

# Selected Issues in Public Sector Debt

*This chapter provides guidance on selected issues that may arise in the recording of flows and stock positions related to public sector debt. These issues include contingent liabilities, debt reorganization, debt write-offs, and other debt-related operations.*

## A. Introduction

**4.1** In the recording of public sector debt, most methodological issues arise with the flows (“transactions” and “other economic flows”) associated with the debt liabilities rather than with the stock positions. However, because stock positions are affected by flows, this chapter focuses on both.

**4.2** Definitions and the statistical treatment of contingent liabilities and several types of debt reorganization are discussed first. The remainder of this chapter provides guidance on a range of other methodological issues relating to debt. Where possible, numerical examples are included to illustrate the statistical treatment of the event. These examples follow the presentation of the integrated *GFSM* analytic framework.

## B. Contingent Liabilities

### I. Introduction

**4.3** Contingent liabilities create fiscal risks<sup>1</sup> and may arise from deliberate public policy or from unforeseen events, such as a financial crisis. The *GFSM* recommends that some contingent liabilities of a public sector unit are recorded in the form of memorandum items to the balance sheet.

<sup>1</sup>At the most general level, fiscal risks may be defined as any potential differences between actual and expected fiscal outcomes (for example, fiscal balances and public sector debt). Contingent liabilities are a specific source of fiscal risk. See Chapter 9 for a discussion of fiscal risks and vulnerability.

**4.4** Given the need for public sector debt statistics compilers and analysts to monitor contingent liabilities, this section lays out a typology of contingent liabilities. The typology is mainly based on the *2008 SNA*, *BPM6*, the *External Debt Guide*, the *ESA95 Manual on General Government Deficit and Debt*, and related country experience. The typology supplements traditional approaches to public sector analysis. Figure 4.1 provides an overview of liabilities and contingent liabilities. The remainder of this section defines contingent liabilities and discusses the different types of contingent liabilities, how they may be measured, and the statistical treatment of one-off guarantees.

### 2. Definition

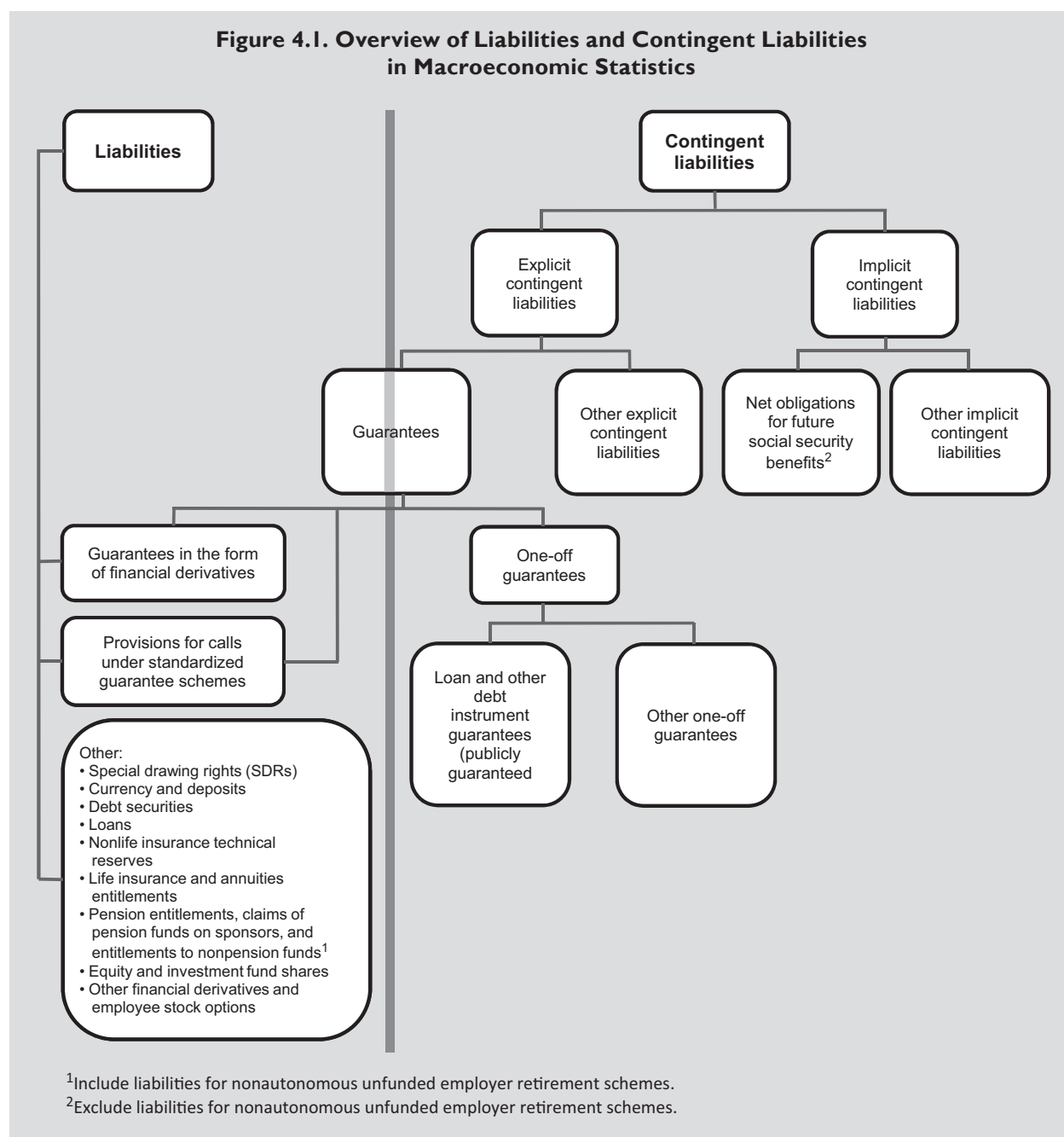
**4.5** *Contingent liabilities are obligations that do not arise unless a particular, discrete event(s) occurs in the future.* A key difference between contingent liabilities and liabilities<sup>2</sup> (and public sector debt) is that one or more conditions must be fulfilled before a financial transaction is recorded. With contingent liabilities, there is typically uncertainty over whether a payment will be required or not, and its potential size.<sup>3</sup>

**4.6** In general, contingent liabilities are not recognized as liabilities in macroeconomic statistics unless and until certain specified conditions prevail. However, for standardized guarantees (see paragraphs 4.12–4.13), the proportion of guarantees likely to be called for the pool of similar guarantees is treated as a liability, even though each individual arrangement

<sup>2</sup>Liabilities refer to those obligations recognized on a macroeconomic statistics balance sheet in the calculation of an institutional unit’s net worth. Contingent liabilities are not included in the calculation of net worth.

<sup>3</sup>Uncertainty about the valuation of liabilities as a result of market prices does not make these liabilities contingent liabilities. These instruments remain liabilities to be recorded on the balance sheet.

**Figure 4.I. Overview of Liabilities and Contingent Liabilities in Macroeconomic Statistics**



involves a contingent liability.<sup>4</sup> In some cases, specific guidance is needed to determine whether an instrument is a liability (and financial asset for the counterparty) or a contingent liability. Banker's acceptances are treated as financial assets (and liabilities) even

<sup>4</sup>Standardized guarantees involve the same paradigm operating for nonlife insurance and a similar treatment is adopted.

though no funds may have been exchanged.<sup>5</sup> There are other circumstances where future payments are not treated as liabilities (or financial assets), even

<sup>5</sup>A banker's acceptance involves financial institutions accepting drafts or bills of exchange and the unconditional promise to pay a specific amount at a specified date. The banker's acceptance represents an unconditional claim on the part of the holder and an unconditional liability on the part of the accepting bank; the bank's counterpart asset is a claim on its customer.

though the size of the payment and the fact that it will be paid are known with a high degree of certainty. For example, an enterprise's future payments under a sales contract or future tax payments to government are not recorded as liabilities until an event occurs that creates a liability, such as the receipt of goods and services under a sales contract.

**4.7** A distinction is made between **explicit** and **implicit** contingent liabilities. In all macroeconomic statistical systems, *explicit contingent liabilities are defined as legal or contractual financial arrangements that give rise to conditional requirements to make payments of economic value. The requirements become effective if one or more stipulated conditions arise. Implicit contingent liabilities do not arise from a legal or contractual source but are recognized after a condition or event is realized.* While the focus of this *Guide* (and other macroeconomic statistical systems) is largely on explicit contingent liabilities, the importance of implicit contingent liabilities is discussed in Chapter 9, under Fiscal Risks and Vulnerability.

### 3. Explicit contingent liabilities

**4.8** Explicit contingent liabilities can take a variety of forms although guarantees are the most common. However, not all guarantees are contingent liabilities; some are liabilities. Different types of guarantees and their relation to contingent liabilities are discussed below.

**4.9** Examples of contingencies in a form other than guarantees are:

- Potential legal claims, which are claims stemming from pending court cases;
- Indemnities, which are commitments to accept the risk of loss or damage another party might suffer; and
- Uncalled share capital, which is an obligation to provide additional capital, on demand, to an entity of which it is a shareholder (such as an international financial institution).

#### a. Types of guarantees

**4.10** Three classes of guarantees are considered in the *2008 SNA*: guarantees that meet the definition of a financial derivative, standardized guarantees, and one-off guarantees.

#### i. Guarantees in the form of financial derivatives

**4.11** The first class of guarantees are those provided by means of a financial derivative, such as a credit default swap. In macroeconomic statistics, asset and liability positions in these types of financial derivatives—as for other financial derivatives—are financial assets and liabilities but not debt (see paragraph 2.6). Liabilities (and financial assets) in the form of financial derivatives are thus excluded from the **debt** presentation Tables 5.1–5.10, and from Table 5.12 on explicit contingent liabilities and net obligations for future social security benefits. However, as recommended in paragraphs 5.50–5.52), presenting information on financial derivative positions along with debt statistics—as shown in Table 5.11—may be important because these contracts can add to a public sector unit's liabilities and lead to significant losses.

#### ii. Standardized guarantees

**4.12** *Standardized guarantees are those kinds of guarantees that are issued in large numbers, usually for fairly small amounts, along identical lines.* There are many guarantees of similar characteristics and a pooling of risks, and guarantors are able to estimate the average loss (default rate) based on available statistics by using a probability-weighted concept.<sup>6</sup> Examples of standardized guarantees are guarantees for export (trade) credit, exchange rates, various types of insurance (such as deposit, crop, or natural disaster insurance), agriculture loans, mortgage loans, student loans, and small and medium enterprise (SME) loans.

**4.13** Although it is not possible to establish whether any one guarantee will be called, it is standard practice to estimate the **default rate** of a pool of similar guarantees. This default rate establishes a **debt liability**—not a contingent liability—for a public sector unit, which is referred to as “provision for calls under standardized guarantee schemes.” This liability is part of the debt instrument “insurance, pension, and standardized guarantee schemes.” The value recorded in the public sector unit's balance sheet is the expected level of claims under current guarantees minus any expected recoveries.<sup>7</sup>

<sup>6</sup>The treatment of standardized guarantees is similar to that of nonlife insurance. For more details, see Chapter 3 in this *Guide*, paragraphs 3.62–3.63, and *2008 SNA*, Chapter 17, Part 3.

<sup>7</sup>Transactions in financial assets and liabilities for provisions for calls under standardized guarantee schemes are similar to the reserves for nonlife insurance; they include unearned fees and calls not yet settled.

### iii. One-off guarantees

**4.14** *One-off guarantees comprise those types of guarantees where the debt instrument is so particular that it is not possible to calculate the degree of risk associated with the debt with any degree of accuracy.*

In contrast to standardized guarantees, one-off guarantees are individual, and guarantors are not able to make a reliable estimate of the risk of calls.

**4.15** In most cases, a one-off guarantee is considered a contingent debt liability of the guarantor. Debt under one-off guarantees continues to be attributed to the debtor, not the guarantor, unless and until the guarantee is called.

**4.16** In contrast, a one-off guarantee granted by government to a corporation in financial distress and with a very high likelihood to be called is treated as if the guarantee is called at inception.<sup>8</sup> The activation of such a one-off guarantee is treated as debt assumption (see paragraphs 4.56–4.57) and this liability is part of the public sector unit's balance sheet (and debt).

**4.17** One-off guarantees may be grouped into loan and other debt instrument guarantees and other one-off guarantees:

- **Loan and other debt instrument guarantees**—or “one-off guarantees” of payment—are commitments by one party to bear the risk of nonpayment by another party. Guarantors are only required to make a payment if the debtor defaults. *Loans and other debt instrument guarantees constitute publicly guaranteed debt, defined as debt liabilities of public and private sector units, the servicing of which is contractually guaranteed by public sector units* (see paragraphs 5.36–5.41, Chapter 5).
- The category **other one-off guarantees** includes credit guarantees (such as lines of credit and loan commitments), contingent “credit availability” guarantees, and contingent credit facilities. Lines of credit and loan commitments provide a guarantee that undrawn funds will be available in the future, but no financial liability/asset exists until such funds are actually provided. Undrawn lines of credit and undisbursed loan commitments are

contingent liabilities of the issuing institutions—generally, banks. Letters of credit are promises to make payment upon the presentation of pre-specified documents.

Underwritten note issuance facilities (NIFs) provide a guarantee that a borrower will be able to issue short-term notes and that the underwriting institution(s) will take up any unsold portion of the notes. Only when funds are advanced by the underwriting institution(s) will a liability/asset be created. The unutilized portion is a contingent liability. Other note guarantee facilities providing contingent credit or back-up purchase facilities are revolving underwriting facilities (RUFs), multiple options facilities (MOFs), and global note facilities (GNFs). Bank and nonbank financial institutions provide back-up purchase facilities. Again, the unutilized amounts of these facilities are contingent liabilities.

**4.18** Loan and other debt instrument guarantees (publicly guaranteed debt) differ from the other types of one-off guarantees. This is because the guarantor guarantees the servicing of the **existing** debt of other public and private sector units. With the other one-off guarantees, no financial liability/asset exists until funds are actually provided or advanced.

**4.19** Information on the stock positions of publicly guaranteed debt can be particularly relevant for public financial policy and analysis. This *Guide* recommends to show publicly guaranteed debt (one-off guarantees of loans and other debt instruments), at nominal value, as a memorandum item to the public sector debt statistics (see Table 5.1), and details are provided in a separate table (see Tables 5.8a and 5.8b).

**4.20** Because one-off guarantees are explicit contingent liabilities, all one-off guarantees are included in Table 5.12—a register of significant contingent liabilities providing details on the different types of explicit contingent liabilities and on net obligations for future social security benefits (an implicit contingent liability—see paragraph 4.21 below).

## 4. Implicit contingent liabilities

**4.21** As explained in paragraph 4.7, implicit contingent liabilities do not arise from a legal or contractual source but are recognized when a condition or event is realized. Examples of implicit contingent liabilities are the net obligations of future social security benefits, ensuring solvency of the banking sector, covering the obligations of subnational (state and local)

<sup>8</sup>Such treatment should be undertaken with caution, not least to avoid double-counting of the debt and inconsistencies with other macroeconomic statistics (which still record the claim to the original debtor). Eurostat uses the following practical guidance with regard to publicly guaranteed debt: If government, as a guarantor, makes a payment on an existing guaranteed debt in three consecutive years, and this situation is expected to continue, then the debt is considered to be assumed, normally in its entirety (or for the proportion government is expected to repay, if there is evidence of that).

governments, or the central bank, in the event of default, environmental liabilities, unguaranteed debt of public sector units, obligations to meet the guarantees of other public sector units if they cannot meet them, and spending for natural disaster relief.

**4.22** This *Guide* recommends including net obligations for future social security benefits<sup>9</sup> in a register of significant contingent liabilities, as shown in Table 5.12. Other implicit contingent liabilities that can be identified may also be included, if considered significant and/or analytically useful.

## 5. Measuring contingent liabilities

**4.23** Standards for measuring contingent liabilities are still evolving because these liabilities are complex arrangements and no single measurement approach can fit all situations. Nonetheless, monitoring and measurement of contingent liabilities are encouraged, with a view to enhancing transparency. For example, a register of significant contingent liabilities of a public sector unit may be compiled as shown in Table 5.12.

**4.24** There are several approaches to valuing contingent liabilities.<sup>10</sup> As noted in paragraph 4.19, this *Guide* recommends to show guaranteed public sector debt (one-off guarantees of loans and other debt instruments) at nominal value. Credit guarantees (such as lines of credit and loan commitments), contingent “credit availability” guarantees, and contingent credit facilities are recorded at their nominal amounts. Limitations of this approach are that it offers no information on the likelihood of the contingency occurring and it may overstate the possible risk. For loan and other debt instrument guarantees, the maximum potential loss is likely to be less than their nominal value, because not all debts will default. Several alternative methods of valuing the expected loss may be applied, each with its own limitations and advantages. These methods range from relatively simple techniques requiring the use of historical data to complex options-pricing techniques (see Box 4.1). The actual approach adopted will depend on the availability of information on the type of contingency. For this reason, it is particularly important

<sup>9</sup>Liabilities for nonautonomous unfunded employer pension schemes are liabilities and part of public sector debt when the employer is a public sector unit.

<sup>10</sup>Some of these techniques are discussed in the *External Debt Guide 2003*, Chapter 9, and *Public-Private Partnerships, Government Guarantees, and Fiscal Risk*, International Monetary Fund, 2006, pp. 37–40.

to provide metadata on the method(s) used to value contingent liabilities.

## 6. Statistical treatment of one-off guarantees provided by public sector units

**4.25** In most cases, the granting of a one-off guarantee is considered a contingency and is not recorded as a liability for the guarantor. The **activation** of a one-off guarantee in the form of loan and other debt instruments is an economic event following the granting of a one-off guarantee and is treated in the same way as a debt assumption (see paragraphs 4.56–4.57). The original debt is extinguished and a new debt is created between the guarantor (who becomes the new debtor) and the creditor. The guarantor is deemed to make a capital transfer to the original debtor, unless the guarantor acquires an effective financial claim on the original debtor, in which case it leads to the recognition of a financial asset (a liability of the original debtor).

**4.26** The activation of a guarantee may require full and immediate repayment of debt. The accrual principle for time of recording requires that the total amount of debt assumed is recorded at the time the guarantee is activated and the debt assumed. Assumption under a one-off guarantee is recorded when the call on the guarantee is made or when it is well established that such a call will be made. A one-off guarantee granted by a government to a corporation in financial distress, and with a very high likelihood to be called, is treated as if the guarantee was called at inception (see paragraph 4.16). A particular case in point is a bailout by government, which is discussed in paragraphs 4.109–4.118. Repayments of principal by the guarantor (the new debtor) and interest accruals on the assumed debt are recorded as these flows occur.

## C. Debt Reorganization

**4.27** *Debt reorganization (also referred to as debt restructuring) is defined as an arrangement involving both the creditor and the debtor (and sometimes third parties) that alter the terms established for servicing an existing debt.* Governments are often involved in debt reorganization, as debtor, creditor, or guarantor.

**4.28** Debt reorganization usually involves relief for the debtor from the original terms and conditions of debt obligations. This may be in response to liquidity constraints, where the debtor does not have the cash to meet debt-service payments due, or sustainability



### Box 4.1. Some Alternative Measures of Valuing the Expected Loss from Loan and Other Debt Instrument Guarantees

If the expected loss can be calculated, an additional approach is to value this loss(es) in present-value terms—expected present value. In other words, since any payment will be in the future and not immediate, the expected future payment streams could be discounted using a market rate of interest faced by the guarantor; that is, the present value. As with all present-value calculations, the appropriate interest rate to use is crucial; a common practice with government contingent liabilities is to use a risk-free rate like the treasury rate. Under this present-value approach, when a guarantee is issued the present value of the expected cost of the guarantee could be recorded as an outlay or expense (in the operating account) in the current year and included in the position data, such as a balance sheet.

Exact valuation requires detailed market information, but such information is often unavailable. This is particularly true in situations of market failure or incomplete markets—a financial marketplace is said to be complete when a market exists with an equilibrium price for every asset in every possible state of the world. Other means are then required to value a contingency. One possibility is to use historical data on similar types of contingent operations. For example, if the market price of a loan is not observable, but historical data on a large number of loan guarantees and defaults associated with those guarantees are available, then the probability distribution of the default occurrences can be used to estimate the expected cost of a guarantee on the loan. This procedure is similar to that employed by the insurance industry to calculate insurance premiums. Rating information on like entities is often used to impute default value on loan guarantees as well.

Market value measures use market information to value a contingency. This methodology can be applied across a wide range of contingent liabilities, but it is particularly useful for valuing loan and other debt instrument guarantees, on which the following discussion focuses. This methodology assumes that comparable instruments with

and without guarantees are observable in the market and that the market has fully assessed the risk covered by the guarantee. Under this method, the value of a guarantee on a financial instrument is derived as the difference between the price of the instrument without a guarantee and the price inclusive of the guarantee. In the context of a loan guarantee, the nominal value of the guarantee would be the difference between the contractual interest rate ( $ip$ ) on the unguaranteed loan and the contractual interest rate ( $ig$ ) on the guaranteed loan times the nominal value of the loan ( $L$ ):  $(ip - ig)L$ . The market value of the guarantee would use market not contractual rates.

Yet another approach to valuing contingent liabilities applies option-pricing techniques from finance theory. With this method, a guarantee can be viewed as an option: a loan guarantee is essentially a put option written on the underlying assets backing the loan. In a loan guarantee, the guarantor sells a put option to a lender. The lender, who is the purchaser of the put option, has the right to “put” (sell) the loan to the guarantor. For example, consider a guarantee on a loan with a nominal value of  $F$  and an underlying value of  $V$ . If  $V - F < 0$ , then the put option is exercised and the lender receives the exercise price of  $F$ . The value of the put option at exercise is  $F - V$ . When  $V > F$ , the option is not exercised. The value of the guarantee is equivalent to the value of the put option. If the value of the credit instrument on which a guarantee is issued is below the value at which it can be sold to the guarantor, then the guarantee will be called.

Although the option pricing approach is relatively sophisticated, it is being applied in the pricing of guarantees on infrastructure financing and interest and principal payment guarantees. But standard option pricing has its limitations as well. This is because the standard option-pricing model assumes an exogenous stochastic process for underlying asset prices. However, it can be argued that the very presence of a guarantee (especially a government guarantee) can affect asset prices.

issues, where the debtor is unlikely to be able to meet its debt obligations in the medium term.

**4.29** A failure by a debtor to honor its debt obligations (for example, default) does not constitute debt reorganization because it does not involve an arrangement between the creditor and the debtor. Similarly, a creditor can reduce the value of its debt claims on the debtor in its own accounts through debt write-offs—unilateral actions that arise, for example, when the creditor regards a claim as unrecoverable, perhaps because of bankruptcy of the debtor and, as a result, no longer carries the claim on its balance sheet. Again, this is not considered debt reorganization.

**4.30** The four main types of debt reorganization are:

- **Debt forgiveness**, which is a reduction in the amount of, or the extinguishing of, a debt obligation by the creditor via a contractual arrangement with the debtor.
- **Debt rescheduling or refinancing** (or debt exchange), which is a change in the terms and conditions of the amount owed, which may result in a reduction in debt burden in present value terms.
- **Debt conversion and debt prepayment (or debt buybacks for cash)**, where the creditor exchanges the debt claim for something of economic value,

other than another debt claim, on the same debtor. Examples of debt conversion are debt-for-equity swaps, debt-for-real-estate swaps, debt-for-development swaps, and debt-for-nature swaps.<sup>11</sup>

- **Debt assumption and debt payments on behalf of others** when a third party is also involved.

**4.31** A debt reorganization package may involve more than one of the types mentioned above; for example, most debt reorganization packages involving debt forgiveness also result in a rescheduling of the part of the debt that is not forgiven or cancelled.

**4.32** The statistical treatment of the various types of debt reorganization is summarized in Table 4.1. If debt reorganization for a public sector unit or subsector is significant, consideration should be given to disseminate additional information, as outlined in the *External Debt Guide*, Table 8.1.

## I. Debt forgiveness

### a. Definition

**4.33** *Debt forgiveness (or debt cancellation) is defined as the voluntary cancellation of all or part of a debt obligation within a contractual arrangement between a creditor and a debtor.*<sup>12</sup> With debt forgiveness, there is a mutual agreement between the parties involved and an intention to convey a benefit. With debt write-off, there is no such agreement or intention—it is a unilateral recognition by the creditor that the amount is unlikely to be collected (see paragraphs 4.75–4.78).<sup>13</sup> Debt forgiven may include all or part of the principal outstanding, inclusive of any accrued interest arrears (interest that fell due for payment in the past) and any other interest costs that have accrued. Debt forgiveness does not arise from the cancellation of future interest payments that have not yet fallen due and have not yet accrued.

<sup>11</sup>Some agreements described as debt swaps are equivalent to debt forgiveness from the creditor and the debtor viewpoint. At the same time, there is a commitment from the debtor country to undertake development, environment, and similar expenditure. These transactions should be considered under debt forgiveness, because no value is provided to the creditor.

<sup>12</sup>This includes forgiveness of some, or all, of the principal amount of a credit-linked note arising from an event affecting the entity on which the embedded credit derivative was written. It also includes forgiveness of principal that arises when a type of event contractually specified in the debt contract occurs, such as forgiveness in the event of a type of catastrophe.

<sup>13</sup>Debt forgiveness is unlikely to arise between commercial entities such as public corporations.

### b. Statistical treatment of debt forgiveness

**4.34** Debt forgiveness is always recorded as a capital grant or transfer<sup>14</sup> to the debtor, which extinguishes the financial claim and the corresponding debt liability. A public sector unit may be involved in debt forgiveness as a creditor or a debtor.

**4.35** Box 4.2 illustrates the statistical treatment of debt forgiveness from the creditor and debtor viewpoints, respectively. Debt forgiveness results in:

- no change in gross debt and an increase in net debt of the creditor equal to the value of the debt forgiven; and
- a decrease in gross and net debt of the debtor.

**4.36** Market prices are the basis for valuing debt forgiveness, except for loans, where nominal value is used.

## 2. Debt rescheduling and refinancing

**4.37** Debt rescheduling and refinancing involve a change in an existing debt contract and replacement by a new debt contract, generally with extended debt-service payments.<sup>15</sup> Debt rescheduling involves rearrangements on the same type of instrument, with the same principal value and the same creditor as with the old debt. Debt refinancing entails a different debt instrument, generally at different value, and possibly with a different creditor.<sup>16</sup> For example, a creditor may choose to apply the terms of a Paris Club agreement either through a debt rescheduling option (changing the terms and conditions of its existing claims on the

<sup>14</sup>In *GFSM*, a capital transfer between two government units is called a **capital grant receivable or payable**, and is recorded under Revenue: Grants, and Expense: Grants, respectively. A capital transfer between a government unit and a nongovernment unit (including a public corporation) is called a capital transfer, and is recorded under Revenue: Voluntary transfers other than grants, and Expense: Miscellaneous other expense, respectively.

<sup>15</sup>If the original terms of a debt (typically a loan or debt security, but also other debt instruments) are changed by renegotiation by the parties, this is treated as a repayment of the original debt and the creation of a new debt liability. In contrast, if the original terms of the contract provide that the maturity or interest rate terms, or both, change as a result of an event such as a default or decline in credit rating, then this involves a reclassification. (In practice, this distinction has an effect on net values in cases where the original and new terms have a different principal, different instrument classification, or different maturity classification; otherwise, the entries cancel out.)

<sup>16</sup>From the debtor perspective, debt refinancing may involve borrowing from a third party to repay a creditor. The definition of debt refinancing in the *Guide* is a narrower concept reflecting transactions between the debtor and same creditor only.

**Table 4.1. A Summary of Statistical Treatment of Various Types of Debt Reorganization**

		Revenue	Expense	Effect on operating balance and net worth	Effect on net lending (+) / net borrowing (-) and net financial worth	Financial assets (flows and stock positions)	Liabilities (flows and stock positions)
<b>1. Debt forgiveness and debt cancellation</b> (para.4.33–4.36, Box 4.2)	<b>Debtor</b>	Capital grant or capital transfer		Positive	Positive		Debt liabilities decreases
	<b>Creditor</b>		Capital grant or capital transfer	Negative	Negative	Financial claims decreases	
<b>2. Debt rescheduling</b> (para. 4.37–4.40, Box 4.3)	<b>Debtor</b>			No effect <sup>1</sup>	No effect <sup>1</sup>		Existing debt liability decreases; New debt liability increases
	<b>Creditor</b>					Existing financial claim decreases; New financial claim increases	
<b>2. Debt refinancing</b> (para.4.41–4.47, Box 4.4)	<b>Debtor</b>			Possible effect because of revaluation arising if difference between value of old and new instrument(s)	Possible effect because of revaluation arising if difference between value of old and new instrument(s)		Existing debt liability decreases; New debt liability increases
	<b>Creditor</b>					Existing financial claim decrease; New financial claim(s) increases	
<b>3. Debt conversion</b> (para.4.48–4.51, Box 4.5)	<b>Debtor</b>			Positive, if at a discount; otherwise no change	Positive, if at a discount; otherwise no change		Debt liability decreases; Nondebt liability increases
	<b>Creditor</b>			Negative, if at a discount; otherwise no change.	Negative, if at a discount; otherwise no change.	Financial claim corresponding to debt decreases; Nondebt financial claim increases	
<b>3. Debt prepayment</b> (para.4.53–4.55, Box 4.6)	<b>Debtor</b>					Currency and deposits decrease	Debt liability decreases
	<b>Creditor</b>			No effect <sup>2</sup>	No effect <sup>2</sup>	Financial claim corresponding to debt decreases; Currency and deposits increase	
<b>4. Debt assumption with an effective financial claim on original debtor</b> (para. 4.56–4.57, Box 4.7, example 1)	<b>Debt assumer (new debtor)</b>		Capital transfer/ grant if a difference between liability incurred and financial asset acquired	No effect, if no capital transfer/ grant component; otherwise negative	No effect, if no capital transfer/ grant component; otherwise negative	Loans increase	Debt liability increases
	<b>Original debtor</b>	Capital transfer/ grant if difference between original debt liability and debt liability to debt assumer		No effect, if no capital transfer/ grant component; otherwise positive	No effect, if no capital transfer/ grant component; otherwise positive		Original debt liability decreases; Liability to debt assumer increases
	<b>Creditor</b>			No effect	No effect	No change	

<sup>1</sup>May also involve debt forgiveness and other adjustments, such as revaluations, that affect these balances.

<sup>2</sup>May involve debt forgiveness that affects these balances.

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Table 4.1. A Summary of Statistical Treatment of Various Types of Debt Reorganization (*continued*)

		Revenue	Expense	Effect on operating balance and net worth	Effect on net lending (+) / net borrowing (-) and net financial worth	Financial assets (flows and stock positions)	Liabilities (flows and stock positions)
4. Debt assumption with no effective financial claim on original debtor (para. 4.56–4.57, Box 4.7, example 2)	Debt assumer (new debtor)		Capital transfer/grant	Negative	Negative		Debt liability increases
	Original debtor	Capital transfer/grant		Positive	Positive		Debt liability decreases
	Creditor			No effect	No effect	No change	
4. Debt assumption with no effective financial claim on original debtor, which is a public corporation and a going concern (para. 4.56–4.57, Box 4.7, example 3)	Debt assumer (new debtor)			No effect	No effect	Equity and investment fund shares increase	Debt liability increases
	Original debtor			No effect	No effect		Original debt liability decreases; Nondebt liability equity and investment fund shares increases
	Creditor			No effect	No effect	No change	
4. Debt payments on behalf of others with an effective financial claim (para. 4.58–4.61, Box 4.8)	Paying unit			No effect	No effect	Currency and deposits decrease; Loans increase	
	Original debtor			No effect	No effect		Original debt liability decreases; Liability to paying unit increases
4. Debt payments on behalf of others with no effective financial claim—depends on nature of paying unit and original debtor (para. 4.58–4.61, Box 4.8)	Paying unit		Capital grant expense or capital transfer expense	Negative	Negative	Currency and deposits decrease	
	Original debtor	Capital grant revenue or capital transfer revenue (other revenue)		Positive	Positive	Currency and deposits increase	

debtor) or through refinancing (making a new loan to the debtor that is used to repay the existing debt).

#### a. Debt rescheduling

##### i. Definition

**4.38** *Debt rescheduling is a bilateral arrangement between the debtor and the creditor that constitutes a formal postponement of debt-service payments and the application of new and generally extended maturities.*

The new terms normally include one or more of the following elements: extending repayment periods, reductions in the contracted interest rate, adding or extending grace periods for the payment of interest and principal, fixing the exchange rate at favorable levels for foreign currency debt, and rescheduling the payment of arrears, if any. In the specific case of zero-coupon securities, a reduction in the principal amount to be paid at redemption to an amount that still exceeds the principal amount outstanding at the time the arrangement becomes effective.

**Box 4.2. Statistical Treatment of Debt Forgiveness**

The following example illustrates the statistical treatment of debt forgiveness of 100 for a public sector unit as a creditor and debtor, respectively.

	Public sector unit as creditor				Public sector unit as debtor			
	Opening balance sheet	Transactions	Other economic flows	Closing balance sheet	Opening balance sheet	Transactions	Other economic flows	Closing balance sheet
Revenue						100		
Capital transfer/grant						100		
Expense		100						
Capital transfer/grant		100						
Net worth / Net operating balance	100	-100		0	-100	100		0
Nonfinancial assets								
Net financial worth / Net lending (+) / net borrowing (-)	100	-100		0	-100	100		
Financial assets	100	-100		0				
Liabilities					100	-100		0
Gross debt	0	0		0	100	-100		0
Net debt	-100	100		0	100	-100		0

tive, could be classified as either an effective change in the contractual rate of interest or a reduction in principal with the contractual rate unchanged. Such a reduction in the principal payment to be made at maturity should be recorded as debt forgiveness, or debt rescheduling if the bilateral agreement explicitly acknowledges a change in the contractual rate of interest. Paris Club creditors provide debt relief to debtor countries in the form of rescheduling, which is debt relief by postponement or, in the case of concessional rescheduling, reduction in debt-service obligations during a defined period (flow treatment) or as of a set date (stock treatment).

*ii. Statistical treatment of debt rescheduling*

**4.39** With debt rescheduling, the applicable existing debt is recorded as being repaid and a new debt instrument (or instruments) created with new terms and conditions. This treatment does not apply, however, to interest arrears that are rescheduled when the conditions in the existing debt contract remain unchanged. In such a case, the existing debt contract is not considered as rescheduled, only the interest arrears. A new debt instrument is recorded for the rescheduled interest arrears. Box 4.3 illustrates the statistical treatment of debt rescheduling from the creditor and debtor viewpoints, respectively. Gross and net debt of the debtor and creditor do not change.

**4.40** The debt rescheduling transaction is recorded at the time agreed to by both parties (the contractually agreed time), and at the value of the new debt (which, under a debt rescheduling, is the same value as that of the old debt). If no date is set, the time at which the creditor records the change of terms is decisive. If the rescheduling of obligations due beyond the current period is linked to the fulfillment of certain conditions, when the obligations fall due (such as multiyear Paris Club rescheduling), entries are recorded only in the period when the specified conditions are met.

**b. Debt refinancing***i. Definition*

**4.41** *Debt refinancing involves the replacement of an existing debt instrument or instruments, including any arrears, with a new debt instrument or instruments.* It can involve the exchange of the same type of debt instrument (such as a loan for a loan) or different types of debt instruments (such as a loan for a bond). For example, a public sector unit may convert various export credit debts into a single loan, or exchange existing bonds for new bonds through exchange offers given by its creditor (rather than a change in terms and conditions).

**Box 4.3. Statistical Treatment of Debt Rescheduling**

The following example illustrates the statistical treatment of debt rescheduling of 100 for a public sector unit as a creditor and debtor, respectively.

	Public sector unit as creditor				Public sector unit as debtor			
	Opening balance sheet	Transactions	Other economic flows	Closing balance sheet	Opening balance sheet	Transactions	Other economic flows	Closing balance sheet
Revenue								
Expense								
Net worth / Net operating balance	100	0		100	-100	0		-100
Nonfinancial assets								
Net financial worth / Net lending (+) / net borrowing (-)	100	0		100	-100	0		-100
Financial assets	100	0		100				
Existing debt instrument	100	-100		0				
New debt instrument	0	100		100				
Liabilities					100	0		100
Existing debt instrument					100	-100		0
New debt instrument					0	100		100
Gross debt	0	0		0	100	0		100
Net debt	-100	0		-100	100	0		100

*ii. Statistical treatment of debt refinancing*

**4.42** The treatment of debt refinancing transactions is similar to debt rescheduling. The debt being refinanced is extinguished and replaced with a new financial instrument, or instruments. However, unlike debt rescheduling, the old debt is extinguished at the value of the new debt instrument, except for nonmarketable debt (for example, a loan) owed to official creditors.

**4.43** Box 4.4 illustrates the statistical treatment of debt refinancing from the creditor and debtor viewpoints, respectively. If the refinancing involves a direct debt exchange, such as a loan-for-bond swap, the debtor records a reduction in liabilities under the appropriate debt instrument and an increase in liabilities to show the creation of the new obligation. The transaction is recorded at the value of the new debt (reflecting the current market value of the debt), and the difference between the value of the old and new debt instruments recorded as a revaluation. For the debtor, gross and net debt decreases as a result of the revaluation. For the creditor, net debt increases as a result of the revaluation of the financial claim on the debtor and gross debt is unaffected. However, if the debt is owed to official creditors and is nonmarketable, the old debt is extin-

guished at its original value with the difference in value with the new instrument recorded as debt forgiveness (see paragraphs 4.33–4.36).

**4.44** Where there is no established market price for the new bond, an appropriate proxy is used. For example, if the bond is similar to other bonds being traded, the market price of a traded bond would be an appropriate proxy for the value of the new bond. If the debt being swapped was recently acquired by the creditor, the acquisition price would be an appropriate proxy. Alternatively, if the interest rate on the new bond is below the prevailing interest rate, the discounted value of the bond, using the prevailing interest rate, could serve as a proxy. If such information is not available, the face value of the bond being issued may be used as a proxy. See also debt-for-equity conversion below.

**4.45** The balance sheet reflects the changes in the stock positions as a result of the transactions extinguishing the old debt instrument and creating the new debt instrument along with any valuation changes. For example, a loan-for-bond exchange will generally result in a reduction in the liabilities of the debtor (reduction in the claim of the creditor on the debtor) because the loan is recorded at nominal value, while the bond is recorded at market value, which may be lower.

**Box 4.4. Statistical Treatment of Debt Refinancing**

The following example illustrates the statistical treatment of debt refinancing for a public sector unit as a creditor and debtor, respectively. An existing debt instrument of 100 is exchanged for a new debt instrument of 95. The difference of –5 is recorded as a revaluation.

	Public sector unit as creditor				Public sector unit as debtor			
	Opening balance sheet	Trans-actions	Other economic flows	Closing balance sheet	Opening balance sheet	Trans-actions	Other economic flows	Closing balance sheet
Revenue								
Expense								
Net worth / Net operating balance	100	0	–5	95	–100	0	5	–95
Nonfinancial assets								
Net financial worth / Net lending (+) / net borrowing (–)	100	0	–5	95	–100	0	5	–95
Financial assets	100	0	–5	95				
Existing debt instrument	100	–95	–5	0				
New debt instrument	0	95		95				
Liabilities					100	0	–5	95
Existing debt instrument					100	–95	–5	0
New debt instrument					0	95		95
Gross debt	0	0	0	0	100	0	–5	95
Net debt	–100	0	5	–95	100	0	–5	95

**4.46** If the proceeds from the new debt are used to partially pay off existing debt, any remaining debt is recorded as the extinguishment of the old debt and creation of a new debt, unless it is paid off through a separate transaction.

**4.47** If the terms of any new borrowings are concessional, the creditor could be seen as providing a transfer to the debtor. Debt concessionality is discussed later in paragraphs 4.81–4.86.

### 3. Debt conversion and debt prepayment

#### a. Debt conversion

##### i. Definition

**4.48** *Debt conversion (swap) is an exchange of debt—typically at a discount—for a nondebt claim (such as equity), or for counterpart funds that can be used to finance a particular project or policy.* In essence, public sector debt is extinguished and a nondebt liability created in a debt conversion.

**4.49** A common example of debt conversion is debt-for-equity swaps. Determining the value of the equity may be difficult if the equity is not actively traded on a market, as is likely to be the case if

the unit that issued the equity is a controlled public corporation. If the equity is not traded, its valuation should be based on the total value of the corporation's assets minus the total value of its liabilities, where liabilities exclude equity and investment fund shares.

**4.50** Further examples of debt conversions are other types of debt swaps (such as external debt obligations for exports or “debt-for-exports”) or debt obligations for counterpart assets that are provided by the debtor to the creditor for the creditor to use for a specified purpose, such as wildlife protection, health, education, and environmental conservation (debt-for-sustainable-development).

**4.51** Direct and indirect debt conversions should be distinguished. A direct swap leads directly to the acquisition of a nondebt claim on the debtor (such as a debt-for-equity swap). An indirect debt conversion involves another claim on the economy, such as a deposit, that is subsequently used to purchase equity.

##### ii. Statistical treatment of debt conversion

**4.52** For the debtor, a debt-for-equity swap results in a reduced debt liability and an increase in the non-

### Box 4.5. Statistical Treatment of Debt Conversion

The following example illustrates the statistical treatment of a debt-for-equity swap for a public corporation as a creditor and debtor, respectively. An existing debt instrument of 100 is exchanged for an equity in the public corporation of 100.

	Public sector unit as creditor				Public sector unit as debtor			
	Opening balance sheet	Transactions	Other economic flows	Closing balance sheet	Opening balance sheet	Transactions	Other economic flows	Closing balance sheet
Revenue								
Expense								
Net worth / Net operating balance	100	0		100	-100	0		-100
Nonfinancial assets								
Net financial worth / Net lending (+) / net borrowing (-)	100	0		100	-100	0		-100
Financial assets	100	0		100				
Existing debt instrument	100	-100		0				
Equity and investment fund shares	0	100		100				
Liabilities					100	0		100
Existing debt instrument					100	-100		0
Equity and investment fund shares					0	100		100
Gross debt	0	0		0	100	-100		0
Net debt	-100	100		0	100	-100		0

debt liability “equity and investment fund shares.”<sup>17</sup> For the creditor, the swap results in a reduced financial asset corresponding to the debt instrument, and an increase in the financial asset “equity and investment fund shares.” Box 4.5 illustrates the statistical treatment of debt conversion, using a debt-for-equity swap as an example, from the creditor and debtor viewpoints, respectively. Changes in the net worth and net financial worth of the creditor and debtor, respectively, will depend on whether the swap was at a discount or not.

#### b. Debt prepayment

##### i. Definition

**4.53** *Debt prepayment consists of a repurchase, or early payment, of debt at conditions that are agreed between the debtor and the creditor.* The debt is extinguished in return for a cash payment agreed between the debtor and the creditor. Debt prepayment could be driven by the debtor’s need to reduce the cost of its debt portfolio by taking advantage of favorable

economic performance or market conditions to repurchase debt.

##### ii. Statistical treatment of debt prepayment

**4.54** For the debtor, debt prepayment results in a reduced debt liability and a decrease in the financial asset “currency and deposits.” For the creditor, debt prepayment results in a reduced financial claim corresponding to the debt liability and an increase in the financial asset “currency and deposits.” Net debt of the debtor and creditor remain unchanged if there is no debt forgiveness involved. The transaction is recorded at the value of the debt prepaid.

**4.55** If the debt is owed to official creditors and/or is nonmarketable (for example, a loan), an element of debt forgiveness could be involved (i.e., if the prepayment occurs within an agreement between the parties with an intention to convey a benefit). As explained in Debt forgiveness above, a capital transfer or capital grant from the creditor to the debtor is recorded for debt forgiveness, which reduces the value of the outstanding liability/claim. Box 4.6 illustrates the statistical treatment of debt prepayment, with an element of debt forgiveness, from the creditor and debtor viewpoints, respectively.

<sup>17</sup>Often, a third party is involved in a debt-for-equity swap, buying the claims from the creditor and receiving equity in a public corporation (the debtor).



**Box 4.6. Statistical Treatment of Debt Prepayment**

The following example illustrates the statistical treatment of a debt prepayment for a public sector unit as a creditor and debtor, respectively. A loan of 100 is prepaid with a cash amount of 85, implying that 15 is debt forgiveness (i.e., capital transfer/grant receivable/payable).

	Public sector unit as creditor				Public sector unit as debtor			
	Opening balance sheet	Trans-actions	Other economic flows	Closing balance sheet	Opening balance sheet	Trans-actions	Other economic flows	Closing balance sheet
Revenue						15		
Capital transfer/grant						15		
Expense		15						
Capital transfer/grant		15						
Net worth / Net operating balance	300	-15		285	100	15		115
Nonfinancial assets								
Net financial worth / Net lending (+) / net borrowing (-)	300	-15		285	100	15		115
Financial assets	300	-15		285	200	-85		115
Currency and deposits	200	+85		285	200	-85		115
Existing debt instrument	100	-15-85		0				
Liabilities					100	-100		0
Existing debt instrument					100	-15-85		0
Gross debt	0	0		0	100	-100		0
Net debt	-300	15		-285	-100	-15		-115

As a result of the debt forgiveness element, the debtor's gross and net debt decrease. For the creditor, the debt forgiveness element results in a decrease in financial assets and usually an increase in its net debt.

#### 4. Debt assumption and debt payments on behalf of others

##### a. Debt assumption

###### i. Definition

**4.56** *Debt assumption is a trilateral agreement between a creditor, a former debtor, and a new debtor (typically a government unit) under which the new debtor assumes the former debtor's outstanding liability to the creditor, and is liable for repayment of debt.* Calling a guarantee is an example of debt assumption. If the original debtor defaults on its debt obligations, the creditor may invoke the contract conditions permitting the guarantee from the guarantor to be called. The guarantor unit must either repay the debt or assume responsibility for the debt as the primary debtor (i.e., the liability of the original debtor is extinguished). A public sector unit can be the debtor

that is defaulting or the guarantor. A government can also, through agreement, offer to provide funds to pay off the debt obligation of another government unit owed to a third party.<sup>18</sup>

###### ii. Statistical treatment of debt assumption

**4.57** The statistical treatment of debt assumption depends on (i) whether the new debtor acquires an effective financial claim on the original debtor, or not, and (ii) if there is no effective financial claim, the relationship between the new debtor and the original debtor and whether the original debtor is bankrupt or no longer a going concern.<sup>19</sup> This implies three possibilities:

- **The debt assumer (new debtor) acquires an effective financial claim on the original debtor.**

<sup>18</sup>For example, a central government unit offering to provide funds to pay off the debt of a local government unit owed to a bank.

<sup>19</sup>An "effective financial claim" is understood to be a claim that is supported by a contract between the new debtor and the original debtor, or (especially in the case of governments) an agreement, with a reasonable expectation to be honored, that the original debtor will reimburse the new debtor. A "going concern" is understood to be an entity in business, or operating, for the foreseeable future.

The debt assumer records an increase in debt liabilities to the original creditor, and an increase in financial assets, such as in the form of loans, with the original debtor as the counterparty. The original debtor records a decrease in the original debt liability to the creditor and an increase in liabilities, such as in the form of a loan, from the debt assumer. The value of the claim on the original debtor is the present value of the amount expected to be received by the assumer. If this amount is equal to the liability assumed, no further entries are required. Gross debt of the debt assumer increases. Gross debt of the original debtor remains the same if the liability to the debt assumer is equal to the debt assumed. In this case, there is no change in the net debt of the debt assumer or the original debtor.

If the amount expected to be recovered is less than the liability assumed, the debt assumer records an expense in the form of capital transfer/grant to the original debtor for the difference between the liability incurred and the financial asset acquired in the form of loans. For the debt assumer, gross debt increases with the amount of debt assumed. Net debt of the assumer increases by an amount equal to the capital transfer or capital grant. Both gross and net debt of the original debtor decrease by an amount equal to the capital transfer or capital grant. See Box 4.7, example 1, for an illustration from both the new debtor and original (defaulting) debtor's viewpoints.

- **The debt assumer (new debtor) does not acquire an effective financial claim on the original debtor.** This may be the case when the original debtor is bankrupt or no longer a going concern, or when the debt assumer seeks to convey a benefit to the original debtor. The debt assumer records an expense in the form of a capital transfer/grant to the original debtor, and an increase in debt liabilities to the original creditor. The original debtor records revenue in the form of a capital transfer/grant, which extinguishes the debt liability on its balance sheet.

For the debt assumer, gross and net debt increase. For the original debtor, gross and net debt decrease. See Box 4.7, example 2, for an illustration from both the new debtor and original (defaulting) debtor's viewpoints. The exception to this case is when the original debtor is a public corporation that continues to be a going concern, which is discussed next.

- **The debt assumer (new debtor) does not acquire an effective financial claim and the original**

**debtor is a public corporation that continues to be a going concern.** The debt assumption amounts to an increase in the equity owned by the debt assumer in the public corporation (original debtor). The debt assumer records an increase in debt liabilities to the original creditor, and an increase in financial assets in the form of equity and investment fund shares. The public corporation records a decrease in the debt liability to the original creditor, and an increase in nondebt liabilities in the form of equity and investment funds shares. See Box 4.7, example 3, for an illustration from both the new debtor and original (defaulting) debtor's viewpoints.

The debt assumer's gross and net debt increase. The public corporation's (original debtor) gross and net debt decrease.

## **b. Debt payments on behalf of others**

### *i. Definition*

**4.58** *Rather than assuming a debt, a public sector unit may decide to repay that debt or make a specific payment on behalf of another institutional unit (original debtor) without a guarantee being called or the debt being taken over.* In this case, the debt stays recorded solely on the balance sheet of the other institutional unit, the only legal debtor. As the existing debt remains with unaltered terms, this is not considered debt reorganization. Such a situation may occur where a debtor is experiencing temporary liquidity difficulties rather than permanent solvency problems.<sup>20</sup>

### *ii. Statistical treatment of debt payments on behalf of others*

**4.59** The treatment of debt payments on behalf of others depends on whether the public sector unit paying the debt acquires an effective financial claim on the debtor or not. See Box 4.8 for an illustration of both instances.

**4.60** **If the paying unit obtains an effective financial claim on the original debtor,** the paying unit records an increase in financial assets (such as loans) and a decrease in currency and deposits. The recipient (debtor) records a decrease in the original debt liability and an increase in another liability—which may be debt or nondebt—to the

<sup>20</sup>Debt payments on behalf of others are different from the case where debt may be considered to be assumed at inception when a guarantee has a very high likelihood to be called, as described in paragraph 4.16.

**Box 4.7. Statistical Treatment of Debt Assumption**

*Example 1:* The following example illustrates the statistical treatment of a debt assumption for a general government unit and a public corporation, where the general government unit assumes a public corporation loan of 100 and acquires an effective financial claim against the defaulting public corporation. It is expected that the public corporation will repay 90 of the claim.

	General government (new debtor)				Public corporation (original debtor)			
	Opening balance sheet	Trans-actions	Other economic flows	Closing balance sheet	Opening balance sheet	Trans-actions	Other economic flows	Closing balance sheet
Revenue						10		
Capital transfer						10		
Expense		10						
Capital transfer		10						
<i>Net worth / Net operating balance</i>		-10		-10	-100	10		-90
Nonfinancial assets								
<i>Net financial worth / Net lending (+) / net borrowing (-)</i>		-10		-10	-100	10		-90
Financial assets		90		90				
Loan to public corporation		90		90				
Liabilities		100		100	100	-10		90
Loan from original creditor		100		100	100	-100		0
Loan from government					0	90		90
Gross debt	0	100		100	100	-10		90
Net debt	0	10		10	100	-10		90

Note:

- The general government's net worth and net financial worth decrease because of the difference between the liability incurred (100) and the financial claim acquired (90). For the same reason, the reverse occurs in the accounts of the original debtor.

*Example 2:* The following example illustrates the statistical treatment of a debt assumption for a general government unit and a private corporation, where the general government unit assumes a private corporation loan of 100 without an effective financial claim.

	General government (new debtor)				Private corporation (original debtor)			
	Opening balance sheet	Trans-actions	Other economic flows	Closing balance sheet	Opening balance sheet	Trans-actions	Other economic flows	Closing balance sheet
Revenue						100		
Capital transfer						100		
Expense		100						
Capital transfer		100						
<i>Net worth / Net operating balance</i>		-100		-100	-100	100		0
Nonfinancial assets								
<i>Net financial worth / Net lending (+) / net borrowing (-)</i>		-100		-100	-100	100		0
Financial assets								
Liabilities		100		100	100	-100		0
Loan from original creditor		100		100	100	-100		0
Gross debt	0	100		100	100	-100		0
Net debt	0	100		100	100	-100		0

Note:

- The general government's net worth and net financial worth decrease because the government has assumed the liability of 100. The private corporation's net worth and net financial worth increase because it no longer has the liability to the original creditor on its balance sheet.

*Continues on the next page*

**Box 4.7. Statistical Treatment of Debt Assumption (continued)**

*Example 3:* The following example illustrates the statistical treatment of a debt assumption for a general government unit and a public corporation, where the general government unit assumes a public corporation loan of 100. The general government does not acquire an effective financial claim on the defaulting public corporation and the public corporation continues to be a going concern.

	General government (new debtor)				Public corporation (original debtor)			
	Opening balance sheet	Trans-actions	Other economic flows	Closing balance sheet	Opening balance sheet	Trans-actions	Other economic flows	Closing balance sheet
Revenue								
Capital transfer								
Expense								
Capital transfer								
Net worth / Net operating balance		0		0	-100	0		-100
Nonfinancial assets								
Net financial worth / Net lending (+) / net borrowing (-)		0		0	-100	0		-100
Financial assets		100		100				
Equity in public corporation		100		100				
Liabilities		100		100	100	0		100
Loan from original creditor		100		100	100	-100		0
Equity liability to government						100		100
Gross debt	0	100		100	100	-100		0
Net debt	0	100		100	100	-100		0

Note:

- The general government and public corporation's net worth and net financial worth do not change. For general government, the incurrence of a debt liability is replaced by a financial asset, and for the public corporation, the debt liability is replaced by a nondebt liability in the form of the general government's equity ownership in the public corporation.

paying unit. If the claim of the paying unit on the debtor is in the form of a debt instrument, gross and net debt of the paying unit and recipient (debtor) do not change. However, if the claim of the paying unit on the debtor is in the form of a nondebt instrument:

- For the paying unit, gross debt remains unchanged, but net debt increases (due to the reduction in its financial assets in the form of currency and deposits); and
- For the recipient (debtor), gross and net debt decrease (due to the reduction in the debt liability).

**4.61 If the paying unit does not obtain an effective financial claim on the original debtor,** the paying unit records an expense in the form of a capital transfer—classified according to the nature of the recipient—and a decrease in financial assets in the form of currency and deposits. The expense reduces the paying unit's net worth and net finan-

cial worth. The decrease in financial assets in the form of currency and deposits results in an increase in the paying unit's net debt (its gross debt is unaffected). The receiving unit (debtor) records a revenue in the form of a capital transfer—classified according to the nature of the paying unit—and a decrease in the original debt liability. The revenue increases the debtor's net worth and net financial worth. The decrease in the original debt liability reduces the debtor's gross and net debt.

## 5. Some international debt relief initiatives

**4.62** Often, there is international cooperation to provide debt relief to countries. Examples of such debt relief initiatives are the:

- the Paris Club debt rescheduling arrangements;
- a debt-service moratorium extended by creditors;

**Box 4.8. Statistical Treatment of Debt Payments on Behalf of Others**

*Example 1:* The following example illustrates the statistical treatment of a debt payment of 20 by public sector unit A on behalf of public sector unit B, where public sector unit A obtains an effective financial claim on public sector unit B.

	Public sector unit A				Public sector unit B			
	Opening balance sheet	Trans-actions	Other economic flows	Closing balance sheet	Opening balance sheet	Trans-actions	Other economic flows	Closing balance sheet
Revenue								
Capital transfer/grant								
Expense								
Capital transfer/grant								
Net worth / Net operating balance	20	0		20	-300	0		-300
Nonfinancial assets								
Net financial worth / Net lending (+) / net borrowing (-)	20	0		20	-300	0		-300
Financial assets	20	0		20				
Currency and deposits	20	-20		0				
Loan to unit B		20		20				
Liabilities					300	0		300
Original debt instrument					300	-20		280
Loan from unit A					0	20		20
Gross debt	0	0		0	300	0		300
Net debt	-20	0		-20	300	0		300

*Example 2:* The following example illustrates the statistical treatment of a debt principal payment of 20 by public sector unit A on behalf of public sector unit B, where public sector unit A does not obtain an effective financial claim on public sector unit B.

	Public sector unit A				Public sector unit B			
	Opening balance sheet	Trans-actions	Other economic flows	Closing balance sheet	Opening balance sheet	Trans-actions	Other economic flows	Closing balance sheet
Revenue						20		
Capital transfer/grant						20		
Expense		20						
Capital transfer/grant		20						
Net worth / Net operating balance	20	-20		0	-300	20		-280
Nonfinancial assets								
Net financial worth / Net lending (+) / net borrowing (-)	20	-20		0	-300	20		-280
Financial assets	20	-20		0				
Currency and deposits	20	-20		0				
Liabilities					300	-20		280
Original debt instrument					300	-20		280
Gross debt	0	0		0	300	-20		280
Net debt	-20	20		0	300	-20		280



- the Heavily Indebted Poor Countries (HIPC) Initiative; and
- the Multilateral Debt Relief Initiative (MDRI).

#### **a. The Paris Club debt rescheduling arrangements**

**4.63** The Paris Club,<sup>21</sup> which is an informal group of creditor countries, can “treat” debt owed (contracted or guaranteed) by the government and/or the public sector of the debtor country to creditor countries or their appropriate institutions: such debts comprise officially guaranteed export credits and bilateral loans. Two types of “treatment” may be implemented by the Paris Club:

- flow treatments of usually both scheduled amortization and interest payments falling due in a given period; and
- stock treatments of the entire outstanding principal at a given date, for countries with a good track record with the Paris Club if this would ensure an end to the rescheduling process.

**4.64** These flow and stock treatments are recorded according to their nature and may include any of the debt reorganization measures described earlier in this chapter. However, a specific case is the recording of debt service falling due between the Paris Club Agreed Minute and the specified implementation date. Under Paris Club debt rescheduling arrangements, creditor countries, as a group, usually agree in the nonbinding “Agreed Minute” signed by them that payment terms and conditions of applicable debt falling due before the specified effective (implementation) date of the Paris Club bilateral agreement might not be paid on schedule. However, interest continues to accrue based on the existing loan terms, but payments are not made, up until the point when there is a formal bilateral agreement.

**4.65** When such payments fall due, they are considered technical arrears.<sup>22</sup> Given that there is a mutually signed understanding between the debtor and the creditor that the terms and conditions in the mother agreement are temporarily suspended, technical arrears are treated in the debtor economy as rescheduled short-term debt and classified under other accounts payable, until the effective date of the bilateral agreement when

the new terms apply.<sup>23</sup> When the new terms apply, there may be a need to reclassify technical arrears to the appropriate instruments under liabilities.

#### **b. Debt-service moratorium extended by creditors**

**4.66** *A debt-service moratorium involves an individual creditor permitting the debtor a formal suspension of debt-service payments falling due within a given period.* A debt-service moratorium is often granted in the event of natural disasters (such as the moratorium granted to tsunami-affected countries in 2005) and usually involves a formal exchange of letters but not necessarily a formal bilateral agreement.

**4.67** As the intention of the action is usually to provide the debtor with short-term debt relief, a debt-service moratorium extended by creditors should be classified as debt rescheduling, provided there is a formal process that demonstrates agreement on behalf of both the debtor and creditor, such as the exchange of letters, to delay payment. The nonpayment of debt service according to the original contract does not create arrears in such instances. If one debt-service payment was renegotiated, the debtor records reduction in the appropriate debt liability (representing the repayment of the obligations as if they were paid when due) with an increase recorded under the same debt instrument (representing the creation of a new debt). However, if the moratorium results in a renegotiation of all subsequent debt-service payments, the original debt is recorded as being repaid in full and a new debt is created (see footnote 15).

#### **c. The Heavily Indebted Poor Countries (HIPC) Initiative**

**4.68** The HIPC Initiative was launched in 1996 by the IMF and World Bank, soliciting the cooperation of the international financial community (including multilateral organizations and governments) to reduce external debt burdens of the most heavily indebted poor countries. Debt relief under the HIPC Initiative is conditional and is provided in a two-step process, generally referred to as the “decision point” and the “completion point.”

<sup>21</sup>See Chapter 10 for more details on the Paris Club.

<sup>22</sup>*External Debt Statistics: Guide for Compilers and Users*, Chapter 3.

<sup>23</sup>This approach is applicable to other debt rescheduling arrangements with similar terms.

**4.69** To reach the “decision point,” debtor countries must fulfill four conditions.<sup>24</sup> Once a country has met or made sufficient progress in meeting these criteria, the Executive Boards of the IMF and World Bank formally decide on its eligibility for debt relief, and the international community commits to reducing debt to a level that is considered sustainable. HIPC provides parallel debt relief on the part of official bilateral or private creditors, and multilateral organizations. Once a country reaches its “decision point” it may immediately begin receiving interim relief on its debt service as it falls due. Once a debtor country has reached the “completion point,” it receives full and irrevocable reduction in debt committed at decision point.<sup>25</sup>

**4.70** In 1999, the HIPC initiative was enhanced as an outcome of a comprehensive review by the World Bank’s International Development Association (IDA) and the IMF, which included public consultations. The debt burden thresholds of the initiative were adjusted downward, which enabled a broader group of countries to qualify for larger volumes of debt relief. A number of creditors, including the main multilaterals, started to provide earlier assistance to qualifying countries in the form of interim relief at decision point and a “floating completion point” was introduced, providing incentives to speed up reforms and increase country ownership.

**4.71** The statistical treatment of debt relief under the HIPC Initiative depends on the specific type of relief provided, and may include debt forgiveness, debt rescheduling, and debt refinancing (see also paragraph 4.74).

#### **d. Multilateral Debt Relief Initiative (MDRI)**

**4.72** In 2005, the HIPC Initiative was supplemented by the Multilateral Debt Relief Initiative (MDRI) to help accelerate progress toward the United Nations

<sup>24</sup>The country must (i) be eligible to borrow from the World Bank’s International Development Agency (IDA), which provides interest-free loans and grants to the world’s poorest countries, and from the IMF’s Extended Credit Facility, which provides loans to low-income countries at subsidized rates; (ii) face an unsustainable debt burden that cannot be addressed through traditional debt relief mechanisms; (iii) have established a track record of reform and sound policies through IMF and World Bank supported programs; and (iv) have developed a Poverty Reduction Strategy Paper through a broad-based participatory process in the country.

<sup>25</sup>At this stage, a country must have: (i) established a track record of good performance under programs supported by loans from the IMF and the World Bank; (ii) implemented satisfactorily key reforms agreed at the decision point; and (iii) adopted and implemented its Poverty Reduction Strategy Paper for at least one year.

Millennium Development Goals (MDGs).<sup>26</sup> The MDRI allows for 100 percent relief on eligible debts by three multilateral institutions—the IMF, the World Bank’s IDA, and the African Development Fund (AfDF). Countries that have reached or will eventually reach the “completion point” under the joint IMF-World Bank enhanced HIPC Initiative are eligible for the MDRI. Member countries (including non-HIPCs) at or below the per capita income threshold of US\$380 are also eligible.

**4.73** The MDRI goes further than HIPC by providing full debt relief so as to immediately free up additional resources to help these countries reach the MDGs. Unlike the HIPC Initiative, the MDRI does not propose any parallel debt relief on the part of official bilateral or private creditors, or of multilateral institutions beyond the IMF, IDA, and the AfDF. However, in early 2007, the Inter-American Development Bank also decided to provide similar debt relief to the five HIPCs in the Western Hemisphere. Although debt relief under the enhanced HIPC Initiative was focused mainly on relief of debt flows, debt relief under the MDRI provides relief of the stock of debt.

**4.74** Although the MDRI is often referred to as debt cancellation by the IMF, it is in fact the MDRI Trusts providing a grant to a debtor country, and this grant is used to pay off eligible debts to the IMF. Therefore, recording the MDRI should reflect the grant component and changes in the interest and amortization schedules of the debtor. Because the liability is shown as resting with the central bank in some countries, whereas in other countries the liability is with the central government, the statistical treatment of the MDRI stock-of-debt-relief is as follows:

- **Relief from the IMF’s HIPC and MDRI Trusts:** Record revenue in the form of an external capital grant (credit) from the MDRI Trusts to institutional unit that has the external debt liability to the IMF (i.e., the central government or the central bank) and a reduction in the external debt liability (debit) of that unit to the IMF indicating the repayment of the debt.
- If the external liability to the IMF is resting with the **central bank**, the debt relief will affect general government statistics only when the proceeds from the external grant flow through to general government. General government may benefit from this through higher profit transfers,

<sup>26</sup>The United Nations Millennium Development Goals (MDGs) are focused on halving poverty by 2015.

a direct transfer from the central bank to a special government deposit account, or a reduction in central bank claims on government (i.e., if the proceeds from the IMF loan were originally on-lent to government).

If the central bank has on-lent the proceeds from the external loan to government, recording of the proceeds from grant component of the MDRI relief in the government accounts will differ for countries that compile their accounts on an accrual basis and for those that compile their accounts only on a cash basis. For countries using accrual accounting, the grant arising from MDRI debt relief via the central bank would be shown directly in general government statistics as a capital transfer receivable from the central bank, with a corresponding decrease in government's outstanding liabilities to the central bank.<sup>27</sup> However, for countries using cash accounting, no revenue or financing transactions are recorded in general government statistics. This is because there was no cash flow between government and the central bank or between the government and the MDRI Trusts as a result of the debt relief. The benefits to government from such debt relief are in the form of reduced interest payments and domestic debt repayments to the central bank, over time.<sup>28</sup> Actual transfers from the central bank to general government should, however, be recorded as such, with the corresponding reduction in government's debt liabilities to the central bank.

- If the external debt liability to the MDRI Trusts lies with the **central government**, the statistical treatment is similar to that of MDRI relief from IDA and AfDF, but with a different counterparty (i.e., the MDRI Trusts, not IDA or AfDF). In other words, general government records a capital grant receivable from the MDRI Trusts (credit) and a reduction in its external liability to the IMF (debit).
- **Relief from IDA and AfDF:** MDRI debt relief implies a direct debt forgiveness, which is described in paragraphs 4.33–4.36 of this chapter.

<sup>27</sup>Because the central bank has on-lent the proceeds from the IMF loan to the general government, the latter has a domestic debt liability to the central bank. See paragraph 4.158.

<sup>28</sup>Government's domestic liability to the central bank is lower as a result of the lower external debt liability of the central bank to the IMF.

## D. Other Issues Relating to Debt

### I. Debt write-offs and write-downs

#### a. Definition

**4.75** *Debt write-offs or write-downs refer to unilateral reductions by a creditor, of the amount owed to it.* This usually occurs when a creditor concludes that a debt obligation has no value or a reduced value because part or all of the debt is not going to be repaid (frequently the debtor is insolvent). For example, a public corporation that borrowed from the general government unit may be insolvent. As a result, the general government unit's claim loses some, or all, of its value and is written down or written off on the balance sheet of the government unit (creditor). In contrast, a unilateral write-off by a debtor, or debt repudiation, is not recognized in the macroeconomic statistical systems.

#### b. Statistical treatment of debt write-offs and write-downs

**4.76** Unlike debt forgiveness (see paragraphs 4.33–4.36), which is a mutual agreement and, therefore, a transaction, debt write-off is a unilateral action and, therefore, recorded as an “other economic flow” in the macroeconomic statistical systems.<sup>29</sup> Box 4.9 illustrates the statistical treatment of debt write-offs.

**4.77** The financial asset is removed from the balance sheet of the creditor through an “other economic flow” called “other changes in the volume of assets and liabilities.” As a result, net debt of the creditor increases (due to the decline in financial assets), and gross debt is unaffected.

**4.78** The corresponding liability should be removed from the balance sheet of the debtor, also through an “other change in the volume of assets and liabilities.” As a result, the debtor's gross and net debt decrease.

### 2. New money facilities

**4.79** In some debt reorganization arrangements that assist the debtor to overcome temporary financing difficulties, new money facilities are agreed with the creditor to repay maturing debt obligations. The two debt

<sup>29</sup>As explained in Appendix 2 of this *Guide*, macroeconomic accounting distinguishes between two types of flows that can change the value of a stock position in the balance sheet: transactions and other economic flows. Two types of other economic flows exist: holding gains or losses (revaluations) and other changes in the volume of assets and liabilities.

**Box 4.9. Statistical Treatment of Debt Write-offs**

The following example illustrates the statistical treatment of a debt write-off by a public sector unit as a creditor. A general government unit writes off a loan of 100 extended to a public corporation.

	General government unit as creditor				Public corporation as debtor			
	Opening balance sheet	Transactions	Other economic flows	Closing balance sheet	Opening balance sheet	Transactions	Other economic flows	Closing balance sheet
Revenue								
Capital transfer/grant								
Expense								
Capital transfer/grant								
Net worth / Net operating balance	100		-100	0	-100		100	0
Nonfinancial assets								
Net financial worth / Net lending (+) / net borrowing (-)	100		-100	0	-100		100	0
Financial assets	100		-100	0				
Loan to public corporation	100		-100	0				
Liabilities					100		-100	0
Loan from government					100		-100	0
Gross debt	0	0	0	0	100	0	-100	0
Net debt	-100	0	100	0	100	0	-100	0

Note:

- Although a debt write-off is a unilateral action, in macroeconomic statistics the write-off has to be recorded for the debtor also to maintain consistency.

instruments involved—the maturing debt obligation and the new money facility—are treated separately (see Box 4.10 for an illustration). If the terms of the new borrowings are concessional, the creditor is providing a transfer to the debtor. Debt concessionality is discussed in paragraphs 4.81–4.86.

### 3. Debt defeasance

**4.80** *With defeasance, a debtor unit removes liabilities from its balance sheet by pairing them with financial assets, the income and value of which are sufficient to ensure that all debt-service payments are met.* Defeasance may be carried out by placing the assets and liabilities in a separate account within the institutional unit concerned or by transferring them to another unit. In either case, the macroeconomic statistical systems do not recognize defeasance as affecting the outstanding debt of the debtor. Thus, no transactions with respect to defeasance are recorded in the *GFSM* system, as long as there has been no change in the legal obligations of the debtor. When the assets and liabilities are transferred to a separate account within the unit,

both assets and liabilities should be reported on a gross basis. If a separate unit is created to hold the assets and liabilities, that new unit should be treated as an ancillary unit and consolidated with the defeasing unit.

## 4. Debt concessionality

### a. Introduction

**4.81** There is no consistent definition or measure of debt concessionality in macroeconomic statistics. However, it is generally accepted that concessional loans occur when units lend to other units and the contractual interest rate is intentionally set below the market interest rate that would otherwise apply. The degree of concessionality can be enhanced with grace periods,<sup>30</sup> and frequencies of payments and maturity periods favorable to the debtor.

**4.82** Since the terms of a concessional loan are more favorable to the debtor than market conditions would

<sup>30</sup>The grace period is the period from the disbursement of the loan until the first payment due by the debtor.

**Box 4.10. Statistical Treatment of New Money Facilities**

The following example illustrates the statistical treatment of a new money facility by a public sector unit as a creditor and debtor, respectively. A public sector unit, as debtor, agrees with another public sector unit, the creditor, to use new money facilities of 100 to repay maturing debt obligations of 100 to the creditor.

	Public sector unit as creditor				Public sector unit as debtor			
	Opening balance sheet	Trans-actions	Other economic flows	Closing balance sheet	Opening balance sheet	Trans-actions	Other economic flows	Closing balance sheet
Revenue								
Capital transfer/grant								
Expense								
Capital transfer/grant								
Net worth / Net operating balance	350	0		350	-100	0		-100
Nonfinancial assets								
Net financial worth / Net lending (+) / net borrowing (-)	350	0		350	-100	0		-100
Financial assets	350	0		350	0	0		0
Currency and deposits	250	100-100		250	0	100-100		0
Original loan	100	-100		0				
New money facility (loan)	0	100		100				
Liabilities					100	0		100
Original loan					100	-100		0
New money facility (loan)					0	100		100
Gross debt	0	0		0	100	0		100
Net debt	-350	0		-350	100	0		100

otherwise permit, concessional loans effectively include a transfer from the creditor to the debtor. However, the means of incorporating the transfer impact within the SNA and other macroeconomic statistics have not been fully developed, although various alternatives have been advanced. Accordingly, until the appropriate treatment of concessional debt is agreed, information on concessional debt should be provided in supplementary tables.

**b. The case of Paris Club debt reorganization**

**4.83** In debt reorganization through the Paris Club, debt reduction in present value terms is calculated using a market-based discount rate, usually the OECD's Commercial Interest Reference Rate (CIRR).<sup>31</sup> The difference between the nominal

value of the applicable debt and its present value is the amount of capital transfer derived from the debt reorganization arrangements.

**4.84** Where such capital transfers are significant, countries are encouraged to provide these data as a memorandum item to the debt statistics. The recording should be made as a one-off transaction at the point of loan origination equal to the difference between the nominal value of the debt and its present value (using a relevant market discount rate such as the CIRR). This approach has the advantage of considering all the possible sources of transfers in debt concessionality—maturity period, grace period, frequency of payments, interest rate, and other applicable costs—and is consistent with nominal valuation of loans. In addition, this approach is consistent with the economic equivalence between a concessional loan of say, 100 units with an embedded grant element of 35 percent, and a commercial loan of 100 units combined with a direct grant of 35 units. The transfer value is calculated at the time it occurs, that is, at the inception of the debt, as the difference between its nominal value and its present value

<sup>31</sup>These rates are set on the fifteenth day of each month for fifteen currencies on the basis of secondary market yields on government bonds with residual maturity of five years and, in addition, three and seven years for the Canadian dollar, the Danish krone, the Japanese yen, the Swedish krona, the Swiss franc, the UK pound, the U.S. dollar, and the euro.



using the payment stream and the relevant market interest rate as the discount factor.

**4.85** If the loan is retired before maturity and replaced by a new loan, adjustment of the previously recorded transfers in the memorandum item is required. This means that the value of any transfers not yet received on the original loan being replaced would need to be subtracted from the calculated value of the original transfer value; otherwise, the amount of concessionality recorded over time would be overstated.

**4.86** This adjustment can be done by recalculating the transfer at inception using the actual payment schedule outturn, including the retirement of the entire remaining loan at the time of rescheduling.<sup>32</sup> The recalculated value should replace the originally calculated value in the historical memorandum item data, so that the historical data reflect the actual transfers received, without mixing any new concessional transfer with the value not received on the original loan, when there may have been a different set of market-related interest rates. In practice, this calculation may require considerable information and take substantial compilation effort.

## 5. Debt arising from financial leases

### a. Definition

**4.87** *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.* In other words, the lessee becomes the economic owner of the asset. Under a financial lease, the lessor records a loan to the lessee with which the lessee acquires the asset. Thereafter, the leased asset is shown on the balance sheet of the lessee and not of the lessor; the corresponding loan is shown as an asset of the lessor and a liability of the lessee.

**4.88** The following situations would normally lead to a lease being classified as a financial lease:

- The lease contract transfers legal ownership of the asset to the lessee at the end of the lease term; or
- The lease contract gives the lessee the option to acquire legal ownership of the asset at the end of the lease term at a price that is sufficiently low that the exercise of the option is reasonably certain; or

- The lease term is for the major part of the economic life of the asset; or
- At inception, the present value of the lease payments amounts to substantially all of the value of the asset; or
- If the lessee can cancel the lease, the losses of the lessor are borne by the lessee; or
- Gains or losses in the residual value of the residual asset accrue to the lessee; or
- The lessee has the ability to continue the lease for a secondary period for a payment substantially lower than market value.

**4.89** These examples may not be conclusive that substantially all of the risks have been conveyed. For example, if the asset is conveyed to the lessee at the end of the lease at its fair value at that time, the lessor holds substantial risks of ownership. The lease is then considered to be an operating lease (see below). Financial leases are also called finance leases or capital leases, highlighting that the motivation is to finance acquisition of the asset. Accounting practices generally recognize financial leases in the same manner as this definition. In addition to financial leases recognized in business accounts, a treatment akin to financial leases is adopted for some public-private partnerships<sup>33</sup> (see 2008 SNA, Chapter 22, The General Government and Public Sectors).

**4.90** Financial leases are distinguished from other types of leases identified in macroeconomic statistics because, substantially, all the risks and rewards of ownership are transferred from the legal owner of the good (the lessor) to the user of the good (the lessee). Other types of leases are:

- **Operating leases.** An operating lease is one in which the legal owner of a produced asset is also the economic owner and assumes the operating risks and rewards from ownership of the asset. One indicator of an operating lease is that the legal owner has the responsibility to provide maintenance and repair of the asset, as needed. Under an operating lease, the asset remains on the balance sheet of the lessor. Payments made under an operating lease are called “rentals” and are recorded as payments for a service (expense).

<sup>32</sup>This retirement value would include any amount that is forgiven because such forgiveness is recorded as a capital transfer in the period given.

<sup>33</sup>For example, a build, own, operate, transfer scheme could be established to assign the risks and rewards of ownership to the government, and the private partner would be treated as the provider of a financial lease.

### Box 4.II. Statistical Treatment of Financial Leases

The following example illustrates the statistical treatment of a financial lease from the viewpoint of the lessor and lessee, respectively. A publicly controlled bank leases an aircraft to a publicly controlled aviation company. When the public corporation takes economic ownership of the aircraft, it is shown as an asset in the balance sheet of the aviation company. The acquisition of the aircraft is financed by a loan, which is recorded as a liability. The market value of the aircraft is 1,000. The lease begins on January 1, and an annual payment of 140 is made on December 31 each year, for ten years, at which time the lessee purchases the aircraft for a price equal to its residual value of 32.8. The contract is based on an interest rate of 7 percent per annum. For simplicity, it is assumed that there are no flows (such as consumption of fixed capital and revaluation of the asset to reflect its market price) affecting the value of the aircraft (i.e., nonfinancial assets) over the ten year period.

The unconsolidated entries for year 1 are:

	Public sector unit as lessor (bank)				Public sector unit as lessee (aviation company)			
	Opening balance sheet	Trans- actions	Other economic flows	Closing balance sheet	Opening balance sheet	Trans- actions	Other economic flows	Closing balance sheet
Revenue		70						
Interest receivable		70						
Expense						70		
Interest payable						70		
Net worth / Net operating balance	1,000	70		1,070	2,500	-70		2,430
Nonfinancial assets	1,000	-1,000	0	0	0	1,000		1,000
Net financial worth / Net lending (+) / net borrowing (-)	0	1,070		1,070	2,500	-1,070		1,430
Financial assets		1,070		1,070	2,500	-140		2,360
Currency and deposits		140		140	2,500	-140		2,360
Loan to aviation company		1,000+ 70-140		930				
Liabilities						930		930
Loan from bank						1,000+ 70-140		930
Gross debt	0	0		0	0	930		930
Net debt	0	-1,070		-1,070	-2,500	1,070		-1,430

Note:

- Interest is calculated as  $0.07 \times 1,000 = 70$ .

The unconsolidated entries for year 2 are:

	Public sector unit as lessor (bank)				Public sector unit as lessee (aviation company)			
	Opening balance sheet	Trans- actions	Other economic flows	Closing balance sheet	Opening balance sheet	Trans- actions	Other economic flows	Closing balance sheet
Revenue		65.1						
Interest receivable		65.1						
Expense						65.1		
Interest payable						65.1		
Net worth / Net operating balance	1,070	65.1		1,135.1	2,430	-65.1		2,364.9
Nonfinancial assets	0			0	1,000			1,000
Net financial worth / Net lending (+) / net borrowing (-)	1,070	65.1		1,135.1	1,430	-65.1		1,364.9
Financial assets	1,070	65.1		1,135.1	2,360	-140		2,220
Currency and deposits	140	140		280	2,360	-140		2,220
Loan to aviation company	930	65.1-140		855.1				
Liabilities					930	-74.9		855.1
Loan from bank					930	65.1-140		855.1
Gross debt	0	0		0	930	-74.9		855.1
Net debt	-1,070	-65.1		-1,135.1	-1,430	65.1		-1,364.9

Note:

- Interest is calculated as  $0.07 \times 930 = 65.1$ .

*Continues on the next page*

**Box 4.11. Statistical Treatment of Financial Leases (continued)**

The unconsolidated entries for year 10 are:

	Public sector unit as lessor (bank)				Public sector unit as lessee (aviation company)			
	Opening balance sheet	Trans- actions	Other economic flows	Closing balance sheet	Opening balance sheet	Trans- actions	Other economic flows	Closing balance sheet
Revenue		11.3						
Interest receivable		11.3						
Expense						11.3		
Interest payable						11.3		
<i>Net worth / Net operating balance</i>	1,421.5	11.3		1,432.8	2,078.5	-11.3		2,067.2
Nonfinancial assets	0			0	1,000			1,000
<i>Net financial worth / Net lending (+) / net borrowing (-)</i>	1,421.5	11.3		1,432.8	1,078.5	-11.3		1,067.2
Financial assets	1,421.5	11.3		1,432.8	1,240	-172.8		1,067.2
Currency and deposits	1,260	140+32.8		1,432.8	1,240	-140-32.8		1,067.2
Loan to aviation company	161.5	11.3-140 -32.8		0				
Liabilities					161.5	-161.5		0
Loan from bank					161.5	11.3-140 -32.8		0
Gross debt	0	0		0	161.5	-161.5		0
Net debt	-1,421.5	-11.3		-1,432.8	-1,078.5	11.5		-1,067.2

Note:

- Interest is calculated as  $0.07 \times 161.5 = 11.3$ .
- The residual value of the aircraft the after the last lease payment is  $32.8 = 161.5 + 11.3 - 140$ .

- **Resource leases.** A resource lease is an agreement whereby the legal owner of a natural resource with an indefinite life makes it available to a lessee in return for a regular payment. This payment is recorded as rent. The resource continues to be recorded on the balance sheet of the lessor even though it is used by the lessee. Other arrangements involving natural resources may amount to an outright sale of a natural resource to the lessee (such as electromagnetic spectrum licenses granted indefinitely).
- **Contracts, leases, and licenses.** A transferable lease, other than a financial lease, that meets the definition of an economic asset is shown in the balance sheet as a nonproduced nonfinancial asset, and does not form part of debt. Examples are permissions to use natural resources that are not recorded as outright ownership of these resources, permissions to undertake certain activities (including some government permits), and

entitlements to purchase a good or service on an exclusive basis.<sup>34</sup>

#### **b. Statistical treatment of financial leases**

**4.91** The statistical treatment of financial leases is designed to capture the economic reality of such arrangements, by treating assets under a financial lease as if they were purchased and owned by the user.<sup>35</sup>

**4.92** It is common for a financial lease to be for the whole of the life of the asset, but this need not necessarily be so.

- When the lease is for the whole of the life of the asset, the value of the imputed loan will correspond

<sup>34</sup>For more details, see paragraphs 13.11–13.16 in *BPM6* and Chapter 17, part 5, of *2008 SNA*.

<sup>35</sup>The legal arrangements usually do not reflect the economic nature of the event.

to the present value of the payments to be made under the lease agreement. This value takes into account the market price of the asset at acquisition, accrued interest, a fee charged by the lessor (if applicable), and any repayments of the loan.

- When the lease is for less than the whole life of the asset, the value of the imputed loan should be estimated in the same way as above. At the end of the lease, the asset will appear on the balance sheet of the lessee and its value (after revaluation) will be equal to the value of the loan owed to the lessor at that time.

**4.93** The loan is repaid through payments during the contract (which consist of interest and principal elements<sup>36</sup>) and any residual payment at the end of the contract (or alternatively, by the return of the good to the lessor). The statistical treatment of financial leases from the lessor and lessee viewpoints, respectively, is illustrated in Box 4.11.

**4.94** For the lessee, gross and net debt increase at the inception of the lease, and subsequent lease payments reduce gross and net debt. The interest component of the subsequent lease payments results in a decrease in net worth and net financial worth. The principal payments do not affect the lessee's net worth and net financial worth, as they involve transactions in financial assets and liabilities.

**4.95** For the lessor, gross debt is not affected by a financial lease. The net debt of the lessor decreases because of an increase in its financial assets due to the lease payments.

## 6. Debt of special purpose entities

### a. Definition

**4.96** Special purpose entities (SPEs) are described in Chapter 2, paragraphs 2.64–2.67. For public sector debt purposes, the appropriate institutional sectorization of the SPE must be determined. If the SPE is part of the public sector, its debt should be part of the debt of public sector or relevant subsector.

**4.97** As noted in Chapter 2, governments may establish public corporations that sell goods or services exclusively to government, without tendering for a government contract in competition with the private sector. Such a public corporation is called an artificial

subsidiary and should be classified as part of the general government sector (its parent unit). Often, such government artificial subsidiaries are set up as SPEs. These units, which are legally corporations, should be classified as part of the general government sector and their debt liabilities are thus part of general government debt.

**4.98** A government may conduct fiscal activities through an entity that is resident abroad. For example, a government may fund its outlays by issuing securities abroad through an SPE. This SPE is not part of the general government in either home or host economy. Such entities are not treated in the same way as embassies and other territorial enclaves because they operate under the laws of the host economy. Governments may be direct investors in these units/entities. However, special imputations of transactions and stock positions between the government and the SPE abroad must be used to ensure that any fiscal operations undertaken through nonresident entities are reflected in the transactions and stock positions of the home government concerned.<sup>37</sup> As a result, the government will show an actual, or imputed, debt to its SPE arising from any debts the SPE incurs on behalf of the government.

### b. Statistical treatment of nonresident special purpose entities of general government

**4.99** When an entity resident in one economy borrows on behalf of the government of another economy, and the borrowing is for fiscal purposes, the statistical treatment in the accounts of that government is:

- At the time of borrowing: a transaction creating a debt liability of the government to the borrowing entity is imputed equal to the amount borrowed. The counterpart entry is an increase in the government's equity in the borrowing entity.
- At the time funds or assets acquired with the funds (as applicable) are transferred to the government: a transaction for the flow of funds or assets recorded, matched by a reduction of the government's equity in the borrowing entity by the same amount.
- At the time expenses are incurred, or assets are transferred by the borrowing entity to a third party (i.e., are not transferred to the government), where

<sup>36</sup>If a financial intermediary is involved, these elements also include FISIM (financial intermediation services indirectly measured)—a concept used in national accounts statistics.

<sup>37</sup>The reason for having a special approach for government entities is that, unlike in the private sector, the nonresident entity undertakes functions at the behest of general government for public policy, not commercial purposes. Without this approach, a misleading picture of government expenditure and debt could arise.

### Box 4.12. Statistical Treatment of Debt and Flows Arising from Nonresident SPEs of General Government

The following two examples illustrate the statistical treatment of debt and flows related to a nonresident SPE created by the general government.

*Example 1:* The government of country A establishes an SPE in country B to borrow and use the proceeds to acquire fixed assets in the form of machinery and equipment on behalf of government. The SPE borrows 100 in country B to finance the acquisition of these nonfinancial assets. The machinery and equipment are used by the SPE in country B.

	General Government A				Nonresident SPE of general government			
	Opening balance sheet	Trans-actions	Other economic flows	Closing balance sheet	Opening balance sheet	Trans-actions	Other economic flows	Closing balance sheet
Revenue								
Expense								
Net worth / Net operating balance		0		0		0		0
Nonfinancial assets						(c) 100		100
Net financial worth / Net lending (+) / net borrowing (-)		0		0		-100		-100
Financial assets		100		100		100		100
Currency and deposits						(a) 100		
Currency and deposits						(c) -100		
Loan from SPE to government (imputed)						(b) 100		100
Equity in SPE (imputed)		(b) 100		100				
Liabilities		100		100		200		200
Loan from SPE to government (imputed)		(b) 100		100				
Borrowing by SPE						(a) 100		100
Equity liability to government (imputed)						(b) 100		100
Gross debt	0	100		100	0	100		100
Net debt	0	100		100	0	0		0

Note:

- In the accounts of government A, the SPE borrowing “(a)” is imputed by recording a loan from the SPE equal to the amount of the borrowing, 100 or “(b),” and a corresponding increase in the equity of government in the SPE of 100 “(b).” The SPE imputes an equity liability to government or “(b),” with a corresponding financial claim on government (loan to government) “(b).”
- The machinery and equipment of 100 acquired are reported as nonfinancial assets of the SPE “(c),” with a corresponding entry showing the decrease in currency and deposits “(c).”
- Government’s gross debt increases by 100, as reflected by the loan from the SPE to government. The SPE’s debt increases by 100 as well (the SPE’s equity liability to government of 100 is not debt).
- Note that the result of the imputations is that value of government’s liabilities and net worth in the closing balance sheet are the same as if the government had undertaken the activities itself.

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applicable: a current or capital transfer between the government and the entity is imputed, with the matching entry of a reduction in the value of the government’s equity.

**4.100** These entries are made symmetrically for both the government and the borrowing entity, as illustrated in the two examples in Box 4.12. These entries do not affect the transactions or stock positions between the borrowing entity and its creditors or other

third parties, which are recorded as they occur, with no imputations.

## 7. Debt arising from securitization

### a. Definition

**4.101** *Securitization occurs when a unit, named the originator, conveys the ownership rights over financial or nonfinancial assets, or the right to*

### Box 4.12. Statistical Treatment of Debt and Flows Arising from Nonresident SPEs of General Government (continued)

*Example 2:* The government of country A establishes an SPE in country B, with an equity investment of 20, which will borrow and incur expenses on behalf of country A's government. The SPE borrows 100 in country B to finance government A's expense on services of 111 in country C.

	General Government A				Nonresident SPE of general government			
	Opening balance sheet	Trans- actions	Other economic flows	Closing balance sheet	Opening balance sheet	Trans- actions	Other economic flows	Closing balance sheet
Revenue						111		
Capital transfer (imputed)						(e) 111		
Expense		111				111		
Expense on services		(e) 111				(d) 111		
Capital transfer (imputed)								
Net worth / Net operating balance		-111		-111		0		0
Nonfinancial assets								
Net financial worth / Net lending (+) / net borrowing (-)		-111		-111		0		0
Financial assets		-11		-11		109		109
Currency and deposits		(a) -20		-20		(a) 20		
Currency and deposits						(b) 100		9
Currency and deposits						(d) -111		
Loan from SPE to government (imputed)						(c) 100		100
Equity in SPE (imputed)		(c) 100						
Equity in SPE		(a) 20		9				
Equity in SPE (imputed)		(e) -111						
Liabilities		100		100		109		109
Loan from SPE to government (imputed)		(c) 100		100				
Borrowing by SPE						(b) 100		100
Equity liability to government (imputed)						(c) 100		
Equity liability to government						(a) 20		9
Equity liability to government						(e) -111		
Gross debt	0	100		100	0	100		100
Net debt	0	120		120	0	-9		-9

Note:

- In the accounts of government A, the contribution of 20 to the SPE is recorded as an actual transaction that increases its equity in the SPE "(a)," with a corresponding decrease in the financial asset currency and deposits "(a)." The SPE records an increase in its equity liability to government "(a)," with a corresponding increase in the financial asset currency and deposits "(a)."
- In the accounts of government A, the SPE borrowing "(b)" is imputed by recording a loan from the SPE equal to the amount of the borrowing, 100 or "(c)," and a corresponding increase in the equity of government in the SPE of 100 "(c)." The SPE imputes an equity liability to government "(c)," with a corresponding financial claim (loan to government) "(c)."
- In the accounts of the SPE, the expense of 111 on services in country C is recorded as an expense "(d)," with a corresponding decrease in the financial asset currency and deposits "(d)."
- In the accounts of government A, an expense of 111 "(e)" is imputed as a capital transfer to the SPE, with a corresponding imputed decrease in the equity holdings in the SPE "(e)." In the accounts of the SPE, a revenue of 111 "(e)" is imputed as a capital transfer from government, with a corresponding imputed decrease in the equity liability to government "(e)."
- The overall result is a reduction in the net worth of government of 111 (reflecting the expense), and no change in the net worth of the SPE.
- Government A's gross debt increases by 100, as reflected by the loan from the SPE to government. The SPE's gross debt increases by 100 as well (the SPE's equity liability to government of 9 (= 100 + 20 - 111) is not debt).
- Note that the result of the imputations is that value of government's liabilities and net worth in the closing balance sheet are the same as if the government had undertaken the activities itself.



receive specific future flows, to another unit, named the securitization unit. In return, the securitization unit pays an amount to the originator from its own source of financing. The securitization unit obtains its own financing by issuing debt securities using the assets or rights to future flows transferred by the originator as collateral.<sup>38</sup> When asset-backed securities are issued by a public sector unit, they form part of public sector debt.

**4.102** Securitization results in debt securities for which coupon or principal payments (or both) are backed by specific financial or nonfinancial assets or future revenue streams. A variety of assets or future revenue streams may be used for securitization, including residential and commercial mortgage loans, consumer loans, government loans, and credit derivatives. A general government unit may issue debt securities backed by specific, earmarked revenue. In macroeconomic statistical systems, the ability to raise taxes or other government revenue is not recognized as a government asset that could be used for securitization.<sup>39</sup> Nevertheless, the earmarking of future revenue, such as receipts from toll roads, to service debt securities issued by a general government (or public sector) unit may resemble securitization (see paragraphs 4.106 and 4.108).

**4.103** Securitization schemes vary within and across debt securities markets. At the broadest level, a distinction is made between whether a securitization unit is involved or not. In securitization schemes where debt securities are issued by a securitization unit, the issuing institutional unit is a financial intermediary in the financial corporations sector. The securitization unit is often an SPE. However, as described in Chapter 2, paragraph 2.65, resident SPEs functioning in only a passive manner relative to general government and carrying out fiscal activities are not treated as separate institutional units in the macroeconomic statistical systems. Such SPEs are treated as part of general government regardless of their legal status. Therefore:

- If a securitization unit is involved, four types of schemes may be distinguished from a macroeconomic statistics perspective:

<sup>38</sup>For a detailed discussion of securitization, see *Handbook on Securities Statistics*, Bank for International Settlements, European Central Bank, and International Monetary Fund, May 2009, as well as 2008 SNA, paragraphs 22.131–22.133. This *Handbook* also considers that securitization can occur when there is no securitization unit or transfer of assets.

<sup>39</sup>For example, future tax revenue has not yet accrued, presumably because the event that leads to the tax liability has not yet taken place, and consequently no asset exists on the government balance sheet.

- **True-sale securitization**,<sup>40</sup> which are schemes involving a true transfer (sale) of assets, from a macroeconomic statistics perspective<sup>41</sup>, from the original asset owner's balance sheet to that of the securitization unit;
  - **No true-sale securitization**,<sup>42</sup> which are schemes that do not involve a true transfer of assets—from a macroeconomic statistics perspective—from the original asset owner's balance sheet to that of the securitization unit (see footnote 41);
  - **No asset securitization**,<sup>43</sup> which are schemes involving securitization of future revenue streams that are not recognized as assets in macroeconomic statistics; and
  - **Synthetic securitization with a securitization unit**,<sup>44</sup> which are schemes involving the transfer of credit risk only (but not the transfer of assets), through a securitization unit.
- If no securitization unit is involved, two types of securitization are possible:
- **On-balance sheet securitization**,<sup>45</sup> which are schemes in which the original asset owner issues new debt securities and there is no transfer of assets; and
  - **Synthetic securitization without a securitization unit**,<sup>46</sup> which are schemes involving the transfer of credit risk only (but not the transfer of assets), through the direct issue of debt securities by the original asset owner.

## **b. Statistical treatment of debt and flows arising from securitization**

### **4.104 True-sale securitization involves debt securities issued by a securitization unit where the under-**

<sup>40</sup>“Type 2” schemes in the *Handbook on Securities Statistics* and the “first case” of securitization in the 2008 SNA.

<sup>41</sup>To be treated as a sale, the asset must already appear on the balance sheet of the public sector unit (for example, central government) and there must be a full change of ownership to the securitization unit, as evidenced by the transfer of the risks and rewards linked to the asset. The following must be considered: (i) The purchase price should equal the current market price, otherwise it is not a sale; and (ii) If the originator (for example, central government) guarantees repayment of any debt related to the asset acquired by the securitization unit, it is unlikely that all of the risks associated with the asset have been transferred and there is, therefore, no sale.

<sup>42</sup>Derived from the “first case” of securitization in the 2008 SNA.

<sup>43</sup>The “second case” of securitization in the 2008 SNA.

<sup>44</sup>“Type 3” schemes in the *Handbook on Securities Statistics*.

<sup>45</sup>“Type 1” schemes in the *Handbook on Securities Statistics*.

<sup>46</sup>“Type 3” schemes in the *Handbook on Securities Statistics*.

*lying assets have been transferred from the original asset owner's (i.e., the originator's) balance sheet to that of the securitization unit.* The securitization unit uses the proceeds from selling the debt securities to investors to finance the acquisition of the assets. The revenue stream from the pool of assets (typically, interest payments and principal repayments on the loans) is used to make the coupon payments and principal repayments on the debt securities issued. In case of a true-sale securitization by a public sector unit, the original asset owner's gross debt remains unchanged. The gross debt of the securitization unit increases as a result of the securities issued. If this unit is a **public** financial corporation, its debt is part of public sector debt. A resident securitization "unit" that is an SPE but does not meet the requirements of an institutional unit, is treated as part of general government regardless of its legal status. Such an SPE's debt is part of general government's debt (see also paragraph 4.103).

**4.105** If **no true-sale** had taken place from a macro-economic statistics perspective (see footnote 41), the amount received from the securitization unit by the public sector unit as the originator is treated as borrowing, usually in the form of a loan.<sup>47</sup> The debt securities issued by the securitization unit are part of public sector debt, if the securitization unit is part of the public sector.

**4.106** **No asset securitization** involves securitization of future revenue streams. As mentioned in paragraph 4.102, the ability to raise taxes or other government revenue is not recognized as a government asset that could be used for true-sale securitization. In most cases, it is not the rights to the future revenue that are used as collateral, but the obligation of the public sector unit to use a sufficient amount of the future income to repay the borrowing in full. If more income is earned than is needed to repay the borrowing, the excess is retained by the public sector unit. So, if rights to future government revenue are transferred to a securitization unit, the amount received from the securitization unit by the public sector unit, arising from the proceeds of the debt securities issue, is treated as borrowing, usually in the form of a loan.<sup>48</sup> The debt securities issued by the securitization unit are part of public sector debt, if the securitization unit is part of the public sector.

<sup>47</sup>When both the originator and the securitization unit are in the public sector, this loan will be eliminated from public sector debt through consolidation. See Chapter 8 of this *Guide*.

<sup>48</sup>When both the originator and the securitization unit are in the public sector, this loan will be eliminated from public sector debt through consolidation. See Chapter 8 of this *Guide*.

**4.107** *Synthetic securitization involves transfer of the credit risk related to a pool of assets without transfer of the assets themselves, either through a securitization unit or through the direct issuing of debt securities by the original asset owner.*

- **Synthetic securitization with a securitization unit.** The owner of the asset buys (protection buyer) from the securitization unit (protection seller) protection against possible default losses on the pool of assets using credit default swaps (CDS).<sup>49</sup> The protection seller issues a debt instrument backed by these pooled assets. The proceeds from the issue of debt securities by the securitization unit are invested in low-risk, low-return financial assets (such as deposits), and the income accrued on this investment, together with the premium from the CDS, finances coupon payments on the debt securities made by the securitization unit to the investors. On maturity, the holders of the debt are reimbursed, provided there has been no default on the pool of assets. If there is a default, the protection buyer is compensated by the protection seller for the default losses related to the pool of assets, while the holders of the debt securities (investors) suffer losses for the same value.

The debt securities issued by the securitization unit are part of public sector debt, if the securitization unit is part of the public sector.

- **Synthetic securitization without a securitization unit.** The owner of the asset issues credit-linked notes (CLN). CLN are debt securities that are backed by reference assets (such as loans and bonds), with an embedded CDS allowing credit risk to be transferred from the issuer to investors. Credit protection for the pool assets is sold by the investors to the protection buyer (or issuer or the CLN) by buying the CLN. Repayment of principal and interest on the notes is conditional on performance of the pool of assets. If no default occurs during the life of the note, the full redemption value of the note is paid to investors at maturity. If a default occurs, investors receive the redemption value of the note minus the value of the default losses.

With synthetic securitization without a securitization unit, the debt securities (CLN) issued by a public sector unit are part of that unit's debt.

<sup>49</sup>A credit default swap is a financial derivative whose primary purpose is to trade credit default risk.

**4.108** *On-balance sheet securitization involves debt securities backed by a future revenue stream generated by the assets. The assets remain on the balance sheet of the debt securities issuer (the original asset owner), typically as a separate portfolio. There is no securitization unit involved.* The issue of debt securities provides the original asset owner with funds and the debt securities form part of the original asset owner's debt.

## 8. Debt arising from bailout operations

### a. Definition

**4.109** A bailout refers to a rescue from financial distress. It is often used when a government unit provides either short-term financial assistance to a corporation to help it survive a period of financial difficulty, or a more permanent injection of financial resources to help recapitalize the corporation. A bailout may in effect constitute nationalization if the government acquires control of the corporation it is bailing out. Bailouts of financial institutions are a case in point. They are likely to involve highly publicized, one-time transactions often involving large amounts and are, therefore, easy to identify.

**4.110** Analysts generally refer to “capital injections” made by government into corporations when some significant financial support is provided to capitalize or recapitalize the corporation in financial distress. The 2008 SNA uses “capital injections” to mean a direct intervention that is recorded in macroeconomic statistics either as a capital transfer, a loan, an acquisition of equity, or a combination of these. Direct intervention of general government may take various forms, for example:

- Providing recapitalization through an injection of financial resources (“capital injection”) or the assumption of a failed corporation's liabilities;
- Providing loans and/or acquiring equity in the corporations in distress (i.e., “requited recapitalization”), on favorable terms, or not; or
- Purchasing assets from the corporation to be assisted at prices greater than their true market value.

**4.111** Indirectly, general government may intervene by extending the range of guarantees it is prepared to offer.

**4.112** A government might create an SPE, or other type of public body, to finance or to manage the sales of assets or liabilities of the corporation to be assisted. The sectorization rules, as outlined in Chapter 2, should be

applied to determine whether this SPE or public body should be treated as part of the general government or public financial corporations sector.

### b. Statistical treatment of bailout operations

**4.113** The assistance provided by government (or other public sector unit) to the unit suffering financial distress is usually recorded as a loan, a capital transfer, or an equity injection. The statistical treatment of several bailout operations are illustrated in Box 4.13.

**4.114** When a public sector unit (investor unit), such as a government unit, intervenes **by means of a capital injection that is legally in the form of a loan** to the corporation in distress, the statistical treatment depends on whether the investor unit obtains an effective financial claim on the corporation, as described in paragraphs 4.57 and 4.60.

**4.115** When a public sector unit, such as government, intervenes by means of **capital injection other than a loan** to the corporation in distress, the statistical treatment depends on whether a realistic return can be expected on this investment or not. (A realistic rate of return on funds is indicated by the intention to earn a rate of return that is sufficient to generate dividends or holding gains at a later date, and that is a claim on the residual value of the corporation.)

- If the public sector unit (investor unit) can expect a realistic return on the investment, the investor unit records an increase in financial assets in the form of equity and investment fund shares, and a decrease in financial assets (such as in the form of currency and deposits) or an increase in liabilities, depending how the acquisition of equity is financed. If the acquisition of equity is financed through the issue of new debt, the investor unit's gross and net debt increase, and its net worth and net financial worth remain unchanged (because all the transactions only result in changes in the composition of financial assets and liabilities). If the acquisition of equity is financed with a reduction in financial assets (such as in the form of currency and deposits), the investor's gross debt remains unchanged, but net debt increases due to the decline in financial assets.

The corporation in distress records an increase in financial assets (such as in the form of currency and deposits), and an increase in nondebt liabilities in the form of equity and investment fund shares. Gross

### Box 4.13. Statistical Treatment of Debt and Flows Arising from Bailout Operations

The following examples illustrate the statistical treatment of debt and flows arising from bailout operations.

*Example 1:* Government provides a nonrepayable, unrequited capital injection of 100 to a public financial corporation. Government finances this by issuing bonds of 75 and using 25 cash. For simplicity, it is assumed that there are no other economic flows, such as revaluations.

	General government				Public financial corporation			
	Opening balance sheet	Trans-actions	Other economic flows	Closing balance sheet	Opening balance sheet	Trans-actions	Other economic flows	Closing balance sheet
Revenue						100		
Capital transfer						100		
Expense		100						
Capital transfer		100						
<i>Net worth / Net operating balance</i>	250	-100		150		100		100
Nonfinancial assets								
<i>Net financial worth / Net lending (+) / net borrowing (-)</i>	250	-100		150		100		100
Financial assets	250	-25		225				
Currency and deposits	250	-25		225		100		100
Liabilities		75		75				
Debt securities		75		75				
Gross debt	0	75		75	0	0		0
Net debt	-250	100		-150	0	-100		-100

Note:

- Government debt increases by 75 (assuming no other economic flows, such as revaluations). Government's net worth declines by 100, as reflected by an increase in liabilities of 75 and a decrease in currency and deposits of 25.

*Example 2:* On January 1, government provides a "capital injection" of 100 to a public financial corporation. The public financial corporation agrees to repay this loan over five years, at an interest rate of 4 percent (the market interest rate is 10 percent). The public financial corporation will repay 20 plus interest on December 31, every year. Government finances the loan to the public corporation by issuing bonds of 75 and using 25 cash. For simplicity, it is assumed that there are no other economic flows, such as revaluations.

	General government				Public financial corporation			
	Opening balance sheet	Trans-actions	Other economic flows	Closing balance sheet	Opening balance sheet	Trans-actions	Other economic flows	Closing balance sheet
Revenue		10				6		
Interest income		10				6		
Capital transfer								
Expense		6				10		
Interest expense						10		
Capital transfer		6						
<i>Net worth / Net operating balance</i>	250	4		254		-4		-4
Nonfinancial assets								
<i>Net financial worth / Net lending (+) / net borrowing (-)</i>	250	4		254		-4		-4
Financial assets	250	79		329		76		76
Currency and deposits	250	-25+24		249		100-24		76
Loan to public financial corporation		100+10		80				
		-6-24						
Liabilities		75		75		80		80
Debt securities		75		75				
Loan from government						100+10		80
						-6-24		
Gross debt	0	75		75	0	80		80
Net debt	-250	-4		-254	0	4		4

Note:

- Government debt increases by 75 (assuming no other economic flows, such as revaluations). Government's net worth increases by 4, as reflected by an increase in of 79 in financial assets and a decrease of 75 in liabilities. The public financial corporation's debt increases by 80, and its net worth decreases by 4.
- From the market interest rate of 10 percent follows that government is providing a capital transfer to the public financial corporation equal to 6 in the first year, 4.8 in the second, 3.6 in the third, 2.4 in the fourth and 1.2 in the last year.
- Interest receivable/payable is recorded as 10 for government and the public financial corporation, respectively.

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**Box 4.13. Statistical Treatment of Debt and Flows arising from Bailout Operations (continued)**

*Example 3:* A public financial corporation is in financial distress. Government purchases a financial asset other than loans from the public financial corporation for 150. The market price of the asset is 100. Government issues bonds to finance this operation.

	General government				Public financial corporation			
	Opening balance sheet	Trans-actions	Other economic flows	Closing balance sheet	Opening balance sheet	Trans-actions	Other economic flows	Closing balance sheet
Revenue						50		
Capital transfer						50		
Expense		50						
Capital transfer		50						
<i>Net worth / Net operating balance</i>	220	-50		170	100	50		150
Nonfinancial assets								
<i>Net financial worth / Net lending (+) / net borrowing (-)</i>	220	-50		170	100	50		150
Financial assets	220	100		320	100	50		150
Currency and deposits	220	150-100-50		220		150		150
Financial asset other than loans		100		100	100	-100		0
Liabilities		150		150				
Debt securities		150		150				
Gross debt	0	150		150	0	0		0
Net debt	-220	50		-170	-100	-50		-150

Note:

- Government debt increases by 150 (assuming no other economic flows, such as revaluations) because government borrowed 150 to finance this bailout operation. Government's net worth declines by 50, as reflected by the acquisition of the asset for more than its true market price (capital transfer of 50). The net worth of the public financial corporation increases by 50, as reflected by the capital transfer receivable from government due to the acquisition of the asset for more than its market value.
- The financial asset (other than loans) is recorded by government at its market price (100).

*Example 4:* A public financial corporation is in financial distress. (a) Government purchases loans from the public financial corporation at their nominal value of 150. According to reliable information, all of these loans are irrecoverable at time of the purchase and that their fair value, in fact, are zero. (b) However, there is a possibility that some of these loans will be recovered in the future. Before the end of that same year, it was determined that 10 of these loans will be recovered in the future. If all these events take place in year 1, then the statistical treatment is:

	General government				Public financial corporation			
	Opening balance sheet	Trans-actions	Other economic flows	Closing balance sheet	Opening balance sheet	Trans-actions	Other economic flows	Closing balance sheet
Revenue						150		
Capital transfer						(a) 150		
Expense		150						
Capital transfer		(a) 150						
<i>Net worth / Net operating balance</i>	220	-150	10	80	150	150	-150	150
Nonfinancial assets								
<i>Net financial worth / Net lending (+) / net borrowing (-)</i>	220	-150	10	80	150	150	-150	150
Financial assets	220	-150	10	80	150	150	-150	150
Currency and deposits	220	(a) -150		70				
Currency and deposits						(a) 150		150
Loans			(a) 0		150		(a) -150	0
Loans			(b) 10	10				
Liabilities								
Debt securities								
Gross debt	0	0	0	0	0	0	0	0
Net debt	-220	150	-10	-80	-150	-150	150	-150

Note:

- Overall, government's net worth declines by 140, as reflected by the capital transfer to the public financial corporation (150) and an increase of 10 in the value of the loans acquired from the public financial corporation. The net worth of the public financial corporation remains the same, as reflected by the capital transfer receivable from government (150) in the form of currency and deposits and the decline of 150 in the value of the loans in its balance sheet.
- If the value of the loan increases in subsequent years (because more of the loans become recoverable), these increases will also be recorded as revaluations in the government's balance sheet.



debt remains unchanged, but net debt decreases due to the increase in financial assets.

- The portion of the investment on which no realistic return can be expected—which may be the entire investment—is treated as a capital transfer, as described in paragraph 4.116.

**4.116** A capital injection in the form of a **capital transfer** (full or partial) is recorded when the funds are provided:

- Without expecting a realistic rate of return; or
- Without receiving anything of equal value in exchange; or
- To compensate for the impairment of assets or capital as a result of accumulated past losses, defaults, or bad assets.

**4.117** The unit providing the assistance records expense in the form of a capital transfer and a decrease in financial assets (such as in the form of currency and deposits) or an increase in liabilities, depending how this capital transfer is financed. The recipient records revenue in the form of a capital transfer and an increase in financial assets in the form of currency and deposits. If the capital transfer is financed through the issue of new debt, gross and net debt of the unit providing the assistance increase, and its net worth and net financial worth decrease as a result of the expense. If the capital transfer is financed with a reduction in financial assets (such as in the form of currency and deposits), net debt increases, and gross debt is unaffected. The recipient's net debt decreases, and its gross debt is unaffected. In determining the magnitude of the capital transfers, the following points need to be taken into account:

- If the government buys assets from the corporation to be assisted, the amount paid may be more than the true market price of the assets.
- The purchase of assets other than loans should be recorded at the current market price, and a capital transfer should be recorded for the difference between the market price and the actual amount paid.
- Governments often buy loans from financial institutions during a bailout. Unless a loan becomes tradable and is traded with established market value, it is always recorded at nominal value. Only if a market for the loans develops and the loans are regularly traded, they are reclassified as securities (see paragraphs 3.34 and 3.39) and also recorded at market value.

- When government buys a loan that has a fair value much less than its nominal value, no capital transfer for the difference in value is recorded. However, if there is reliable information that some loans are irrecoverable, their value is reduced to zero in the balance sheet of the corporation (with an “other volume change”) and a capital transfer is recorded equal to the value paid by the government to the corporation. If some or all of these loans subsequently become recoverable, this is shown as a revaluation in the government's balance sheet.
- If government extends a guarantee as part of a bailout, the guarantees should be recorded according to whether this is a one-off guarantee or part of a standardized guarantee scheme (see paragraphs 4.10–4.20 for details on the statistical treatment of guarantees).

**4.118** If a public institutional unit is created by government solely to assume management of the bailout, the unit should be classified in the general government sector. If the new unit has other functions and the bailout is a temporary task, its classification as a government unit or a public corporation is made according to the rules described in the section on restructuring agencies in Chapter 2.

## 9. Debt arising from public-private partnerships

**4.119** Governments engage in public-private partnerships (PPPs) for a variety of reasons, including the expectation that private management may lead to more efficient production and that access to a broader range of financial sources can be obtained. This section, which is based on *2008 SNA*, paragraphs 22.154–22.163, provides guidance on how to determine to which unit(s) the PPP assets and associated debt should be attributed. Further developments in the treatment of PPPs in the SNA await the adoption of standards under development by the International Public Sector Accounting Standards Board (IPSASB).

### a. Definition

**4.120** *Public-private partnerships (PPPs) are long-term contracts between two units, whereby one unit acquires or builds an asset or set of assets, operates it for a period, and then hands the asset over to a second unit.* Such arrangements are usually between a private enterprise and government, but other combinations are possible, with a public corporation as either party or a private nonprofit institution as the



second party. These schemes are described variously as PPPs, Private Finance Initiatives (PFIs), or Build, Own, Operate, Transfer schemes (BOOTs). For ease of reference, the rest of this section will refer to PPPs between government and a private enterprise.

**4.121** PPPs vary greatly. A general description that includes the most common arrangement is as follows: A private enterprise agrees to acquire a complex of fixed assets and then to use those assets together with other production inputs to produce services. Those services may be delivered to the government, either for use as an input to its own production (for example, motor vehicle maintenance services) or for distribution to the public without payment (for example, education services or untolled roads), in which case the government will make periodic payments during the contract period.<sup>50</sup> The private enterprise expects to recover its costs and earn an adequate rate of return on its investment from those payments. Alternatively, the private enterprise may sell the services to the public (for example, a toll road). The price is regulated by the government but set at a level that will allow the private enterprise to recover its costs and earn a return on its investment. At the end of the contract period, the government may gain legal and economic ownership of the assets, possibly without payment. There can be many variations in PPP contracts regarding aspects such as the disposition of the assets at the end of the contract, the required operation and maintenance of the assets during the contract, and the price, quality, and volume of services produced.

**4.122** The decision whether to record PPP-related assets and liabilities in the government's or the private enterprise's balance sheet is not straightforward. The private enterprise is responsible for acquiring the fixed assets, although the acquisition is often supported by the backing of the government. The contract may require, however, that the assets meet the design, quality, and capacity specified by the government; be used in the manner specified by the government to produce the services required by the contract; and be maintained in accordance with standards specified by the government. Typically, the assets have service lives much longer than the contract period so that, for this reason alone, the government will control the assets, bear the risks, and receive the rewards for a major portion of the assets' service lives. Thus, it frequently is not obvious whether the private enterprise or the government controls the assets over their service lives or which party bears the majority of the risks and reaps the majority of the rewards. "Majority"

<sup>50</sup>The contract period refers to the length of the contractual agreement between the parties involved in the PPP.

should be assessed from an economic point of view. The value of a single risk and reward may imply the "majority" in some cases, while in other cases, the value of a number of separate risks and rewards may do so.

### **b. Statistical treatment of public-private partnerships**

**4.123** The statistical treatment depends on the economic ownership of the asset(s) involved. In macroeconomic statistics, a distinction is made between legal ownership and economic ownership. With a PPP, the legal and economic owner may be different parties. *The legal owner of entities such as goods and services, natural resources, financial assets, and liabilities is the institutional unit entitled in law and sustainable under the law to claim the benefits associated with the entities. The economic owner of entities such as goods and services, natural resources, financial assets, and liabilities is the institutional unit entitled to claim the benefits associated with the use of the entity in question in the course of an economic activity by virtue of accepting the associated risks.* Box 4.14 summarizes the associated risks to be considered.

**4.124** It is not possible to prescribe rules that will be applicable to every PPP type of arrangement. The provisions of each PPP must be evaluated in order to decide which party is the economic owner of the asset(s) involved during and at the end of the contract period. Box 4.15 presents a brief discussion on how some countries apply, in practice, the concept of economic ownership related to PPPs. The following description of the statistical treatment of PPPs is based on the guidelines prescribed in the *2008 SNA*.

**4.125** If the government is assessed as being the economic owner of the asset(s) during the contract period but does not make any explicit payment at the beginning of the contract, a transaction must be imputed to cover the acquisition of the asset(s). The most common suggestion is that the acquisition be made through an imputed financial lease because of the similarity with actual financial leases. The implementation of that choice, however, depends on the specific contract provisions, how they are interpreted, and possibly other factors. For example, a loan could be imputed and actual government payments to the private enterprise, if they exist, could be partitioned so that a portion of each payment represents repayment of the loan (see paragraphs 4.87–4.95). An example of the statistical treatment of a financial lease, where government is the lessee, is presented in Box 4.11.

#### Box 4.14. Consideration of Risks Associated with PPP-Related Asset(s) to Determine Economic Ownership\*

The factors that need to be considered in assessing economic ownership of PPP-related assets include those associated with acquiring the asset and those associated with using the asset. Some of the risks associated with acquiring the asset are:

- The **degree to which the government controls** the design, quality, size, and maintenance of the assets; and
- **Construction risk**, which includes the possibility of additional costs resulting from late delivery, not meeting specifications or building codes, and environmental and other risks requiring payments to third parties.

Some of the risks associated with using the asset in production are:

- **Supply risk**, which covers the degree to which the government is able to control the services produced, the units to which the services are provided and the prices of the services produced;
- **Demand risk**, which includes the possibility that the demand for the services, either from government or from the public at large in the case of a paying service, is higher or lower than expected;
- **Residual value and obsolescence risk**, which includes the risk that the value of the asset will differ from any price agreed for the transfer of the asset to government at the end of the contract period; and
- **Availability risk**, which includes the possibility of additional costs or the incurrence of penalties because the volume and/or quality of the services do not meet the standards specified in the contract.

The relative importance of each factor is likely to vary with each PPP.

\*At the time of drafting this *Guide*, this approach is consistent with draft proposals by IPSASB which use considerations of risk to determine the control of the assets.

**4.126** If the private enterprise is assessed as being the economic owner of the asset(s) during the contract period, any debt associated with the acquisition of the asset(s) is attributed to the private enterprise. Normally, the government obtains legal and economic ownership of the assets at the end of the contract without any significant payment. However, two approaches are possible to account for the acquisition of the asset(s) by government:

- Over the contract period, government gradually builds up a financial claim (for example, other

accounts receivable) and the private enterprise gradually accrues a corresponding liability (for example, other accounts payable), such that both values are equal to the residual value of the assets at the end of the contract period. At the end of the contract period, government records the acquisition of the asset, with a reduction in the financial claim (other accounts receivable) as the counterpart entry. The other unit records the disposal of the asset, with a reduction in the liability (other accounts payable) as the counterpart entry. See Box 4.16, example 1,

#### Box 4.15. Practical Applications of the Economic Ownership Concept

To operationalize the criteria for economic ownership (i.e., whether the risks and rewards accrue to government or to the private enterprise) countries have followed different approaches.

Under Eurostat's guidelines to its member states, a sufficient condition for a PPP to be excluded from government's accounts has been that the private enterprise bears the construction risk in the project and either the availability or the demand risks in using the asset in production. In 2010, Eurostat clarified how other elements (in addition to these three principal risk categories) should be analyzed to determine the distribution of risks between the public and private sectors; notably, the existence and scope of grantor guarantees, majority financing by the grantor of capital cost during the construction phase, and financial aspects of termination clauses (see *ESA95 Manual on Government Deficit and Debt, 2010 Edition*, section VI.5).

Some countries are following accounting standards (for example, IPSAS) applicable to financial leases (as explained in paragraphs 4.87–4.95). If a PPP contract is deemed to be a financial lease, an asset and liability are recorded on the public sector unit's balance sheet, interest and depreciation are recorded as operating expenses, and amortization is recorded as a financial asset transaction. IPSAS treat a lease as a financial lease to the extent that the following criteria are met: (i) the contract period covers most of the useful life of the asset; (ii) the asset is transferred to the lessee (the public sector unit in the case of a PPP) at the end of the contract; (iii) the lessee can purchase the asset at a bargain price at the end of the contract; (iv) the present value of payments prescribed in the contract is close to the fair market value of the asset; and (v) the asset is useful mainly to the lessee.

**Box 4.16. Statistical Treatment of Debt and Flows Arising from PPPs**

The following simplified examples illustrate the statistical treatment of debt and flows arising from PPPs from the viewpoint of both parties.

*Example 1a:* Government and a private corporation agree in a long-term contract that the private corporation build a fixed asset for 100, operates it for a period of 20 years, and then hands the asset over to government at a residual value of 20. The private corporation is assessed as being the economic and legal owner during the contract period and the government obtains legal and economic ownership at the end of the contract without an explicit payment. Government pays the private corporation 5 per year for the use of the fixed asset. The private corporation finances the construction of the asset from existing cash balances. For simplicity, the example ignores consumption of fixed capital and assumes there are no other economic flows. These should be recorded in the usual manner.

Government gradually accrues a financial claim to acquire the asset at its residual value at the end of year 20, and the private corporation gradually accrues a corresponding liability.

In the **first year**, the following stock positions and flows are recorded in the statistics for government and the private corporation, respectively:

	General government				Private corporation			
	Opening balance sheet	Trans-actions	Other economic flows	Closing balance sheet	Opening balance sheet	Trans-actions	Other economic flows	Closing balance sheet
Revenue		1				5		
Capital transfer		(c) 1						
Sales of goods and services						(b) 5		
Expense		5				1		
Use of goods and services		(b) 5						
Capital transfer						(c) 1		
<i>Net worth / Net operating balance</i>	135	-4		131	220	4		224
Nonfinancial assets						(a) 100		100
<i>Net financial worth / Net lending (+) / net borrowing (-)</i>	135	-4		131	220	-96		124
Financial assets	135	-4		131	220	-95		125
Currency and deposits					220	(a) -100		120
Currency and deposits	135	(b) -5		130		(b) 5.0		5
Other accounts receivable		(c) 1		1				
Liabilities						1		1
Other accounts payable						(c) 1		1
Gross debt	0	0		0	0	1		1
Net debt	-135	4		-131	-220	96		-124

Note:

- The private corporation builds a fixed asset for 100 “(a)”, financed through a decrease in currency and deposits “(a)”.
- For the operating lease (i.e., the use of the asset) government has an expense of 5 per year in cash (use of goods and services) “(b)”. The private corporation receives 5 per year in cash from the government (sales of goods and services) “(b)”.
- Government gradually builds up a financial claim (1 per year, 20 residual value ÷ 20 years) “(c)” on the private corporation to receive the fixed asset without an explicit payment at the end of year 20; the corresponding entry is an imputed capital transfer of 1 per year over 20 years “(c)”. The private corporation gradually accrues a corresponding liability “(c)” and an imputed capital transfer “(c)”.
- The private corporation’s gross debt increases by 1 every year.
- At the end of year 1, government’s net worth decreases by 4 (as reflected in the cash payment of 5 for the operating lease and the capital transfer of 1. The private corporation’s net worth increases by 4, as reflected in revenue of 5 for the operating lease and expense of 1 (which is equal to the net changes in assets and liabilities).

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for an illustration of this approach. Implementing this approach may be difficult because it requires new transactions to be constructed using assumptions about expected asset values and interest rates.

- An alternative approach is to record the change of legal and economic ownership from the other unit to government as a capital transfer at the end of the

contract period. At the end of the contract period, government records revenue in the form of a capital transfer which finances the acquisition of the asset and the other unit records an expense in the form of a capital transfer to government, financed by the disposal of the asset. See Box 4.16, example 2, for an illustration of this approach. The capital transfer approach does not reflect the underlying economic

**Box 4.16. Statistical Treatment of Debt and Flows Arising from PPPs (continued)**

*Example 1b:* Government and a private corporation agree in a long-term contract that the private corporation build a fixed asset for 100, operates it for a period of 20 years, and then hands the asset over to government at a residual value of 20. The private corporation is assessed as being the economic and legal owner during the contract period and the government obtains legal and economic ownership at the end of the contract without an explicit payment. Government pays the private corporation 5 per year for the use of the fixed asset. The private corporation finances the construction of the asset from existing cash balances. For simplicity, the example ignores consumption of fixed capital and assumes there are no other economic flows. These should be recorded in the usual manner.

Government gradually accrues a financial claim to acquire the asset at its residual value at the end of year 20, and the private corporation gradually accrues a corresponding liability.

In **year 20**, the following stock positions and flows are recorded in the statistics for government and the private corporation, respectively:

	General government				Private corporation			
	Opening balance sheet	Trans-actions	Other economic flows	Closing balance sheet	Opening balance sheet	Trans-actions	Other economic flows	Closing balance sheet
Revenue		1				5		
Capital transfer		(c) 1						
Sales of goods and services						(b) 5		
Expense		5				1		
Use of goods and services		(b) 5						
Capital transfer						(c) 1		
<i>Net worth / Net operating balance</i>	59	-4		55	216	4		220
Nonfinancial assets		(d) 20		20	20	(d) -20		0
<i>Net financial worth / Net lending (+) / net borrowing (-)</i>	59	-24		35	196	24		220
Financial assets	59	-24		35	215	5		220
Currency and deposits					215	(b) 5		220
Currency and deposits	40	(b) -5		35				
Other accounts receivable	19	(c) 1		20				
Other accounts receivable		(d) -20		-20				
Liabilities					19	-19		0
Other accounts payable					19	(c) 1		0
Other accounts payable						(d) -20		0
Gross debt	0	0		0	19	-19		0
Net debt	-59	24		-35	-196	-24		-220

Note:

- At the end of year 20, the private corporation's debt will be equal to 20, and then it will be extinguished through the transfer of the fixed asset at a residual value of 20 "(d)." At the end of year 20, therefore, the private corporation's gross debt is zero. Similarly, the government's accounts receivable is 20 and will be extinguished by the acquisition of the fixed asset "(d)."
- At the end of year 20, government owns a nonfinancial asset of 20 (the private corporation is no longer the owner of the asset).
- Over the entire period, government's net worth has decreased from 135 to 55 (i.e., by 80), reflecting capital transfers received of 20 and use of goods and services of 100. The private corporation's net worth has remained unchanged. This can be explained by the reduction in the value of the asset from 100 to 20 (i.e., by 80) which was offset by the revenue from the operating lease (100) and the capital transfer expense of 20.

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reality as well, but data limitations, uncertainty about the expected residual value of the assets and contract provisions allowing various options to be exercised by either party could make recording a capital transfer acceptable on pragmatic grounds.

## 10. Debt arising from off-market swaps

**4.127** In macroeconomic statistics, swaps<sup>51</sup> give rise to financial derivatives, which are nondebt instruments

<sup>51</sup>A swap contract involves the counterparties exchanging, in accordance with prearranged terms, cash flows based on the reference prices of the underlying items.

**Box 4.16. Statistical Treatment of Debt and Flows Arising from PPPs (continued)**

*Example 2a:* This example is the same as example 1, but here government acquires the asset by way of a capital transfer, at the end of year 20. Government and a private corporation agree in a long-term contract that the private corporation build a fixed asset for 100, operates it for a period of 20 years, and then hands the asset over to government at a residual value of 20. The private corporation is assessed as being the economic and legal owner during the contract period and the government obtains legal and economic ownership at the end of the contract without an explicit payment. Government pays the private corporation 5 per year for the use of the fixed asset. The private corporation finances the construction of the asset from existing cash balances. For simplicity, the example ignores consumption of fixed capital and assumes there are no other economic flows. These should be recorded in the usual manner.

In the **first year**, the following stock positions and flows are recorded in the statistics for government and the private corporation, respectively:

	General government				Private corporation			
	Opening balance sheet	Trans-actions	Other economic flows	Closing balance sheet	Opening balance sheet	Trans-actions	Other economic flows	Closing balance sheet
Revenue						5		
Sales of goods and services						5		
Expense		5						
Use of goods and services		5						
<i>Net worth / Net operating balance</i>	135	-5		130	220	5		225
Nonfinancial assets								
<i>Net financial worth / Net lending (+) / net borrowing (-)</i>	135	-5		130	220	5		225
Financial assets	135	-5		130	220	5		225
Currency and deposits	135	-5		130	220	5		225
Liabilities								
Gross debt	0	0		0	0	0		0
Net debt	-135	5		-130	-220	-5		-225

Note:

- For the operating lease government has an expense of 5 per year in cash (use of goods and services). The private corporation receives 5 per year in cash from the government (sales of goods and services).
- Unlike example 1, there is no gradual build-up of a financial claim or liability.
- Neither the government nor the private corporation incurs gross debt from these transactions.
- At the end of year 1, government's net worth decreases by 5 (as reflected in the cash payment of 5). The private corporation's net worth increases by 5, as reflected in revenue of 5.

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(see paragraph 2.6). However, off-market swaps have a debt component.

#### **a. Definition**

**4.128** *An off-market swap is a swap which has a nonzero value at inception as a result of having reference rates priced differently from current market values (i.e., "off-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 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 pay-

ment, this will be part of public sector debt. Examples of swaps contracts that may involve off-market reference rates include interest rate and currency swaps.

#### **b. Statistical treatment of off-market swaps**

**4.129** Because the economic nature of an off-market swap is equivalent to a combination of a loan and a financial derivative, two stock positions are recorded in the balance sheet (as shown in Box 4.17):

- a loan—a debt instrument—which is equal to the nonzero value of the swap at inception and with a maturity date equivalent to the expiration date of the swap; and

**Box 4.16. Statistical Treatment of Debt and Flows Arising from PPPs (continued)**

*Example 2b:* This example is the same as example 1, but here government acquires the asset by way of a capital transfer, at the end of year 20. Government and a private corporation agree in a long-term contract that the private corporation build a fixed asset for 100, operates it for a period of 20 years, and then hands the asset over to government at a residual value of 20. The private corporation is assessed as being the economic and legal owner during the contract period and the government obtains legal and economic ownership at the end of the contract without an explicit payment. Government pays the private corporation 5 per year for the use of the fixed asset. The private corporation finances the construction of the asset from existing cash balances. For simplicity, the example ignores consumption of fixed capital and assumes there are no other economic flows. These should be recorded in the usual manner.

In year 20, the following stock positions and flows are recorded in the statistics for government and the private corporation, respectively:

	General government				Private corporation			
	Opening balance sheet	Trans-actions	Other economic flows	Closing balance sheet	Opening balance sheet	Trans-actions	Other economic flows	Closing balance sheet
Revenue		20				5		
Capital transfer		20						
Sales of goods and services						5		
Expense		5				20		
Use of goods and services		5						
Capital transfer						20		
Net worth / Net operating balance	40	15		55	235	-15		220
Nonfinancial assets		20		20	20	-20		0
Net financial worth / Net lending (+) / net borrowing(-)	40	-5		35	215	5		220
Financial assets	40	-5		35	215	5		220
Currency and deposits	40	-5		35	215	5		220
Liabilities								
Gross debt	0	0		0	0	0		0
Net debt	-40	5		-35	-215	-5		-220

Note:

- At the end of year 20, government acquires the nonfinancial asset for 20 (the private corporation is no longer the owner of the asset) and a capital transfer of 20 is recorded.
- Over the entire period, government's net worth has declined from 135 to 55 (i.e., by 80), reflecting capital transfers received of 20 and use of goods and services of 100. The private corporation's net worth has remained unchanged. This can be explained by the reduction in the value of the asset from 100 to 20 (i.e., by 80) which was offset by the revenue from the operating lease (100) and the capital transfer expense of 20.
- The results at the end of year 20 in this example are the same for both parties in this PPP when compared with the treatment in example 1. The difference is in the accrual of the capital transfer over the 20 years in example 1, instead of a capital transfer of 20 at the end of year 20.

- a financial derivative (swap) component—a non-debt instrument—which is an on-market swap, with a notional principal equivalent to the notional principal of the off-market swap (net of the loan), and which is zero at inception.

**4.130** The loan position is a liability of the party that receives the lump sum, while the derivative position may appear either on the financial asset or liability side, depending on market prices on the balance sheet date.

**4.131** Future streams of flows relating to these stock positions are also partitioned between those relating to the loan and financial derivative component, respectively.

## II. Debt arising from unfunded public sector employer pension schemes

**4.132** A pension fund for public sector employees can be managed on behalf of the public sector unit (for example, government) by a public or private insurance corporation or



### Box 4.17. Statistical Treatment of an Off-Market Swap

The following example illustrates the statistical treatment of an “off-market” swap for a public sector unit. It first describes an “on-market” swap in order to contrast this with an “off-market” swap.

*On-market swap:* Assume that a government debt management office issues a five-year floating rate bond (at par) with a face value of 100 domestic currency and with the coupon set at three-month domestic currency LIBOR. At this point, the market value of the bond is 100 domestic currency. At the same time, the government debt management office enters into a five-year currency swap, whereby a principal of 100 domestic currency is exchanged for foreign currency at the prevailing market exchange rate of 1 domestic currency unit = 1.25 foreign currency (i.e., the government debt management office receives a principal of 125 foreign currency), with the underlying cash flows linked to three-month domestic currency LIBOR and three-month foreign currency LIBOR, respectively. At this point, the market value of the debt is still 100 domestic currency. The cash flows for the first three-month period is set on both the domestic and foreign currency legs, respectively, on inception, and paid after three months, when the cash flows for the coming period are fixed. At the end of the swap, the principals are reversed, with the government debt office receiving back the principal of 100 domestic currency, which is then used to repay the underlying bond (of 100 domestic currency), while paying the principal of 125 foreign currency. The overall effect of this swap is to translate the characteristics of the original domestic currency floating rate bond into an equivalent foreign currency floating rate bond. This changes the nature of both the exchange rate and interest rate exposure of the government debt portfolio.

In macroeconomic statistics, the value of the financial derivative, at inception, is zero. Subsequently, the financial derivative position in the balance sheet may appear either on the financial asset or liability side, depending on value of the derivative on the balance sheet date.

*Off-market swap:* Assume the same as above, except that the exchange rate assumed on the exchange of principals is set at a rate of 1 domestic currency = 1 foreign currency. Under this scenario and using the prevailing market exchange rate of 1.25, the market value of the post-swap debt is 80 domestic currency (= 100 foreign currency) rather than 100 domestic currency, where  $80 = (100 \times [1 \div 1.25])$ . Assuming the swap is constructed in such a way that the cash flows are as they would be under the original swap—this means that the coupon flows on the foreign currency leg would need to be set to three-month foreign currency LIBOR scaled up by a factor of 1.25—then the value of the swap would be 20 domestic currency (= 25 foreign currency) on inception. The government debt office receives an actual cash payment of 25 foreign currency (= 20 domestic currency). From a macroeconomic statistics viewpoint, this cash payment represents a loan (liability) of the government debt office toward the swap counterparty. The value of the financial derivative component, at inception, is zero. Subsequently, the financial derivative position in the balance sheet may appear either on the financial asset or liability side, depending on value of the derivative (net of the loan) on the balance sheet date.

At inception, the following transactions and stock positions are recorded for general government:

	General government			
	Opening balance sheet	Transactions	Other economic flows	Closing balance sheet
Revenue				
Expense				
<i>Net worth / Net operating balance</i>	0	0		0
Nonfinancial assets	0	0		0
<i>Net financial worth / Net lending (+) / net borrowing (-)</i>	0	0		0
Financial assets	0	100		100
Currency and deposits: Domestic currency denominated	0	100-100		0
Currency and deposits: Foreign currency denominated	0	+80+20		100
Financial derivatives	0	0		0
Liabilities	0	100		100
Bond: Domestic currency denominated	0	100-100		0
Bond: Foreign currency denominated	0	+80		80
Loan from swap counterparty: Foreign currency denominated	0	+20		20
Financial derivative	0	0		0
Gross debt	0	100		100
Net debt	0	0		0

Note:

- Currency and deposits: increase by 100 (domestic currency) when the bond is issued and decrease by 100 because of the swap. Then, foreign currency denominated currency and deposits increase by 100, comprising the new value of the bond as a result of the swap (80) and the lump sum cash payment (20).
- Total gross debt remains the same (100 domestic currency) but its composition has changed from domestic currency denominated to foreign currency denominated. The market value of the bond is 80 after the swap and the loan liability is 20. Net debt is zero before and after the swap.
- The value of the financial derivative component (i.e., the “on-market” swap) is zero at inception.

**Box 4.18. Statistical Treatment of Unfunded Nonautonomous Pension Schemes**

The following example illustrates the statistical treatment of an unfunded nonautonomous retirement scheme of a public sector unit, such as government. Assume the opening balance sheet values as given. On December 31, actuarial calculations indicate that the present value of future benefits, based on existing circumstances, is 1,005. Benefits payable during the year are 45. Assume no other economic flows such as changes in the benefits.

The following stock positions and flows are recorded:

	General government			
	Opening balance sheet	Transactions	Other economic flows	Closing balance sheet
Revenue				
Expense		50		
Imputed social contributions		50		
<i>Net worth / Net operating balance</i>	-800	-50		-850
Nonfinancial assets	0			0
<i>Net financial worth / Net lending (+) / net borrowing (-)</i>	-800	-50		-850
Financial assets	200	-45		155
Currency and deposits	200	-45		155
Liabilities	1,000	5		1,005
Insurance, pension, and standardized guarantee schemes	1,000	50-45		1,005
Gross debt	1,000	5		1,005
Net debt	800	50		850

Note:

- Imputed contributions made by the employer on behalf of employees of 50 are calculated as the residual value of the closing balance sheet value (1,005) minus the opening balance sheet value (1,000) minus benefits payable (-45) minus other economic flows (0). There are no actual contributions made by the employees.
- Total gross debt increases from 1,000 to 1,005 as a result of the imputed social contributions payable (50) and the benefits payable (45). Net debt increase from 800 to 850 because of the reduction in currency and deposits (45) and the net increase of 5 in the liability for future retirement benefits.

it can be organized and managed by the public sector unit as an autonomous or nonautonomous pension fund.

**4.133** A nonautonomous pension fund is not a separate institutional unit and the assets of the fund belong to the employer. By its nature, an unfunded scheme is not a separate institutional unit and must be organized and managed by the employer, which may be a general government unit or a public corporation. The employees, however, have a claim against the employer, and the employer has a liability equal to the present value of the future benefits payable. This liability forms part of debt and is classified under the debt instrument insurance, pension, and standardized guarantee schemes.

**4.134** If a public sector unit, such as the budgetary central government, operates a unfunded pension scheme, then it will have the following transactions in debt liabilities for insurance, pension, and standardized guarantee schemes:

- Social contributions receivable in the current period from employees, employers, or other institutional units on behalf of individuals or households

that have claims on the public sector unit for future retirement benefits will increase the public sector unit's debt liability. The existing liability will increase over time because the future payments are discounted over fewer periods. Debt liabilities in the form of insurance, pension, and standardized guarantee schemes will increase (credit), with the corresponding entry being an expense in the form of imputed social contributions (debit).

- Benefits paid in the current period to retired persons or their dependents and survivors in the form of periodic payments or lump sums reduce the debt liability (debit), with the corresponding entry being a decrease in currency and deposits (credit).

**4.135** An example of the recording of stocks and flows related to unfunded public sector employer pension schemes is given in Box 4.18.

## 12. Debt arising from government's assumption of pension liabilities

**4.136** On occasion, large one-off transactions may occur between a government and another public sector

unit, usually a public corporation, linked to pension reforms or to privatizations of public corporations. The goal may be to make a public corporation competitive and financially more attractive by removing existing pension liabilities from the balance sheet of the public corporation. This goal is achieved by government assuming the liability in question in exchange for a cash payment of the same value from the public corporation. If the cash payment is not equal in value to the liability incurred, a capital transfer from government to the public corporation is recorded for the difference.

**4.137** The assumer (government) records an increase in debt liabilities for pensions (credit), an increase in financial assets in the form of currency and deposits (debit), and an expense in the form of capital transfer to the public corporation (debit). The public corporation records a decrease in debt liabilities for pensions (debit), a decrease in financial assets in the form of currency and deposits (credit), and revenue in the form of capital transfer from government (debit).

**4.138** Gross debt of the government increases by the value of the pension liability assumed, and net debt increases equal to the value of the capital transfer. Net worth and net financial worth decrease by the value of the capital transfer. Gross debt of the public corporation decreases by the value of the pension liability assumed, and net debt decreases equal to the value of the capital transfer. Net worth and net financial worth increase by the value of the capital transfer.

### 13. On-lending of borrowed funds

#### a. Definition

**4.139** *On-lending of borrowed funds refers to a resident institutional unit, A (usually central government), borrowing from another institutional unit(s), B (usually a nonresident unit), and then on-lending the proceeds from this borrowing to a third institutional unit(s), C (usually state or local governments, or a public corporation[s]), where it is understood that unit A obtains an effective financial claim on unit C.* On-lending of borrowed funds are motivated by several factors. For example:

- Institutional unit A may be able to borrow from unit B at more favorable terms than unit C could borrow from unit B; or
- Institutional unit C's borrowing powers are limited by factors such as foreign exchange regulations; only unit A can borrow from nonresidents.

**4.140** On-lending results in (at least) two separate financial claims. These claims should not be offset against each other in government finance and public sector debt statistics; institutional unit A has a debt liability to unit(s) B, and unit(s) C has a debt liability to unit A, which may be consolidated (see paragraph 4.145). Depending on the residence of institutional unit(s) B and C, respectively, these debt liabilities (and the corresponding financial claims) are classified as domestic or external.

#### b. Statistical treatment of on-lending of borrowed funds

**4.141** If the resident institutional unit (A), which on-lends the borrowed funds to unit(s) C, obtains an effective financial claim on unit(s) C, the statistical treatment of on-lending of borrowed funds depends on the residence of the creditor(s) from which unit A is borrowing (i.e., unit[s] B), as well as the residence of unit(s) C to which unit A is on-lending the borrowed funds, as summarized in Table 4.2.

**4.142** The classification of the debt liability of institutional unit A to unit(s) B depends on the type of instrument(s) involved: typically, such borrowing is in the form of loans and/or debt securities. In such cases, institutional unit A's debt liabilities in the form of loans and/or debt securities increase (credit) as a result of the borrowing from unit(s) B, with a corresponding increase (debit) in unit A's financial assets in the form of currency and deposits. These events result in an increase in the gross debt position of unit A, but no change in its net debt position.

**4.143** The debt liability of institutional unit(s) C to unit A, as a result of the on-lending of the borrowed

**Table 4.2. Summary of the Statistical Treatment of On-lending of Borrowed Funds by Institutional Unit A**

1. Unit A borrows from unit(s) B	Depending on the residence of institutional unit(s) B, unit A has a domestic/external debt liability to unit(s) B. (Institutional unit[s] B has a domestic/external financial claim on unit A.)
2. Unit A on-lends to unit(s) C	Depending on the residence of institutional unit(s) C, unit A has a domestic/external financial claim on unit(s) C. (Unit[s] C has a domestic/external liability to unit A.)

**Box 4.19. Statistical Treatment of On-Lending of Borrowed Funds**

The following example illustrates the statistical treatment of on-lending of borrowed funds. General government unit (A) borrows 100 from a foreign government (B), and on-lends these funds to a resident public corporation (C). The external loan is repaid over five years and interest is payable annually at a rate of 5 percent. Every year, the public corporation provides the funds (23.1) for the amortization of the external loan. For simplicity, it is assumed that there are no other economic flows (for example, exchange rate changes). The following stock positions and flows are recorded for general government and the public corporation in year 1.

	General government				Public corporation			
	Opening balance sheet	Trans-actions	Other economic flows	Closing balance sheet	Opening balance sheet	Trans-actions	Other economic flows	Closing balance sheet
Revenue		5						
Interest on loan to public corporation		(c) 5						
Expense		5				5		
Interest on external loan		(d) 5				(c) 5		
Interest on loan from government								
<i>Net worth / Net operating balance</i>		0		0		-5		-5
Nonfinancial assets								
<i>Net financial worth / Net lending (+) / net borrowing (-)</i>		0		0		-5		-5
Financial assets		81.9		81.9		76.9		76.9
Currency and deposits		(a) 100		0		(b) 100		76.9
Currency and deposits		(b) -100						
Currency and deposits		(e) 23.1				(e) -23.1		
Currency and deposits		(f) -23.1						
Loan to public corporation		(b) 100		81.9				
Loan to public corporation (accrued interest)		(c) 5						
Loan to public corporation (repayment)		(e) -23.1						
Liabilities		81.9		81.9		81.9		81.9
External loan		(a) 100		81.9				
External loan (accrued interest)		(d) 5						
External loan (repayment)		(f) -23.1						
Loan from government						(b) 100		81.9
Loan from government (accrued interest)						(c) 5		
Loan from government (repayment)						(e) -23.1		
Gross debt		81.9		81.9		81.9		81.9
Net debt		0		0		5		5

Note:

- Government's financial assets: currency and deposits increase by 100 (a) as a result of the 100 increase in external debt liabilities (a).
- Government's financial assets: currency and deposits decrease by 100 (b) as a result of the (domestic) loan extended to the public corporation (b). The public corporation's financial assets: currency and deposits increase by 100 (b) as a result of the increase in the public corporation's debt liabilities to general government (b).
- Interest of 5 (c) accrues on the domestic loan from government to the public corporation, and on the external loan that government obtained from the foreign government (d).
- The public corporation makes an annual payment of 23.10 to repay the domestic loan it obtained from general government. As a result, the public corporation's debt liability to general government decreases by 23.1 (e) and its financial assets: currency and deposits decrease by 23.1. General government's claim on the public corporation decreases by 23.1 (e) and its currency and deposits increase by 23.1 (e).
- General government makes an annual payment of 23.10 to repay the external loan it obtained from the foreign government. As a result, government's debt liability to the foreign government decreases by 23.1 (f) and its financial assets: currency and deposits decrease by 23.1 (f).
- Gross (external) debt liabilities of general government are 81.9 at the end of year 1 but its net debt does not change as a result of the borrowing and on-lending of the borrowed funds. Gross (domestic) debt liabilities of the public corporation is 81.9 at the end of year 1, and its net debt is 5 (81.9-76.9).

funds, is typically in the form of a loan. In other words, institutional unit C's debt liabilities increase (credit) as a result of the borrowing from unit A, with a corresponding increase (debit) in unit C's financial assets in the form of currency and deposits. These events result in an increase in the gross debt position of unit C, but no change in its net debt position.

**4.144** Institutional unit A's financial assets (for example, loans) will increase (debit) as a result of the on-lending to unit C and its financial assets in the form of currency and deposits will decrease (credit). For institutional unit A, these events have no effect on its gross and net debt positions.

**4.145** If institutional unit(s) C is classified to the same sector, subsector, or group of units as unit A, this debt liability (and corresponding financial claim) is eliminated in consolidation, as explained in Chapter 8.

**4.146** The amortization of each of the debt liabilities (and corresponding financial assets) is recorded in the books of the unit in which balance sheet the debt liability appears. Thus, if institutional unit A has a debt liability to unit B, the amortization of this (usually external) liability (debit) is recorded in the books of unit A, even if these borrowed funds were on-lent to unit C. The amortization of institutional unit A's debt liability to unit B improves unit A's gross debt position while its net debt position remains the same.

**4.147** Similarly, the amortization of institutional unit C's (usually domestic) debt liability (debit) to unit A is recorded in the books of unit C. Unit A would record a decrease (credit) in its (domestic) financial claims on unit C. The amortization of institutional unit C's debt liability to unit A improves unit C's gross debt position, while its net debt position remains the same. Institutional unit A's gross and net debt positions are unaffected by the extinction of the financial claim it has on unit C, because it exchanges a financial asset in the form of a loan for currency and deposits.

**4.148** Box 4.19 provides an example of the statistical treatment of the on-lending of borrowed funds, and their subsequent amortization.

## 14. Stock positions and related flows with the IMF

**4.149** This section briefly describes the stock positions and flows in financial assets and liabilities of

member countries with the IMF as they relate to public sector debt statistics. Debt data compilers first have to determine in which public sector unit(s) to record the stock positions and related flows with the IMF. Stock positions and flows in financial assets and liabilities of member countries with the IMF are usually recorded in the accounts of the public sector unit determined by the legal and institutional arrangements in the member country.

**4.150** The IMF conducts its dealings with a member through the fiscal agency and the depository:

- Each member country designates a fiscal agency to conduct financial transactions with the IMF on behalf of the member.<sup>52</sup>
- Each member is also required to designate its central bank as a depository for the IMF's holdings of the member's currency.<sup>53</sup> In most member countries, the central bank is the fiscal agency and the depository.

**4.151** The next sections discuss member countries' quotas in the IMF, their reserve positions in the IMF, remuneration (interest) receivable from the IMF, the account that is used for administrative payments (the "No. 2 Account"), and their SDR allocations and holdings.

### a. Quotas

**4.152** Member countries are assigned a quota on joining the IMF. A quota is the capital subscription, expressed in SDRs, that each member must pay the IMF on joining and consists of two components:

- **Foreign exchange component.** A member is required to pay 25 percent of its quota in SDRs or in foreign currencies acceptable to the IMF. This 25 percent portion is a component of the member's reserve assets and is known as the "reserve tranche." In the public sector unit's accounts, subscribing this portion is shown as a transaction involving an increase in external financial assets in the form of currency and deposits (i.e., the reserve tranche position), which is a claim on the IMF (debit), offset by an equal reduction in existing external financial assets<sup>54</sup> (credit).

<sup>52</sup>The fiscal agency may be the member's treasury (ministry of finance), central bank, official monetary agency, stabilization fund, or other similar agency. The IMF can only deal with, or through, the designated fiscal agency.

<sup>53</sup>If the member has no central bank, a monetary agency or a commercial bank acceptable to the IMF can be designated as the depository.

<sup>54</sup>The type of instrument varies.



- **Domestic currency component.** The remaining 75 percent of the quota is payable in the member's own currency at the designated depository. The payment is made either in domestic currency (IMF No. 1 and No. 2 Accounts) or by issuance of a promissory note (and recorded in the IMF Securities Account). The No. 1 Account is used for the IMF's operational transactions (for example, purchases and repurchases), and small transfers may be made from this account to the No. 2 Account, which is used for the payment of local administrative expenses incurred by the IMF in the member's currency. The promissory notes are encashable by the IMF on demand. The domestic portion of the quota payment is not recorded in the public sector unit's accounts, except for the No. 2 Account (see below). No interest is payable on either the deposit account or the note.

**4.153** There are periodic reviews of the size of member quotas. Recording transactions that reflect a change in a member's quota is the same as the recording that takes place when the quota is initially paid.

#### **b. Reserve position in the IMF**

**4.154** A member country's reserve position in the IMF equals the sum of the reserve tranche plus any indebtedness of the IMF (under a loan or note purchase agreement) in the General Resources Account that is readily available to the member country (for further details, see paragraph 6.85 of *BMP6*). The reserve tranche represents the member's unconditional drawing right on the IMF, created by the foreign exchange portion of the quota subscription, plus increases (decreases) through the IMF's sale (repurchase) of the member's currency to meet the demand for use of IMF resources by other members in need of balance of payments financing. A member's reserve position in the IMF constitutes part of its reserve assets (external financial assets).

**4.155** To utilize its reserve tranche in the IMF, a member must present a declaration of a balance of payments need and purchase foreign exchange from the IMF with its own currency. The domestic currency, equal to the value of the foreign exchange, is paid into the IMF's No. 1 Account with the member's central bank or through the issuance to the IMF of a promissory note recorded in the IMF's Securities Account. The transaction is recorded in the public sector unit's accounts as a reduction in the member's external financial assets in the form of currency and deposits (i.e., the reserve tranche position in the IMF), which is offset by

an increase in the member's external financial assets (the type of instrument varies).

#### **c. Credit and loans from the IMF**

**4.156** A member may make use of IMF credit or concessional loans under the trusts administered by the IMF (for financing for low-income countries) to acquire additional foreign exchange from the IMF. The use of IMF credit and loans results in the same outcome—that is, the member entering into these agreements has access to foreign exchange in return for agreeing to meet a set of conditions. Both IMF credit and concessional loans are classified in the public sector unit's accounts as external liabilities in the form of loans, although the two types of arrangements are executed in different ways:

- These concessional loans result in the member borrowing foreign exchange with a commitment to repay. Such loans do not affect the IMF No. 1 Account.
- When a member country uses IMF credit, it “purchases” foreign exchange from the IMF in return for its domestic currency. Use of IMF credit is shown as the member's loan liability (denominated in SDRs) in the accounts of the public sector unit, reflecting the economic nature of the transaction. Liabilities under IMF credit arrangements are extinguished when the member uses foreign exchange to “repurchase” its domestic currency.

**4.157** For use of IMF credit, if the value of the member's domestic currency changes in relation to the SDR, “maintenance of value payments” are made once a year in the No. 1, No. 2, and Securities Accounts in domestic currency to maintain a constant SDR liability. Because the liability is denominated in SDRs, the maintenance of value payments are not entered as transactions in the central bank's accounts, but as holding gains/losses (revaluations) when the domestic currency is used as the unit of account.

**4.158** When the central bank passes on proceeds from IMF borrowing to a general government unit:

- The central bank has a domestic financial claim (loan) on the general government unit and the general government unit has a domestic debt liability to repay (principal and interest).
- The central bank has an external debt liability to repay, and may use the debt-service payments received from the general government unit to do so.



**d. Remuneration**

**4.159** The IMF pays its members “remuneration” quarterly (in SDRs) on the basis of their reserve tranche position, except for a small portion related to prior quota payments in gold that are interest-free resources to the IMF. This remuneration should be classified on an accrual basis as interest income (revenue) of the public sector unit, which is offset by an increase in its external financial assets in the form of currency and deposits.

**e. IMF No. 2 Account**

**4.160** As discussed previously, the IMF No. 2 Account is used by the IMF for administrative payments and is reflected as a liability in the public sector unit’s accounts. Transactions involving the No. 2 Account are recorded as increases or decreases in this liability and are offset by the source of funds (in the case of an increase) or the use of funds (in the case of a decrease). When the IMF transfers funds from the No. 1 Account to the No. 2 Account, the public sector unit’s accounts will show an increase in its reserve tranche (i.e., currency and deposits). The increase reflects the reduction in IMF holdings of the member’s currency in the No. 1 Account and is offset by an increase in the member’s liabilities relating to currency and deposits.

**f. Special drawing rights (SDRs)**

**4.161** The SDR is an international reserve asset created by the IMF in 1969. The SDR is administered by the IMF’s SDR Department, which is required by the IMF’s Articles of Agreement to keep its accounts strictly separate from the General Department. Members participating in the SDR Department incur the financial asset or liability position unto itself. Given that financial claims on and liabilities to members in the SDR system are attributed on a cooperative basis, a residual partner category—other nonresidents—is used as the counterparty to SDR holdings and allocations.<sup>55</sup>

**4.162** SDR allocations received by a country are recorded as transactions in liabilities in the form of SDRs (part of gross debt of the public sector unit) with a corresponding entry for SDR holdings as a financial asset. The calculation of a public sector unit’s net debt takes into account SDR holdings and SDR allocations. Interest

income on SDR holdings (revenue) and interest expense on SDR allocations are accrued on a gross basis to the outstanding financial asset and liability, respectively.

**4.163** The SDR allocation is debt of the recipient (i.e., the participant in the SDR Department), and forms part of public sector debt. The SDR holdings are part of the public sector’s financial assets. However, the international statistical systems do not specify on which balance sheet SDR holdings and allocations should be recorded (for example, the central bank or a general government entity such as the ministry of finance or treasury). This is because SDR allocations are made to IMF members that are participants in the SDR Department of the IMF, and it is for those members to follow domestic legal and institutional arrangements to determine the ownership and recording of SDR allocations and SDR holdings in the public sector.

**4.164** For GFS and public sector debt statistics it is particularly relevant in which public sector unit’s accounts the SDR holdings and allocations are recorded. If the SDR allocation is recorded on the government’s balance sheet, the allocation is part of general government debt. If the SDR allocation is on the central bank’s balance sheet, the allocation is not part of general government debt but still part of public sector debt.

**4.165** SDRs are held exclusively by participants and prescribed holders,<sup>56</sup> and are transferable among them. At the time of the SDR allocation, the amounts recorded as SDR allocations (liabilities) and holdings (financial assets) are identical and on the same public sector unit’s balance sheet. This public sector unit—as official holder—may, subsequently, exchange some or all of its SDR holdings (financial asset) with other official holders for a freely usable currency(ies). In this case, the SDR allocations and holdings on the balance sheet of the public sector unit are no longer identical; the SDR holdings are less than the allocations because they have been converted into freely usable currencies (i.e., currency and deposits). As a result, interest payable on the SDR allocation of public sector unit will be larger than interest receivable on its SDR holdings. Interest receivable on the SDR holdings exchanged will accrue to the new holder.

<sup>55</sup>See Chapter 3 for a discussion of the classification of the counterparty by institutional sector.

<sup>56</sup>The IMF considers members participating in the SDR Department to be holders of SDRs but members may adopt domestic arrangements with respect to the agencies (for example, central banks, ministries of finance, treasury departments) that will hold the SDRs and carry the corresponding SDR allocations as liabilities. The IMF has also prescribed a limited number of international financial institutions as holders of SDRs.