investment funds, other funds associated with companies, as well as private funds (which can include estate, trusts and agency accounts). They are responsible for the implementing of a fund's investment strategy and overseeing its trading activities but do not hold the assets. In many economies, the assets under their management are relatively large.

29.71 Three other types of institutional units are included in this subsector. The first is the ***head offices of financial corporations*** which are principally engaged in controlling financial corporations, or groups of financial corporations. These corporations do not undertake the intermediation business of those financial corporations. Some head offices may be consolidated with the financial corporations that they control and would, therefore, not be institutional units to be classified in this subsector. The second is ***resident head offices of foreign banks***, if they do not accept deposits or extend credit on their own account. The third is ***non-profit institutions*** that are independent legal entities serving financial institutions. This would include foundations set up by financial corporations.

7. Captive financial institutions and money lenders (S127)

29.72 Institutional units that provide financial intermediation services, but where their assets and most liabilities are not transacted in open financial markets are classified to this subsector. These corporations transact with a limited group, such as subsidiaries, or subsidiaries under the same holding corporation, or entities that make loans from their own funds provided by one sponsor.

29.73 Different corporate structures give rise to entities with a variety of functions, as included in this subsector:

- ***Holding companies*** are legal entities that hold only the assets (owning controlling levels of equity) of a group of subsidiary corporations and whose principal activity is owning the group without providing any other service to the enterprises in which the equity is held; that is, they do not administer or manage other units. They typically receive income (mostly dividends) from their holdings. They are sometimes referred to as "parent companies", given their ownership of subsidiaries. They may also hold intellectual property rights, for purposes of centralized management over these assets and/or as a means to safeguard these assets from potential claims against operating companies. Holding companies can be domestically or foreign owned. Often holding companies are set up for mergers and acquisitions activity.
- ***Special purpose units*** are legal entities (usually a corporation) that are set up for specific and/or temporary purposes, such as raising funds in open markets to be used by their corporate parent company. The specific purpose might be to finance a large project or complex equity financing deals, while insulating the principal firm from any associated risks. These units are usually set up to obtain specific advantages to the global enterprise provided by the host jurisdiction, such as tax lowering strategies. They are usually foreign owned (i.e., non-resident parent) and are directly or indirectly controlled by non-residents, in which case they are known as special purpose entities (SPEs). Similarly, *brass plate companies* are legal entities that lack any connection to the jurisdiction of incorporation – that is, set up in a foreign country with an office and no material operations. They typically only hold liquid assets unless they are shell companies with no assets and are also often associated with tax lowering strategies. Shell companies can be set up prior to cross-border corporate acquisitions or to provide access to a parent financial company to financial markets abroad. Special purpose units included here exclude securitization vehicles that qualify as separate institutional units and are to be classified as other financial intermediaries.
- ***Conduits, intragroup financiers and treasury functions*** when these functions are taken on by a separate institutional unit. Conduits (often SPEs) typically refer to entities that raise funds, which could be in the form of debt securities, shares, or partnership interest on open financial markets for other affiliated corporations or for various types of public projects. Often the conduit's liabilities are guaranteed by the parent company or government.

29.74 Various types of lenders that provide loans through own funds or through a sponsor are classified to this subsector. ***Moneylenders*** are lenders that can undertake different functions, including making loans, providing cheque-cashing services, money orders, etc. Loans are often at relatively higher rates of interest. ***Pawn shops*** are a type of used merchandise store that provide financing to clients in return for holding an asset for a specified period of time as collateral. They can also make unsecured loans. ***Captive specialized lending institutions*** provide loans from funds received from a sponsor, such as a government unit or an NPISH. They can be involved in various types of lending such as student loans, farm loans, import/export loans (possibly including some factoring), etc. These entities can include public corporations.

29.75 ***Sovereign wealth funds*** (SWFs) are included here if they actively manage their portfolios and provide financial services on a market basis to the general government; otherwise, they are part of the general government sector, unless the unit is a resident of another economy. An SWF is created and owned by the general government to hold, manage or administer assets (including foreign investments) to achieve financial objectives. The funds can originate from various sources, including privatization proceeds, fiscal surpluses and receipts from natural resources, etc.

29.76 ***Trusts and similar wealth holding entities*** that solely hold assets and liabilities (along with the associated property income) for a restricted group of investors or beneficiaries. In the case of a single beneficiary or investor, the accumulated assets should be assigned to the sector of the beneficiary or investor, unless this unit is resident to another economy than its beneficiary or investor. *Estates, trusts and agency accounts/funds* (ETAs) mainly include various types of personal trusts for a restricted group of beneficiaries (see chapter 5 for a general discussion of trusts). In these cases, the restricted group of beneficiaries assumes the risks and rewards. It also includes similar accounts/funds in case a single beneficiary who assumes the risks and rewards is resident in another country. These can include inheritance trusts, trust funds for children, family trusts related to an ongoing incorporated or unincorporated business (e.g., a farm). The fund managers, or trustees, of these units are typically covered in financial auxiliaries, and are not subject to the risks and rewards of the fund. In practice, however, ETAs may be included in elsewhere; given that they are often relatively small, it may be common that some of the funds are derived residually as part of the household sector. In terms of those that can be measured, these would mostly be larger funds. In the case of one beneficiary (sometimes also the trustee in the case of a bare trust), the fund is consolidated with the investor/beneficiary and allocated to the household sector. In the case of a number of beneficiaries assuming the risks and rewards, then the fund is included under closed-end non-MMF investment funds.

8. Insurance corporations (S128)

29.77 The insurance corporations subsector consists of financial intermediaries that offer various forms of insurance to individual institutional units or groups of units. Reinsurance (insurance contracts between insurance companies) is used to manage the risk associated with large, unexpected, claims. These corporations are either called insurance or assurance companies. Some types of insurance companies are more specialized in the products that they offer, and some are general insurers. Independent insurance agents (that sell products for any insurance company) are not part of this subsector, but rather are included in financial auxiliaries. For a full discussion of insurance corporations, refer to chapter 24.

9. Pension funds (S129)

29.78 This subsector consists of social insurance pension funds that are institutional units separate from the units that created them. As such, these units are *autonomous pension schemes* with invested assets (funded plans), that are geared to provide income in retirement as well as other benefits (e.g., death benefits) principally for specific groups of employees and self-employed, including persons temporarily without employment. These pension funds are often organized as trusts (referred to as trusteed pension plans) and they exist because of legislation and/or regulatory framework. They would typically have a board of trustees that oversees the fund. Pension funds can either be defined benefit or defined contribution type of schemes, depending on how the retirement benefits are determined. For a full discussion of pension funds, refer to chapter 24.

D. Non-bank financial intermediation and supplementary instrument details

1. Background

29.79 In most economies the banking industry is well regulated and typically governed by legislation. Deposits can have reserve requirements with the central bank (against client deposits), they may be subject to withdrawal requirements by type of account, and they may also be protected (deposit guarantee schemes). The types of loans banks can make may also be subject to restriction in some jurisdictions. Certain types of other investments may also be limited, such as with derivative trading. Banks may also have to follow certain accounting and supervisory requirements, such as those related to having specific provisions for loan losses and general provisions on losses on other financial assets. As a result, the financial stability risks associated with banks are reasonably well understood and monitored.

29.80 This is not necessarily the case across the diverse group of other financial intermediaries involved in a variety of credit intermediation in the subsectors of financial corporations. For non-bank financial intermediation (NBFI), there are varying degrees of oversight across these subsectors, which can differ from economy to economy. Therefore, it is fair to say that the financial stability risks are less well understood for NBFIs, while at the same time increasing amounts of funds are flowing through these entities. Moreover, many NBFIs may be loosely associated with banks and other financial intermediaries making them more vulnerable to systemic risk.

29.81 The global financial crisis that began in 2007-08 has led to an increased interest in developments within the financial world, particularly non-bank financial intermediation (colloquially referred to as “shadow banking”) and its impact on economic/financial risk as well as sustainability. As this activity has expanded in many economies, it has provided an alternative to bank funding. However, as the financial crisis revealed, it can also present a source of risk to financial stability.

29.82 Non-bank financial intermediaries are discussed in section C above. This section focusses on additional details that can provide a deeper understanding of their activities. The statistical community responded on how to better capture non-bank financial intermediation (NBFI) in macro-economic statistics as part of the G20 Data Gaps Initiative (DGI), specifically, recommendation II.5 of DGI-II. It was acknowledged that the standard breakdowns of the financial corporations sector as well as the standard breakdown of financial instruments in the sequence of economic accounts may not be sufficient to identify associated risks within non-bank financial intermediaries. It was therefore recommended to introduce additional supplementary subsector and instrument details. Without these additional details, in the economies where relevant, much of the relevant parts of this activity would remain “in the shadows”.

2. Further institutional sector breakdowns in the SNA

29.83 As is evident from section C, there are various types of financial institutions within the subsectors of financial corporations. Therefore, following the financial crisis, DGI-II concluded that more granular breakdowns within the financial corporations’ subsectors are important to more clearly distinguish the groups of institutional units involved in non-bank financial intermediation. The purpose is to provide more insight into the possible build-up of financial risk and related spill-over effects from a macroeconomic perspective.

29.84 These supplementary details constitute more significant elements, typically in economies with a more developed financial system. Therefore, they principally apply to jurisdictions where the activities of certain NBFIs are significant. This includes further breakdowns of the following financial subsectors.

Money market funds (MMFs) (S123)

29.85 Money market funds (MMFs) are highly liquid, and tend to be quite engaged in credit intermediation, liquidity transformation and maturity transformation. They are vulnerable to liquidity risk (liable for a run), interest risk, as well as vulnerable to credit problems. There are two basic types of funds for which a supplementary split is recommended; and even though the difference is likely not large, this split can provide some further insight into the systemic risk of MMFs.

- ***Constant net asset value funds***, as the name suggests, aim to maintain a constant value. These are accounted for at amortized cost. This approach values the assets at amortized cost. This amounts to purchase price plus/minus the discount/premium linearly over the life of the asset. However, these funds are subject potential losses and increases in operating costs.
- ***Variable net asset value funds*** allow for fluctuation in values and are accounted for at market prices. In this case, the assets are valued at the prices at which they could be sold in the period, and the share price of such funds can fluctuate and are subject to market risk.

Non-MMF Investment Funds (S124)

29.86 Most non-MMF investment funds shares are open-ended, but closed-ended funds also exist and can vary in size across economies. Therefore, given that these broad types of funds face different risks, and that they have grown rapidly in many economies, this is the high-level supplementary split of this subsector.

- ***Open-ended funds*** are highly liquid and offer frequent redemptions as noted in Section B above). In other words, shares of the funds can be purchased and sold frequently. There is no limit on the number of shares that can be issued in such funds, and they can be purchased through a broker or directly from the fund. At the same time, these funds tend to focus on longer term assets which may not be liquid. This maturity mismatch vulnerability between assets and liabilities can become problematic during times of market stress. Market risk is also a factor.

- ***Closed-ended funds*** are traded on an exchange but are less liquid and face market risk and may also face credit risk. Investors entering or leaving the market must buy or sell existing shares.

29.87 Further, within each type of fund, the risks can vary. Equity funds face quite different risks than bond funds which face different risks than real estate funds or hedge funds. As a result, it is recommended that the supplementary subsector information also include, for both open-ended and closed-ended funds, the following breakdowns to have an enhanced picture of the investment fund industry structure for select economies as well as a more complete sense of potential vulnerabilities in this subsector:

- ***Real estate funds;***
- ***Equity funds;***
- ***Bond funds;***
- ***Mixed or balanced funds;***
- ***Hedge funds; and,***
- ***Other funds***

Other Financial Intermediaries, except insurance corporations and pension funds (S125)

29.88 This subsector has a variety of financial institutions, with each facing different risks, such as credit, market and maturity mismatch risks. As such, it is recommended that the following supplementary or "of which" subsector details be made available to users.

- ***Financial corporations engaged in the securitisation of assets***. Various types of credit instruments are routinely converted to securities and sold to investors. Credit cards have a different risk profile to mortgage loans and, overall, investors know little about the quality of the assets being securitized. Securitization activity can be associated with various risks, including credit and liquidity risks, but also possibly reputational, transaction, compliance, and legal risk. As a result, it is important to produce supplementary statistical information on these vehicles for economies for which this activity is significant. This will allow SNA users access to the securitized assets as well as the short-term and long-term asset-backed securities.
- ***Financial corporations engaged in lending and leasing*** cover a variety of types of lending from the financing arm of retail companies, consumer and other personal loans, various types of commercial financing and leasing, as well as financing via credit cards. In some economies, the funds advanced by these companies are relatively large, such that their balance sheet composition is of interest in terms of credit risk and potential maturity mismatches, since often their external sources of funds are short-term.
- ***Underwriters, security and derivative dealers*** are corporations that engage in the business of dealing in securities and riskier financial instruments on their own account and face market risk and counterparty risk, among other risks. As noted above in Section C, their sources of funding are specialized. Therefore, in countries with well-developed financial systems their activities can be substantial, and therefore their SNA assets and liabilities are of keen interest in relation to financial stability.
- ***Specialised financial corporations*** that provide various types of financing cover a wide range of financial corporations and activities including factoring, investment banking, international trade finance and venture capital, each with risks attached. Growth can be sporadic for some components and steady for others, while each uses different sources of funding. The activities of these special type of financing entities may be significant in certain economies, such that their SNA assets and liabilities are of interest for financial stability purposes.
- ***Central clearing counterparties.*** These provide clearing and settlement transactions in securities, derivatives and repurchase agreements markets, often assuming a counterparty position. As a result, these intermediaries can face a number of potential risks, including counterparty credit risk, liquidity risks, settlement bank risk, custody risk, investment risk, and operational risk (e.g., IT systems risk). Since the global financial crisis, their activity has grown as the share of centrally cleared transactions has expanded. Therefore, their SNA accounts are of interest for financial stability purposes.

Captive financial institutions and money lenders (S127)

29.89 The financial activities and therefore the risks are quite different across the group of financial intermediaries in this subsector. As a result, supplementary breakdowns of the following units are useful for better understanding and monitoring these types of entities, especially in the case of large cross-border transactions and positions.

- ***Trusts, estate and agency accounts (ETAs)***. The beneficiaries of ETAs bear the risk in these arrangements, and there can be a fair bit of private wealth in these types of units in certain countries. Given that there are no restrictions on investments, fund performance depends partly on the decisions of the fund managers and on the developments in various markets in which assets are invested. In this sense, it would be ideal to have some explicit statistics on ETAs, especially in economies where these types of funds are prevalent, and holdings are significant.
- ***(Foreign owned) SPE-type captives*** have generated a lot of interest in recent years, reflecting both their growth as well as a need to better understand their purposes. Little is known about their operations, which can range from raising funds on behalf of a foreign parent to being part of a tax minimization strategy for a global corporation, such that supplementary data could prove beneficial.
- ***Other captive finance companies and moneylenders***. These types of money lenders are often seen as lenders of last resort. As such, they typically charge higher rates of interest than other lenders, sometimes much higher. Therefore, it is useful to have separate data on these types of lending units, as a means of understanding financial fragilities in other sectors, especially the household sector. Increased recourse to these types of lenders sheds light on growing financial fragility in certain segments of the economy.

Insurance corporations (S128)

29.90 As noted in Section C, insurance corporations tend to be significant in many economies. However, they have different lines of business with different risk profiles. Therefore, to better understand potential vulnerabilities in the two broad lines of business – non-life insurance (including reinsurance) and life insurance – separate supplementary SNA financial data are recommended for the following.

- ***Non-life insurance corporations***. Non-life insurance and similar products tend to face relatively more uncertainty that does life insurance. Non-life insurance faces financial performance risk on its investment portfolio (reserves to meet claims) and the risk of associated with inflation which can erode the asset base and increase the costs of claims. However, the main risk to non-life insurance arises from the inability to accurately estimate future claims and expenses and therefore to properly set the premiums for such insurance risk. This is one of the reasons for the existence of re-insurance contracts among insurance companies to help spread this risk. While it may be possible to estimate the "rough likelihood" of say fire damage claims on insured property, this is not the case if these are triggered by any sort of natural disasters such as wildfires, and earthquakes. Natural disasters, operator's incompetence, and intentional damage all randomly affect the fluctuation and size of claims. To compensate for this vulnerability insurance companies usually sell supplementary insurance (or charge higher premiums to insert specific clauses in insurance contracts) related to such potential occurrences.
- ***Life insurance corporations***. Life insurance claims involve a lower degree of uncertainty than do non-life insurance claims. Future life insurance claims are relatively more straightforward to estimate by making use of statistical tools (e.g., morbidity tables, life expectancy and retirement by cohort groups, etc.) which makes for generally lower insurance risk. As a result, and with future payments generally known, life insurance and its products primarily face financial investment performance risk. The main issues evolve around whether investments are sound and whether markets continue to generate sufficient returns to meet current and future claims. In this regard, inflation is also a risk which can reduce the value of their portfolio holdings and the income generated by these assets.

Pension funds (S129)

29.91 Pension funds hold substantial assets in many economies and these assets have grown over time especially in post-World War countries. Pension funds can either be defined benefit or defined contribution types, depending on how the retirement benefits are determined. Both types of schemes primarily face investment/market risk. Good financial performance is important for all pension funds so that they can meet their current and future obligations. However, the parties that bear the overall risk are different between defined benefit risk and defined contribution pension schemes. Further in many countries, the number of defined contribution plans are either larger than, or have begun to overtake, defined benefit pension schemes. Therefore, providing this fundamental supplementary breakdown between the two types of autonomous pension plans is increasingly important.

- ***Defined benefit pension funds*** provide guaranteed levels of pension payouts to scheme members, who are almost exclusively employees. With a defined benefit pension scheme, the retirement payments are determined by an actuarial formula related primarily to the participants' length of service and salaries, as well as by expected retirement ages, mortality rates, etc. This means that individual workers know what they will receive in retirement in relation to years worked. On the other hand, the sponsor/employer of a given defined benefit pension scheme undertake the risk of financial performance. The sponsor/employer might end up with an actuarial deficit on their pension fund if the regular assessment of the viability of the fund to make current and/or future benefit payments indicates insufficient reserves, and this gives rise to an underfunded pension liability which must be extinguished within a stated time frame. This type of actuarial liability is the responsibility of the sponsor and can create a financial burden on employers. Under such a situation, employee contribution rates may also increase at some point, but the primary financial responsibility for an actuarial deficit remains with the employer. ***Defined contribution pension funds*** are based on the scheme members' and their employer's contributions to the pension fund as well as the investment performance of the fund. Under a defined contribution pension scheme, individual contributions are often voluntary and typically matched by the employer. Defined contribution plans also include funds for self-employed persons. Under such a scheme, the retirement benefits are not determined and the financial performance risk and general sufficiency of retirement saving risk is borne by the individual and can present a long-term financial stability risk for some households. , This situation can, under certain circumstances, create a potential future retirees' social support risk for the government.

Table 29.1: Supplementary details for non-depository financial intermediaries

Further breakdowns of financial corporations as agreed in the G-20 DGI-II

Money Market Funds (MMFs) (S123), into:

Constant Net Asset Value MMFs
Variable Net Asset Value MMFs

Non-Money Market Funds (non-MMFs) (S124), into:

Open-end funds
- Real estate funds
- Equity funds
- Bond funds
- Mixed or balanced funds
- Hedge funds
- Other open-end funds

Closed-end funds
- Real estate funds
- Equity funds
- Bond funds
- Mixed or balanced funds
- Hedge funds
- Other closed end funds

Other Financial Intermediaries (OFIs) (S125), into:

Financial corporations engaged in securitisation of assets
Security and derivative dealers
Financial corporations engaged in lending or leasing
Specialised financial corporations
Central clearing counterparties

Captive financial institutions and money lenders (S127), into:
Trusts, estate and agency accounts
Corporate groups' captive financial entities
- Of which: Foreign owned SPE-type captives
  - Other captive finance companies and money lenders

Insurance corporations (S128), into:

Non-life insurance corporations
Life insurance corporations

Pension funds (S129), into:

Defined benefit pension funds
Defined contribution pension funds

3. Further Instrument Breakdowns in the SNA

29.92 The additional recommended details to better monitor and understand non-bank financial intermediation are confined to loans and financial derivatives (discussed in Chapter 25). The supplementary details are as follows:

- ***Loans, of which: repurchase agreements, securities lending with cash collateral, and margin lending***. This was frequently applied in the build-up to the global financial crisis that began in 2007-08, where these funds were often used to increase the leverage of specific entities (using the liquid funds to buy assets that could then be used as collateral to raise more liquid funds, etc.). For theat reason, it is important to have separate information on these types of loans, assessing their impact on liquidity measures and analyzing the degree to which financial corporations' subsectors are involved in liquidity transformation and in creation of additional leverage.

- ***Loans, of which: non-performing loans***. As loans are recorded at nominal value, combining this with information on the amount of loans that are likely not going to be repaid, provides insight into the credit risk run by these entities, as well as a better perspective on the financial position and financial health of specific sectors in the economy.

- ***The market value of loan assets*** is also viewed as useful, but in the form of a memorandum item only for those jurisdictions that can compile such estimates.

- ***Financial derivatives*** information is important to monitor financial stability. For example, credit default swaps played a role during the global financial crisis that began in 2007-08, that created global repercussions. It is important to have data by risk category and sub-instrument, as well as by trading venue.

Table 29.2: Supplementary details for financial instruments as agreed in the GDI-II

Loans (F4)
Of which: Repurchase agreements
Securities lending with cash collateral
Margin lending
Of which: Non-performing loans (loan allowances)
Memorandum item: Market value of loan portfolio
Financial derivatives and employee stock options (F7)
By market risk category
• Foreign exchange
• Single-currency interest rate
• Equity (including employee stock options)
• Commodity
• Credit
• Other
By instrument
• Options
• Forwards and related instruments (other than futures and swaps)
• Futures
• Swaps
• Credit derivatives
• Marketable employee stock options
• Other
By trading venue and clearing status
• Exchange traded
• Over-the-counter (cleared)
• Over-the-counter (not cleared)

E. Link to monetary and financial statistics

1. Introduction

29.93 Chapters 12 and 14 describe the concepts and details of the financial accounts and the balance sheets, respectively. These chapters present the financial transactions and positions of each of the individual institutional sectors of the national economy as well as transactions and positions between residents and non-residents. These accounts are also closely related to the two components of the other changes in assets account (other changes in volume and revaluations) discussed in Chapter 13.

29.94 The information in the financial accounts and balance sheets is of analytical and policy interest in its own right and represents an important part of monetary and financial statistics. While the national accounts provide financial accounts and balance sheets for all sectors, among which the financial corporations sector andubsectors, the monetary and financial statistics (MFS) are primarily concerned with stocks and flows of assets and liabilities of financial corporations only. Both sets of accounts for financial corporations are closely tied to each other. In some economies, the SNA financial corporations' statistics are the source data for the MFS, whereas in others the MFS constitute source data for the SNA financial accounts and balance sheets.

29.95 This section discusses the main similarities and differences between the SNA and the MFS. Further detail on monetary and financial statistics can be found in the Monetary and Financial Statistics Manual and Compilation Guide (MFSMCG), International Monetary Fund. Other useful references include the *Manual on Sources and Methods for the Compilation of ESA Financial Accounts (Eurostat),* the *Monetary Financial Institutions and Market Statistic Manual* (European Central Bank) and in *Financial Production, Flows and Stocks in the SNA* (United Nations and the European Central Bank).

2. Coverage of institutional sectors and sequence of accounts

Sectors and subsectors

29.96 The SNA covers all institutional sectors and subsectors of the economy, with the purpose of constructing an integrated sectoral matrix of transactions, other flows, and balance sheets, as well as a times series by institutional sector and subsector. This structure displays the interactions across sectors and subsectors that shed light on how the economy functions over time. The principal sectors include non-financial corporations; financial corporations; government; non-profit institutions serving households (NPISH); households; the national economy (as the aggregate of the preceding sectors); and the accounts for all flows and stocks between residents and non-residents, from the rest of the world perspective (otherwise understood as the balance of payments, where the perspective of the domestic economy is taken as a starting point). Corporations and governments have subsectors associated with them in significant detail. For non-financial corporations, the subsectors are: public, national private and foreign controlled corporations. Government is split into central, state, and local levels, as well as social security funds (which can be allocated to their level of government). In the case of the financial sector, it is disaggregated into nine unique subsectors, as already explained in section B: central bank, other depository corporations except the central bank, money market funds, non-money market investment funds, other financial intermediaries except insurance corporations and pension funds, financial auxiliaries, captive financial institutions and moneylenders, insurance corporations, and pension funds.

29.97 The MFS puts the emphasis on the financial stocks and flows between key sectors of the economy and between resident institutional sectors and non-residents, with a special focus on financial corporations. As such, it defines and acknowledges the other institutional sectors as counterparts. Some reconcilable differences with SNA exist. The counterpart sectors households and NPISH are aggregated. General government subsectors' counterparts are split into central government and state government and local governments, with social security funds presented at the level of government at which they operate. The counterpart non-financial corporations are split between public and other.

29.98 More significant, but also reconcilable differences, exist for financial corporations. Deposit-taking corporations play an important role in the MFS statistics. The MFS financial corporations sector is divided into three main subsectors: central bank, other depository corporations (ODCs) that combine deposit-taking corporations except the central bank and money market funds (MMFs), and other financial corporations

(OFCs) that combine the SNA financial subsectors, from non-MMF investment funds to pension funds (although the Euro area MFS contains some additional subsector details). For monetary policy purposes, the focus is on the consolidated data for depository corporations. For broader macro-economic analysis, there is increasing focus on the consolidated OFCs data. A final difference in subsector coverage is that offshore banks that do not issue liabilities in broad money (i.e., they only take deposits from non-residents) are classified with other financial corporations in MFS, whereas SNA classifies these as deposit-taking corporations.

Sequence of economic accounts

29.99 The SNA displays a complete set of transactions in the non-financial accounts (production account, generation of earned income account, allocation of earned income account, transfer income account, and capital account) as well as flows (financial transactions and other flows) for each category of financial assets and liabilities and for each of the institutional sectors and subsectors of the national economy and of the rest of the world. The sequence of accounts is completed by the opening and closing balance sheets (i.e., stocks of assets, non-financial as well as financial, and liabilities), which describes the result of a period's transactions and other flows on the assets, liabilities and net worth positions of each sector and subsector.

29.100 The MFS is focused on financial activity and positions of financial corporations, and only presents a partial sequence of accounts restricted to financial accounts, balance sheets, revaluations and volume changes. For each financial instrument, a set of entries equivalent to an asset account is shown, that is: opening stock, transactions, valuation changes, other changes in volume, and closing stock. Where the SNA and MFS overlap, the sequence of accounts is identical. However, the quadruple entry accounting of the SNA (the simultaneous application of vertical and horizontal entries) is not fully possible in monetary statistics, except in the case of pure financial transactions/positions that take place within the sectors covered by the monetary statistics.

Conceptual and accounting differences

29.101 For the most part, the SNA and MFS follow the same principles. It can be stated that the basic accounting rules, concept of residence, time of recording (accrual accounting), and the classification of financial assets and liabilities are consistent between the SNA and MFSMCG. Nevertheless, there are some differences, with the main ones briefly discussed below.

Consolidation

29.102 SNA follows the principle of non-consolidated accounts, such that balance sheet positions as well as transactions and other flows are presented gross so as to match corresponding entries across the institutional sectors and categories. MFS adheres to this general principle but allows for some degree of consolidation in the financial corporations sectors for monetary statistics' purposes. This entails the cancelling out of stocks and flows that arise from financial claims and corresponding obligations among institutional units within the same subsector. The practice involves the three subsectors of the financial corporations' sector: central bank, other depository corporations, and other financial corporations. Unconsolidated data, however, are available.

Classification and breakdowns of financial instruments

29.103 Assets and liabilities are defined similarly for the most part; however, the level of detail can be different between the SNA and MFS with MFS providing some additional details, reflecting the different uses of the two datasets. Some important differences are noted below.

Money measures

29.104 Money is very important as a financial variable. But the wide range of ways in which money is defined in different countries precludes a simple definition in the SNA. The composition of broad money and other monetary aggregates varies widely across countries and encompasses many classes of deposits. In addition, many countries compile a range of money measures, as well as broad liquidity measures. Even within a single country, innovation, deregulation, or technical progress may cause definitions of broad money to shift over time in response to changes in financial instruments and the organization of money markets.

29.105 The MFSMCG offers a more elaborate discussion on money aggregates, focusing on the characteristics of the financial instruments that should be included as part of broad money. The countries have, nonetheless, the discretion to tailor the generic definition to the characteristics of their economy while still ensuring overall consistency in the measure of broad money. Although the specific components of broad money may vary across countries, in all cases the coverage of financial instruments included in broad money is used to identify those financial corporations that issue liabilities included in broad money. Such financial institutions are described as depository corporations.

29.106 The MFS presents currency deposits in more detail than SNA for monetary policy purposes. In addition, the MFS requires a breakdown of all assets and liabilities (excluding equity) into domestic and foreign currency. The SNA does not explicitly require this breakdown, although for certain calculations (e.g., holding gains and losses in foreign currency denominated items in the revaluation account) this split is implied for compilers.

Interbank positions

29.107 In the SNA interbank positions are generally not shown as a separate category under the various financial instruments. The treatment is slightly different in the MFSMCG. Interbank (inter-depository corporations) positions are identified fully by all relevant instrument categories (except for equity). And when there is uncertainty between a loan and a deposit, it is recorded under other deposits.

Equity liability and net worth

29.108 In the SNA, the equity liability of financial corporations is reported at market value or an approximation of this market value for unlisted equity. For the MFS, equity is valued at book value and is split into five components: funds contributed by owners, retained earnings, current year results, general and special reserves, and valuation adjustments.

29.109 In the SNA, net worth is defined as the value of all of the assets owned by an institutional unit in a (sub)sector less the value of its outstanding liabilities (including equity). The MFS does not have a concept of net worth, although a partial net worth (referred to as financial net worth) can be calculated as the difference between financial assets and liabilities (including equity).

Provisions for loan losses

29.110 The treatment of provisions for loan losses is notably different between the SNA and MFS, and both treatments have their distinct purposes. For simplification, the discussion below assumes that all loans are denominated in domestic currency.

29.111 Lending institutions calculate allowances against their loan portfolios, although there may be some instances where this practice is not followed. The *allowance account* is deducted from their loan assets in each period. The changes in the allowance account are typically led by *new provisions* against non-performing loans – that is, loans that are a specified number of days in arrears on principal/interest payments (criteria which can differ across economies). In other words, potential losses are accounted for on an accrual basis, consistent with financial accounting. Loan assets are thus “written down” reflecting *potential losses* as opposed to *actual losses*, or *write-offs* of the assets. The allowance represents an amount considered appropriate to cover estimated losses, with a matching appropriation from retained earnings to reserves on the other side of the ledger.

29.112 The allowance account may contain different types of entries, depending on what has transpired in any given period, which generates a closing balance different from the opening balance. These entries include new provisions (added) on any new nonperforming loans, loan recoveries (deducted) if the loans begin generating payments again, loan write-offs (deducted) removed from the account. Write-offs are permanently removed from loans as a separate adjustment outside of the allowance account, though they are almost always initially accounted for in allowances (as part of non-performing loans) and must be reversed when the losses are realized. In this sense, the terminology is important: The balance item deducted from ongoing loan assets for non-performing loans is called *loan allowances* or *accumulated net provisions on loans*. Likewise, the change in this balance is referred to as the *changes in the loan allowance account* or the *net new provision on loans.* Both net new provisions and write-offs are expensed on the financial corporation's income statement, with write-offs automatically excluded from net provisions (as described above) to avoid double-counting.

29.113 The SNA does not follow the above accounting for these adjustments to loans. Income statement items related to net new provisions and write-offs are not picked up by national accountants for the non-financial accounts, as the provisions are not relevant in this context and write-offs are treated as volume changes. On the SNA balance sheet, accumulated net provisions (or allowances) on loans are ignored. This means that they are added back to the loan balances, and the loan assets are recorded at gross values less any write-offs. In the financial account, transactions are measured as the first difference of these loan balances. Alternatively, if the "net of allowances" source data are used to calculate the transactions, an adjustment is required to account for any changes in the allowance account between periods. More specifically, net new provisions (including write-offs) are added to the first difference of the loan balance to estimate transactions in loans. In the less common instances where loan allowances are not accounted for in the source data, transactions would be measured as the first difference of the loan balances plus write-offs in the period.

29.114 In some jurisdictions, SNA source data may only provide the loans net of allowances with no explicit allowance account. Sometimes the allowance account may only be available annually (and with a lag) from the complete balance sheet statements, but the net provisions on the income statement are usually available quarterly. In these cases, quarterly estimates of the allowance account will have to be made of gross loans by summing the net new provisions for each period. Transactions would then be calculated as described above.

29.115 The SNA treatment can be summarized as follows: loans are shown gross of accumulated provisions or allowances, but write-offs are deducted from loans and shown on the other changes in the volume of assets account; and transactions are adjusted first differences. This treatment has the advantage of reconciling debtor and creditor balances/transactions across the sectors of the economy. Having said that, loan allowances or accumulated net provisions are recommended as a memorandum item in the SNA.

29.116 The MFS has the same treatment as the SNA for write-offs. However, provisions are treated somewhat differently in the MFS. Loan assets are also valued at nominal value and are shown gross, but net accumulated provisions are accounted for as a liability on the balance sheet and recorded under other accounts payable (with a volume change offset in equity). This MFS treatment has the advantage of recognizing the provisions, but this approach is not feasible in the SNA given its requirement to balance all assets and liabilities (in this case, loans and other receivable/payables by creditor and debtor) by instrument across the institutional sectors. However, the SNA does recommend compiling supplementary items on provisions; see chapter 14.