

## Identification of Debt Instruments and Institutional Sectors

*This chapter describes debt instruments and the classification of debt according to the institutional sector of the creditors. The terminology of the 2008 SNA is followed.*

### A. Introduction

**3.1** Debt is a subset of liabilities in the balance sheet. This chapter gives a brief overview of the balance sheet and its components, and shows the relationship between debt and the rest of the balance sheet. It also discusses the classification of debt instruments in detail. Lastly, this chapter discusses the classification of debt instruments according to the institutional sector of the counterparty to the instrument.

### B. Overview of a Balance Sheet

**3.2** *A balance sheet is a statement of the values of the stocks of assets owned and of the liabilities owed by an institutional unit or group of units, drawn up in respect of a particular point in time.*<sup>1</sup> A balance sheet is typically compiled at the end of each accounting period, which is also the beginning of the next accounting period. In macroeconomic statistics balance sheets, a distinction is made between nonfinancial assets, financial assets, liabilities, and net worth.

**3.3** *Net worth of an institutional unit (or grouping of units) is the total value of its assets minus the total value of its outstanding liabilities* and is an indicator of wealth. Net worth can also be viewed as a stock position resulting from the transactions and other economic

flows<sup>2</sup> of all previous periods. *Net financial worth of an institutional unit (or grouping of units) is the total value of its financial assets minus the total value of its outstanding liabilities.*<sup>3</sup>

**3.4** Only economic assets are recorded in the macroeconomic statistical systems. *Economic assets are entities (i) over which economic ownership rights<sup>4</sup> are enforced by institutional units, individually or collectively, and (ii) from which economic benefits may be derived by their owners by holding them or using them over a period of time.*

#### I. Liabilities and financial assets

**3.5** *A liability is established when one unit (the debtor) is obliged, under specific circumstances, to provide funds or other resources to another unit (the creditor).* Normally, a liability is established through a legally binding contract that specifies the terms and conditions of the payment(s) to be made, and payment according to the contract is unconditional. As mentioned in Chapter 2, paragraph 2.8, liabilities can also be created by the force of law, and by events that require future transfer payments.

**3.6** Whenever a liability exists, the creditor has a corresponding financial claim on the debtor. *A financial claim is an asset that typically entitles the owner of the asset (the creditor) to receive funds or other resources from another unit, under the terms of a liability.* Like liabilities, financial claims are uncondi-

<sup>1</sup>Balance sheets can be compiled for the public sector, the general government sector, a subsector of the general government sector, or any other public sector unit or grouping of units.

<sup>2</sup>Other economic flows are flows other than transactions. There are two types of other economic flows: holding gains/losses (revaluations), and other changes in the volume of assets and liabilities. See Appendix 2 for more details.

<sup>3</sup>If calculated the other way around, i.e., as the total value of outstanding liabilities minus the total value of financial assets, the result may be referred to as net financial liabilities.

<sup>4</sup>Economic ownership rights entitle the institutional unit to claim the benefits associated with the use of the asset in the course of an economic activity by virtue of accepting the associated risk.

tional.<sup>5</sup> A financial claim provides benefits to the creditor, such as by acting as a store of value, or by possibly generating interest, other property income, or holding gains. Financial claims consist of equity and investment fund shares, debt instruments, financial derivatives and employee stock options, and monetary gold in the form of unallocated gold accounts. *Financial assets consist of financial claims plus gold bullion held by monetary authorities as a reserve asset.*

**3.7** Debt instruments and equity and investment fund shares are financial instruments that are created when one unit provides funds or other resources (for example, goods in the case of trade credit) to a second unit and the second unit agrees to provide a return in the future. In contrast, financial derivatives are financial instruments of which the underlying contracts involve risk transfer. Thus, rather than supplying funds or other resources, a derivative contract shifts the exposure to the effect of a change in the value of an item between the parties, without a change in ownership of that item.

**3.8** In many cases, liabilities (and their corresponding financial claims) are explicitly identified by formal documents expressing the debtor-creditor relationship. In other cases, liabilities are imputed to reflect the underlying economic reality of a transaction, such as the creation of a notional loan when an asset is acquired under a financial lease. Regardless of how a liability is created, it is extinguished when the debtor pays the sum agreed in the contract.<sup>6</sup>

**3.9** Equity and investment fund shares issued by corporations and similar legal forms of organization are treated as liabilities of the issuing units even though the holders of the claims do not have a fixed or predetermined monetary claim on the corporation. Equity and investment fund shares do, however, entitle their owners to benefits in the form of dividends and other ownership distributions, and they often are held with the expectation of receiving holding gains. In the event the issuing unit is liquidated, shares and other equities become claims on the residual value of the unit after the claims of all creditors have been met.

**3.10** If a public corporation has formally issued shares or another form of equity, then the shares are a liability of that corporation and an asset of the

government or other unit that owns them. If a public corporation has not issued any type of shares, then the existence of other equity is imputed, reflecting the claim of the public sector unit on the residual value of the public corporation.

**3.11** Only actual liabilities (and assets) are included in the balance sheet<sup>7</sup>:

- Contingent assets and liabilities are not recognized as financial assets and liabilities prior to the condition(s) being fulfilled.
- Amounts set aside in business accounting as provisions to provide for a unit's future liabilities, either certain or contingent, or for a unit's future expenditures, are not recognized in the macroeconomic statistical systems.
- No liability is recognized for government promises to pay social security benefits, such as retirement pensions and health care, in the future (see paragraph 2.80).<sup>8</sup>
- Lines of credit, letters of credit, and loan commitments assure funds will be made available in the future, but no financial asset (and liability) in the form of a loan is created until funds are actually advanced.
- Uncalled share capital is contingent unless there is an obligation to pay the amount.
- Environmental liabilities, which are probable and measureable estimates of future environmental cleanup, closure, and disposal costs, are not recognized.

**3.12** Monetary gold in the form of bullion is not a financial claim, which means that it is not the liability of any other unit. Monetary gold does, however, provide economic benefits by serving as a store of value and can be used as a means of payment to settle financial claims and finance other types of transactions. As a result, monetary gold in the form of bullion is, by convention, treated as a financial asset. Monetary gold in the form of unallocated gold accounts is a financial claim and, therefore, a liability of another unit in the form of currency and deposits (see paragraph 3.26).<sup>9</sup>

<sup>5</sup>In addition, a financial claim may exist that entitles the creditor to demand payment from the debtor. However, whereas the payment by the debtor is unconditional if demanded, the demand itself is discretionary on the part of the creditor.

<sup>6</sup>A liability can be extinguished in other ways, such as cancellation by the creditor.

<sup>7</sup>Also see the discussion of contingent liabilities in Chapter 4, paragraphs 4.3–4.26.

<sup>8</sup>However, social security benefits due for payment and not yet paid are included in the balance sheet as accounts payable.

<sup>9</sup>As mentioned in Chapter 2, in principle, the gold bullion element of monetary gold should be excluded from the calculation of net debt. However, in practice, the total amount for monetary gold may have to be used in the net debt calculation because compilers

**3.13 Nonfinancial assets are economic assets other than financial assets.**<sup>10</sup> Typically, the following main categories of nonfinancial assets exist: produced assets (such as fixed assets, inventories, and valuables),<sup>11</sup> and nonproduced assets (such as natural resources, contracts, leases, and licenses, and goodwill and marketing assets). Nonfinancial assets are stores of value and provide benefits either through their use in the production of goods and services, or in the form of property income.

## 2. Relationship between a balance sheet and debt

**3.14** Paragraph 2.3 defines **debt** as all liabilities that require payment(s) of interest and/or principal by the debtor to the creditor at a date, or dates, in the future. In the macroeconomic statistical systems, all liabilities in the balance sheet are debt, except for equity and investment fund shares and financial derivatives and employee stock options.<sup>12</sup> Contingent liabilities are not debt of the guarantor unless and until a certain set of conditions are fulfilled. Debt liabilities consist of **debt instruments** which are discussed, in turn, below.

**3.15** Table 3.1 shows the structure of a balance sheet in the GFS system.<sup>13</sup> The debt instruments, and their counterparts under financial assets, are underlined and in bold font.

**3.16** Because a given financial instrument gives rise to a financial asset and a liability, the same descriptions of instruments can be used for both. For simplicity, the descriptions in this chapter will refer only to “debt instruments,” unless there is a specific need to refer to financial assets or liabilities.

of public sector debt statistics may not be able to exclude the gold bullion element.

<sup>10</sup>By implication, nonfinancial assets do not represent claims on other units and, thus, do not have a corresponding liability. For example, commodities may be traded on organized markets similar to those of traded financial assets, but do not have a corresponding liability.

<sup>11</sup>Examples of fixed assets are buildings, machinery and equipment, weapons systems, cultivated biological resources, computer software, and databases. Examples of inventories are materials and supplies, works in progress, and strategic stocks such as grain and rice. Examples of valuables are precious metals and stones, antiques, and other art objects that are held primarily as stores of value.

<sup>12</sup>Monetary gold in the form of bullion (a reserve asset) is the only financial asset with no corresponding liability. Other monetary gold as a liability is in the form of currency and deposits and, thus, debt.

<sup>13</sup>The classifications of financial assets and liabilities by financial instrument follow the 2008 SNA.

## C. Classification of Debt Instruments

**3.17** Based on the definition of debt, the following are debt instruments:

- Special drawing rights (SDRs);
- Currency and deposits;
- Debt securities;
- Loans;
- Insurance, pension, and standardized guarantee schemes; and
- Other accounts payable/receivable.

**3.18** The classification of debt instruments, like the classifications of all financial assets and liabilities, is based primarily on the degree of liquidity and the legal characteristics of the instruments that describe the underlying creditor-debtor relationships. The liquidity of a financial instrument embraces characteristics such as negotiability, transferability, marketability, and convertibility.

**3.19** In addition to classifying debt instruments by the characteristics of the financial instrument, they are also classified according to the residence of the other party to the instrument (the debtors for financial assets and the creditors for liabilities). Residence is defined in paragraphs 2.94–2.102.

**3.20** The classification of Islamic financial instruments is discussed in the *Monetary and Financial Statistics Manual, 2000*, Appendix 2, Islamic Banking, and *Handbook on Securities Statistics—Debt Securities Issues*, Annex 2, Islamic Debt Securities.

### I. Special drawing rights (SDRs)

**3.21** *Special drawing rights (SDRs) are international reserve assets created by the International Monetary Fund (IMF) and allocated to its members to supplement reserve assets.* The Special Drawing Rights Department of the IMF allocates SDRs among member countries of the IMF (collectively known as the participants). The allocation of SDRs is a liability of the member country and interest accrues on this liability.

**3.22** SDR holdings represent each holder’s unconditional right to obtain foreign exchange or other reserve assets from other IMF members. These financial assets, on which interest accrues, represent claims on the participants collectively and not

**Table 3.1. A Government Finance Statistics Balance Sheet**

	Opening Balance Sheet	Closing Balance Sheet
Nonfinancial assets	789	845
Financial assets	396	392
<u><b>Monetary gold and SDRs</b></u>	80	81
<u><b>Currency and deposits</b></u>	150	128
<u><b>Debt securities</b></u>	0	6
<u><b>Loans</b></u>	115	118
Equity and investment fund shares	12	13
<u><b>Insurance, pension, and standardized guarantee schemes</b></u>	20	21
Financial derivatives and employee stock options	0	0
<u><b>Other accounts receivable</b></u>	19	25
Liabilities	687	780
<u><b>SDRs</b></u>	0	0
<u><b>Currency and deposits</b></u>	102	139
<u><b>Debt securities</b></u>	212	253
<u><b>Loans</b></u>	328	333
Equity and investment fund shares	4	4
<u><b>Insurance, pension, and standardized guarantee schemes</b></u>	19	19
Financial derivatives and employee stock options	0	0
<u><b>Other accounts payable</b></u>	22	32
<i>Net worth (total assets minus total liabilities)</i>	498	457
Some memorandum items:		
<i>Net financial worth (total financial assets minus total liabilities)</i>	-291	-388
<i>Gross debt (debt liabilities)</i>	683	776
<i>Net debt</i>	299	397

Items underlined and in bold are debt instruments and corresponding assets in debt instruments.

Notes:

- In this example, total liabilities are 780 in the closing balance sheet. (Gross) debt is 776 in the closing balance sheet, and is equal to total liabilities, excluding equity and investment fund shares and financial derivatives and employee stock options [780 – 4 – 0].
- Financial net worth is –388 in the closing balance sheet. Net debt is 397 in the closing balance sheet, and is equal to gross debt of 776 minus the corresponding financial assets of 379 (392 – 13 – 0).
- The numbers used in this example are taken from the 2008 SNA numerical example for the general government sector.

on the IMF. A participant may sell some or all of its SDR holdings to another participant and receive other reserve assets, particularly foreign exchange, in return. Participants may also use SDRs to meet liabilities.

**3.23** The creation of SDRs (referred to as allocations of SDRs) and the extinction of SDRs (cancellations of SDRs) are treated as transactions. These transactions, and resulting stock positions, are recorded at the gross amount of the allocation. SDRs are transferable among participants and other official holders. Other methodological issues relating to SDRs—such as in which public sector unit's financial accounts to record the SDR holdings and allocations—are discussed in Chapter 4.

**3.24** In addition to SDRs as a type of financial instrument, SDRs may also be used as a unit of account in which other debt instruments can be expressed.

## 2. Currency and deposits

**3.25** *Currency consists of notes and coins that are of fixed nominal values and are issued or authorized by the central bank or government.* All sectors may hold currency as assets, but normally only central banks and government may issue currency. In some countries, commercial banks are able to issue currency under the authorization of the central bank or government. Currency constitutes a liability of the issuing units. Unissued currency held by a public sector unit is not treated as a financial asset of the public sector or

a liability of the central bank. Gold and commemorative coins that are not in circulation as legal tender, or as monetary gold, are classified as nonfinancial assets rather than currency.

**3.26** *Deposits are all claims, represented by evidence of deposit, on the deposit-taking corporations (including the central bank) and, in some cases, general government and other institutional units.* A deposit is usually a standard contract, open to the public at large, that allows the placement of a variable amount of money. Public sector units may hold a variety of deposits as assets, including deposits in foreign currencies. It is also possible for a government unit to incur liabilities in the form of deposits. For example, a court or tax authority may hold a security deposit pending resolution of a dispute. Public financial corporations (for example the central bank) typically incur liabilities in the form of deposits, including to government units. It may be useful to further classify deposits according to whether they are denominated in the domestic currency or a foreign currency. Unallocated accounts for precious metals are also deposits, except for unallocated gold accounts held by monetary authorities for reserves purposes, for which the asset holding is included in monetary gold, with the counterpart liability being recorded as a deposit (see also paragraph 3.12).<sup>14</sup> Deposits may be transferable or nontransferable.

**3.27** *Transferable deposits comprise all deposits that are (i) exchangeable (without penalty or restriction) on demand at par, and (ii) directly usable for making third-party payments by check, draft, giro order, direct debit/credit, or other direct payment facility. Nontransferable deposits comprise all other financial claims, other than transferable deposits, represented by evidence of deposit.*<sup>15</sup>

### 3. Debt securities

**3.28** *Debt securities are negotiable financial instruments serving as evidence of a debt.* The security normally specifies a schedule for interest payments

<sup>14</sup>See *BPM6* paragraphs 5.74–5.77, for a detailed discussion of monetary gold and gold accounts.

<sup>15</sup>Examples of other deposits are sight deposits that permit immediate cash withdrawals but not direct third-party transfers, savings and fixed-term deposits, overnight and very short-term repurchase agreements that are included in the national measures of broad money, foreign currency deposits that are blocked because of the rationing of foreign exchange as a matter of national policy, and the reserve position in the IMF.

and principal repayments. Examples of debt securities are:

- Bills;
- Banker's acceptances;
- Commercial paper;
- Negotiable certificates of deposit;
- Bonds and debentures, including bonds that are convertible into shares;
- Loans that have become negotiable from one holder to another;
- Nonparticipating preferred stocks or shares;
- Asset-backed securities and collateralized debt obligations; and
- Similar instruments normally traded in the financial markets.

**3.29** *Bills are defined as securities (usually short term) that give holders the unconditional rights to receive stated fixed sums on a specified date.* Bills are issued and usually traded in organized markets at discounts to face value that depend on the rate of interest and the time to maturity. Examples of bills are Treasury bills, negotiable certificates of deposit, bankers' acceptances, promissory notes, and commercial paper.

**3.30** *A banker's acceptance is created when a financial corporation endorses, in return for a fee, a draft or bill of exchange and the unconditional promise to pay a specific amount at a specified date.* Much international trade is financed this way. Bankers' acceptances are classified under the category of debt securities. The banker's acceptance represents an unconditional claim on the part of the holder and an unconditional liability on the part of the accepting financial corporation; the financial corporation's counterpart asset is a claim on its customer. Bankers' acceptances are treated as financial assets from the time of acceptance, even though funds may not be exchanged until a later stage.

**3.31** *Bonds and debentures are securities that give the holders the unconditional right to fixed payments or contractually determined variable payments on a specified date or dates.* The earning of interest is not dependent on earnings of the debtors.

**3.32** *Zero-coupon bonds are long-term securities that do not involve periodic payments during the life of the bond.* Similar to short-term securities, zero-cou-

pon bonds are sold at a discount and a single payment, that includes accrued interest, is made at maturity. *Deep-discount bonds are long-term securities that require periodic coupon payments during the life of the instrument, but the amount is substantially below the market rate of interest at issuance.*

**3.33** Instruments with embedded derivatives are not classified as financial derivatives. If a primary instrument, such as a security or loan, contains an embedded derivative, the instrument is valued and classified according to its primary characteristics—even though the value of that security or loan may well differ from the values of comparable securities and loans because of the embedded derivative. Examples are corporate bonds that are convertible into shares of the same corporation at the option of the bondholder. If the conversion option is traded separately, then the option is treated as a separate instrument, classified as a financial derivative, and it is not debt.

**3.34** Loans (see paragraph 3.39) that have become negotiable from one holder to another are to be reclassified from loans to debt securities under certain circumstances. For such reclassification, there needs to be evidence of secondary market trading, including the existence of market makers, and frequent quotations of the instrument, such as provided by bid-offer spreads.<sup>16</sup>

**3.35** *Nonparticipating preferred stocks or shares are those that pay a fixed income but do not provide for participation in the distribution of the residual value of an incorporated enterprise on dissolution.* These shares are classified as debt securities. Bonds that are convertible into equity should also be classified in this category prior to the time that they are converted.

**3.36** *Asset-backed securities and collateralized debt obligations are arrangements under which payments of interest and principal are backed by payments on specified assets or income streams.* This process is also described as “securitization” (for more details, see Chapter 4). Asset-backed securities are backed by various types of financial assets, for example, mortgages and credit card loans, or government’s future revenue streams. Some future revenues are not recognized as an economic asset in macroeconomic statistics.

<sup>16</sup>An example is a syndicated loan, which is provided by a group of lenders and is structured, arranged, and administered by one or several commercial or investment banks. If parts of a syndicated loan become widely traded, the loan may meet the requirements to be reclassified as a security.

**3.37** *Stripped securities are securities that have been transformed from a principal amount with coupon payments into a series of zero-coupon bonds, with a range of maturities matching the coupon payment date(s) and the redemption date of the principal amount(s).* The function of stripping is that investor preferences for particular cash flows can be met in ways different from the mix of cash flows of the original security. There are two cases of stripped securities:

- When a third party acquires the original securities and uses them to back the issue of the stripped securities. Then new funds have been raised and there is a new financial instrument.
- When no new funds are raised and the payments on the original securities are stripped and marketed separately by the issuer or through agents (such as strip dealers) acting with the issuer’s consent. In this case, there is no new instrument.

**3.38** *Index-linked securities are instruments for which either the coupon payments (interest) or the principal or both are linked to another item, such as a price index or the price of a commodity.* These securities are classified as variable-rate instruments. Issues in the measurement of interest on index-linked securities are discussed in the annex to Chapter 2.

## 4. Loans

**3.39** *A loan is a financial instrument that is created when a creditor lends funds directly to a debtor and receives a nonnegotiable document as evidence of the asset.*<sup>17</sup> This category includes overdrafts, mortgage loans, loans to finance trade credit and advances, repurchase agreements, financial assets and liabilities created by financial leases, and claims on or liabilities to the IMF in the form of loans. Trade credit and advances and similar accounts payable/receivable are not loans (see paragraphs 3.64–3.65). Loans that have become marketable in secondary markets should be reclassified under debt securities (see paragraph 3.34). However, if only traded occasionally, the loan is not reclassified under debt securities.

**3.40** A financial lease involves imputing a loan.<sup>18</sup> When goods are acquired under a financial lease, the lessee is deemed to be the owner, even though legally

<sup>17</sup>A loan is distinguished from a deposit on the basis of the representation in the documents that evidence them.

<sup>18</sup>A financial lease is a contract under which the lessor as legal owner of an asset conveys substantially all risks and rewards of ownership of the asset to the lessee.

the leased good remains the property of the lessor. This is because the risks and rewards of ownership have been, de facto, transferred to the lessee. This change in ownership is deemed to have been financed by an imputed loan, which is an asset of the lessor and a liability of the lessee.

**3.41** *A securities repurchase agreement (repo) is an arrangement involving the sale of securities for cash, at a specified price, with a commitment to repurchase the same or similar securities at a fixed price either on a specified future date (often one or a few days hence) or with an open maturity.*<sup>19</sup> The economic nature of the transaction is that of a collateralized loan (or a deposit<sup>20</sup>) because the risks and rewards of ownership of the securities remain with the original owner (security provider). Thus, the funds advanced by the security taker (cash provider) to the security provider (cash taker) are treated as a loan and the underlying securities remain on the balance sheet of the security provider, despite the legal change in ownership.

**3.42** *Securities lending is an arrangement whereby a security holder transfers securities to another party (security taker), subject to the stipulation that the same or similar securities be returned on a specified date or on demand.* As with a securities repurchase agreement, the risks and rewards of ownership remain with the original owner. If the security taker provides cash as collateral, then the arrangement is a repo (see paragraph 3.41). If the security taker provides noncash collateral, then no transaction is recorded. In either case, the securities involved remain on the balance sheet of the original owner.

**3.43** *A gold swap involves an exchange of gold for foreign exchange deposits with an agreement that the transaction be reversed at an agreed future date at an agreed gold price.* The gold taker (cash provider) usually will not record the gold on its balance sheet, while the gold provider (cash taker) usually will not remove the gold from its balance sheet. In this manner, the transaction is analogous to a repurchase agreement and should be recorded as a collateralized loan or deposit. Gold swaps are similar to securities repurchase agreements except that the collateral is gold. Gold loans occur in the same form as securities lending and should be treated in the same way.

<sup>19</sup>An open maturity exists when both parties agree daily to renew or terminate the agreement.

<sup>20</sup>Repurchase agreements that are included in the national definition of broad money should be classified as nontransferable deposits. All other securities repurchase agreements should be classified under loans.

**3.44** *An off-market swap is a swap<sup>21</sup> which has a nonzero value at inception as a result of having reference rates priced different from current market values (i.e., “off-the-market”).* Such a swap results in a lump-sum being paid, usually at inception, by one party to the other. The economic nature of an off-market swap is equivalent to a combination of borrowing (i.e., the lump sum), in the form of a loan, and an on-market swap (financial derivative). The loan component of an off-market swap is debt and, if a public sector unit receives the lump-sum payment, this loan will be part of public sector debt. For more details, see Chapter 4, paragraphs 4.127–4.131.

## 5. Insurance, pension, and standardized guarantee schemes

**3.45** Insurance, pension, and standardized guarantee schemes comprise:

- Nonlife insurance technical reserves;
- Life insurance and annuities entitlements;
- Pension entitlements;
- Claims of pension funds on pension manager; and
- Provisions for calls under standardized guarantee schemes.

**3.46** These reserves, entitlements, and provisions represent liabilities of a public sector unit as the insurer, pension fund, or issuer of standardized guarantees, and a corresponding asset of the policyholder or beneficiaries. It is usually public financial corporations that engage in insurance schemes. General government units may incur liabilities for these reserves, entitlements, and provisions and operators of nonlife insurance schemes, nonautonomous or unfunded pension schemes, and standardized guarantee schemes.<sup>22</sup>

**3.47** The following paragraphs briefly define the types of reserves, entitlements, and provisions applicable to insurance, pension, and standardized guarantee schemes. These issues are discussed in detail in *2008 SNA* Chapter 17 and their valuation is discussed in Chapter 2, paragraphs 2.135–2.138, of this *Guide*.

<sup>21</sup>A swap contract involves the counterparties exchanging, in accordance with prearranged terms, cash flows based on the reference prices of the underlying items.

<sup>22</sup>It is unlikely that a general government unit would incur liabilities with respect to life insurance and annuities, unless it provides such schemes to its employees.

### **a. Nonlife insurance technical reserves**

**3.48** *Nonlife insurance technical reserves consist of (i) prepayments of net nonlife insurance premiums and (ii) reserves to meet outstanding nonlife insurance claims.* In other words, nonlife insurance technical reserves consist of premiums paid but not yet earned (called unearned premiums) and claims incurred but not yet settled.<sup>23</sup>

**3.49** Premiums are usually paid at the beginning of the period covered by the policy. On an accrual basis, the premiums are earned through the policy period, so that the initial payment involves a prepayment or advance. It also includes reserves for unexpired risks.

**3.50** Reserves against outstanding insurance claims are amounts identified by insurance corporations to cover what they expect to pay out arising from events that have occurred but for which the claims are not yet settled. Other reserves, such as equalization reserves, may be identified by insurers. However, these are recognized as liabilities (and corresponding assets) only when there is an event that gives rise to a liability. Otherwise, equalization reserves are internal accounting entries by the insurer that represent saving to cover irregularly occurring catastrophes, and thus do not represent any existing corresponding claims for policyholders.

### **b. Life insurance and annuities entitlements**

**3.51** *Life insurance and annuities entitlements are financial claims policyholders have against an enterprise offering life insurance or providing annuities.*

**3.52** This category consists of reserves of life insurance companies and annuity providers for prepaid premiums and accrued liabilities to life insurance policyholders and beneficiaries of annuities. Life insurance and annuity entitlements are used to provide benefits to policyholders upon the expiry of the policy, or to compensate beneficiaries upon the death of policyholders, and thus are kept separate from shareholders' funds. These entitlements are regarded as liabilities of the insurance companies and assets of the policyholders and beneficiaries. Annuities entitlements are the actuarial calculation of the present value of the obligations to pay future income until the death of the beneficiaries.

<sup>23</sup>This includes cases where the amount is in dispute or the event leading to the claim has occurred but has not yet been reported (called claims outstanding).

### **c. Pension entitlements**

**3.53** *Pension entitlements are financial claims that existing and future pensioners hold against either their employer, or a fund designated by the employer, to pay pensions earned as part of a compensation agreement between the employer and employee.* The nature of these claims, and the corresponding liabilities of the units operating the pension funds, depends on the type of benefits promised.

**3.54** The two main types of pension schemes are **defined-benefit schemes** and **defined-contribution schemes**.<sup>24</sup> In a defined-benefit scheme, the level of pension benefits promised by the employer to participating employees and other family members is guaranteed and usually is determined by a formula based on participants' length of service and salary. In a defined-contribution scheme, the level of contributions to the fund by the employer is guaranteed, but the benefits that will be paid depend on the assets of the fund.

**3.55** A pension fund for public sector employees can be managed on behalf of the public sector unit by a public or private insurance corporation, or it can be organized and managed by the public sector unit as an autonomous or nonautonomous pension fund. A pension scheme operated by an insurance corporation or as an autonomous pension fund can have a net worth, positive or negative, if the assets of the fund exceed or fall short of the fund's liability for the retirement benefits. As with other public corporations, this net worth is owned by the employer or employers that established the fund. A nonautonomous pension fund is not a separate unit and the assets of the fund belong to the employer. The employees, however, have a claim against the employer who operates the nonautonomous fund, and the employer has a liability equal to the present value of the promised benefits.

**3.56** In addition to liabilities of pension funds, liabilities of unfunded pension schemes are included in this category. By its nature, an unfunded scheme must be organized and managed by the employer, which may be a general government unit or a public corporation.

**3.57** With respect to social security schemes,<sup>25</sup> no liability is recognized in the macroeconomic statistical systems for government promises to pay retirement pensions and other benefits in the future, regardless

<sup>24</sup>Defined-contribution schemes are also referred to as "money-purchase schemes."

<sup>25</sup>Social security schemes are defined in Chapter 2, paragraphs 2.44–2.45.



of the level of assets in a social security fund or other segregated accounts.<sup>26</sup> Liabilities for the payment of benefits that were due to be paid but have not yet been paid are classified as other accounts payable. If a social security fund also acts as a pension scheme (as is sometimes the case for benefits for present and former government employees), those pension obligations are included under pension entitlements, but not the pension fund's social security obligations.

**3.58** As well as pensions, some schemes may have other related liabilities, such as for health benefits, which are included under entitlements to nonpension benefits. In addition to its pension entitlement liabilities to its beneficiaries, a pension fund may sometimes have a claim on the employer, other sponsor, or some other party such as an administrator of the scheme. On the other hand, the sponsor or some other party may have a claim on a surplus of the fund. Such claims are classified as claims of pension funds on sponsors under insurance, pension, and standardized guarantee schemes.

**3.59** There are assumptions and different methods in the measurement of pension fund entitlements, so the nature of coverage and estimation should be stated in metadata accompanying the debt statistics.

#### **d. Claims of pension funds on pension manager**

**3.60** An employer may contract with a third party to administer the pension funds for their employees. If the employer continues to determine the terms of the pension schemes and retains the responsibility for any deficit in funding as well as the right to retain any excess funding, the employer is described as the pension manager and the unit working under the direction of the pension manager is described as the pension administrator. If the agreement between the employer and the third party is such that the employer passes the risks and responsibilities for any deficit in funding to the third party in return for the right of the third party to retain any excess, the third party becomes the pension manager as well as the administrator.

**3.61** When the pension manager is a unit different from the administrator, with the consequences that

responsibility for any deficit, or claims on any excess, rest with the pension manager, the claim of the pension fund on the pension manager is shown under this heading. (If the pension fund makes more investment income from the pension entitlements it holds than is necessary to cover the increase in entitlements and the difference is payable to the pension manager of the scheme, then the pension manager has a claim on the pension fund.)

#### **e. Provisions for calls under standardized guarantee schemes**

**3.62** *Standardized guarantees are those kinds of guarantees that are issued in large numbers, usually for fairly small amounts, along identical lines.*<sup>27</sup> There are three parties involved in these arrangements: the borrower (debtor), the lender (creditor), and the guarantor. Either the borrower or lender may contract with the guarantor to repay the lender if the borrower defaults. Examples are export credit guarantees, deposit guarantees, and student loan guarantees. Although it is not possible to establish the probability of any one loan defaulting, it is standard practice to estimate the default rate<sup>28</sup> of a batch of similar loans. If the guarantor is working along purely commercial lines, the expectation would be for all fees to be paid, plus the property income earned on the fees and any reserves, to cover the defaults on outstanding contracts along with the costs and leave a profit. This is exactly the same paradigm as operates for nonlife insurance and a similar treatment is adopted for these "standardized guarantees." This involves including transactions and balance sheet items parallel to those for nonlife insurance.

**3.63** Standardized guarantees may be provided by a financial institution including, but not confined to, insurance corporations. They may also be provided by government units. It is possible (but unlikely) that nonfinancial corporations provide these kinds of guarantees. When a unit offers standardized loan guarantees, it accepts fees and incurs liabilities to meet the call on the guarantee.

<sup>26</sup>The *GFSM* includes obligations for social security benefits as a memorandum item in the balance sheet. The present value of the social security benefits that have already been earned according to the existing laws and regulations but are payable in the future should be calculated in a manner similar to the liabilities of an employer pension scheme.

<sup>27</sup>In contrast, one-off guarantees are individual, and guarantors cannot reliably estimate the risk of calls. As a result, in most cases, one-off guarantees are not considered debt of the guarantor (unless and until such guarantees are called). See Chapter 4, paragraphs 4.15–4.16.

<sup>28</sup>This default rate establishes the debt liability arising from standardized guarantees.

## 6. Other accounts payable/receivable

**3.64** *Other accounts payable/receivable consist of trade credits and advances and miscellaneous other items due to be paid or received.* Trade credit and advances (supplier's credit) include (1) trade credit extended directly to purchasers of goods and services and (2) advances for work that is in progress or to be undertaken, such as progress payments made during construction in advance for work being done, or for prepayments of goods and services. Such credit arises both from normal delays in receiving payment and from deliberate extensions of vendor credit to finance sales. Trade credit extended by the seller of goods and services does not include loans, debt securities, or other liabilities that are provided by third parties to finance trade. If a government unit issues a promissory note or other security to consolidate the payment due on several trade credits, then the note or security is classified as a debt security.

**3.65** Miscellaneous other accounts payable/receivable include accrued but unpaid taxes, dividends, purchases and sales of securities, rent, wages and salaries, social contributions, social benefits, and similar items. It also includes payments that have not yet accrued, such as prepayments of taxes. In principle, accrued but unpaid interest should be added to the principal of the underlying asset rather than included in this category. Taxes receivable and/or wages payable should be separately indicated if the amounts are substantial.

**3.66** By definition, accounts payable/receivable are accrual concepts and do not exist in an accounting system that uses a pure cash basis of recording.

### D. Classification of the Counterparty by Institutional Sector

**3.67** The preceding section discussed the classifications of debt instruments based on the characteristics of the instrument underlying the claim. For a fuller understanding of general government or public sector debt, the counterparties to these financial relationships (i.e., the holders) are also relevant.<sup>29</sup> An analysis of the economic sectors providing the financing (i.e., the sources of funding) for general government or public sector operations complements an analysis of the type

<sup>29</sup>Two parties are associated with all debt instruments. As a result, it is possible to cross-classify the issuers of the debt instruments with the counterparty creditor. This should be compiled separately for financial assets and liabilities.

of debt instruments used. Debtor-creditor relationships between subsectors are key for proper consolidation of public sector debt statistics. A classification of debt according to whether the counterparty is a public or private nonfinancial or financial corporation, respectively, will be necessary to compile accurate consolidated public sector debt statistics.

**3.68** For debt instruments that are claims of resident institutional units, the second party to the instruments can be classified to the following institutional sectors:

- General government;
- Central bank;
- Deposit-taking corporations except the central bank;
  - Public deposit-taking corporations except the central bank
  - Private deposit-taking corporations except the central bank
- Other financial corporations<sup>30</sup>;
  - Other public financial corporations
  - Other private financial corporations
- Nonfinancial corporations;
  - Public nonfinancial corporations
  - Private nonfinancial corporations
- Households and nonprofit institutions serving households.

**3.69** For debt instruments that are claims by non-residents, the second party to the instruments can be:

- General government;
- Central banks;
- International organizations;
- Financial corporations not elsewhere classified; or
- Other nonresidents.

**3.70** The definitions of institutional sectors are provided in Chapter 2 of this *Guide*, and are discussed more extensively in Chapter 2 of the *GFSM* and Chapter 4 of the *2008 SNA*. Issues in identification of counterparties of traded debt securities are discussed in Chapter 7 of this *Guide*.

<sup>30</sup>In other words, financial corporations other than deposit-taking corporations.

**3.71** Securities repurchase agreements (repos) and securities lending are defined in paragraphs 3.41–3.42. In many economies, high proportions of government-issued securities are subject to such arrangements. In both cases, the legal title is conveyed to another party under these arrangements, but the economic ownership

of the security does not change. In this situation it is important to know how the data source records the ownership—by economic owner or the legal owner—so as to help ensure that the counterparty is correctly identified.

