



# 6

## Further External Debt Accounting Principles

### Introduction

**6.1** Data compiled and presented using the concepts and definitions described in the previous chapters provide comprehensive coverage and an informed picture of the gross external debt position for the whole economy and/or the public sector. However, such data do not provide a complete picture of emerging vulnerabilities to solvency and liquidity risk. For instance, the currency and interest rate composition of external debt liabilities, and the pattern of future payments, might all be potential sources of vulnerability. To assist in compiling additional data series of analytical use in understanding the gross external debt position, this chapter provides further accounting principles. These principles, as well as those described in earlier chapters, are drawn upon to provide illustrative presentation tables in the next chapter.

**6.2** This chapter discusses further accounting principles under three broad headings:

- Sectors, maturity, and instruments
- Specific characteristics of external debt
- Principles for the compilation of debt-service and other payment schedules

### Sectors, Maturity, and Instruments

#### Creditor Sectors

**6.3** Information on the nonresident creditor sector that owns external debt is disseminated by many economies, although obtaining accurate information on the nature of the creditor (residency and sector) for negotiable debt may be challenging for compilers. The sectors defined in Chapter 3 (general government, central bank, deposit-taking corporations, except the central bank, and other sectors) and in Chapter 5 (public and private sectors) are creditor and

debtor sectors. Other commonly identified creditor sectors are multilateral (international) organizations<sup>1</sup> and official creditors.

**6.4** Multilateral organizations are entities established by political agreements among member countries that have the status of international treaties. Multilateral organizations are accorded appropriate privileges and immunities and are generally not subject to, or are only partially subject to, the laws and regulations of the economies in which the organizations are located. Typically these organizations provide financial intermediation services at an international level, channeling funds between lenders and borrowers in different economies<sup>2</sup> and/or nonmarket services of a collective nature for the benefit of members. As creditors, multilateral organizations are sometimes also referred to as official multilateral creditors.

**6.5** Official creditors are public sector creditors, including multilateral organizations. External debt owed to official creditors might also include debt that was originally owed to private creditors but that was guaranteed by a public entity in the same economy as the creditor (e.g., an export credit agency). Official bilateral creditors are official creditors in individual countries. This category of creditor is particularly relevant in the context of Paris Club discussions. The Paris Club is an informal group of official bilateral creditors which seeks to find coordinated and sustainable solutions to external public debt payment difficulties facing some of its debtors. It provides debt relief treatments to debtor countries through debt

<sup>1</sup>Multilateral organizations are referred to as international organizations in *BPM6* (see *BPM6*, paragraphs 4.103–4.107).

<sup>2</sup>Examples of multilateral organizations involved in financial intermediation (also known as financial international organizations or institutions) are currency union central banks, the IMF, World Bank Group, BIS, and regional development banks.

flow rescheduling and/or stock operations. It is not a formal institution, and it does not have a legal status (see Box 8.2).

## Remaining Maturity

**6.6** While it is recommended that in the gross external debt position the short-term/long-term maturity attribution be made on the basis of original maturity (i.e., the period of time from when the liability was created to its final maturity date), there is also analytical interest in attribution on the basis of remaining maturity (i.e., the period of time from the reference date until the debt payments fall due).<sup>3</sup> Remaining-maturity measures (sometimes referred to as *residual-maturity measures*) provide an indication of when payments will fall due, and so of potential liquidity risks facing the economy. Particularly important is information on payments coming due in the near term.

**6.7** The *Guide* recommends that short-term remaining maturity be measured by adding the value of outstanding short-term external debt (original maturity) to the value of outstanding long-term external debt (original maturity) due to be paid in one year or less. These data include all arrears. Conceptually, at the reference date the value of outstanding long-term external debt (original maturity) due to be paid in one year or less is the discounted value of payments to be made in the coming year, both interest and principal.<sup>4</sup> The value of outstanding long-term (original maturity) debt due to be paid over one year ahead is classified as long-term debt on a remaining-maturity basis.

**6.8** The information content provided is one reason for recommending such an approach. Short-term debt on an original maturity basis is identifiable from the gross external debt position. Measuring the value of outstanding long-term external debt (original maturity) falling due in one year or less may raise practical difficulties, in which instance, one proxy measure that might be used is the undiscounted value

of principal payments on long-term external debt obligations (original maturity basis) due to mature in one year or less. This proxy measure is incomplete in its coverage of interest payments falling due in the coming year but can be compiled using the principles for projecting payments in a debt-service schedule (see paragraphs 6.25–6.26).<sup>5</sup>

## Trade-Related Credit

**6.9** In the *Guide*, trade credit and advances as presented in the gross external debt position is defined in Chapter 3—the direct extension of credit by suppliers of goods and services to their customers and advances for work that is in progress (or is yet to be undertaken) and prepayment by customers for goods and services not yet provided—consistent with the 2008 SNA and BPM6. To assist in compiling additional data series, this chapter introduces a wider concept of trade-related credit, which also captures other credits provided to finance trade activity, including through banks. It is defined as including trade credit and advances, trade-related bills (see paragraphs 6.10–6.11), and credit provided by third parties to finance trade, such as loans from a foreign financial or export credit institution to the buyer. A table for presenting data on trade-related credit is provided in the next chapter.

**6.10** A particularly difficult issue of classification arises from trade bills drawn on the importer and provided to the exporter, which are subsequently discounted by the exporter with a financial institution. These instruments might be regarded by the importer as the direct extension of credit by the exporter, but once discounted they become a claim by a third party on the importer. Where an instrument is provided to the exporter with such characteristics that it is negotiable in organized and other financial markets, such as a promissory note, it should be classified as a security in the gross external debt position and included

<sup>3</sup>For practical reasons, the maturity date of the debt instrument may be used as a proxy.

<sup>4</sup>For those economies that do not wish to include interest costs that have accrued but are not yet payable in the gross external debt position for all instruments, the nominal value of outstanding long-term external debt at the reference date that is due to be paid in one year or less is the sum of principal payments on this debt to be made in the coming year, except where the debt is in the form of securities issued at a discount, in which instance the principal amount to be paid will exceed the nominal amount outstanding at the reference date.

<sup>5</sup>Some countries that have debt primarily in the form of instruments on which principal is paid only at maturity attribute the full value of each long-term (original maturity) debt instrument on a remaining basis by when the instrument is due to mature. However, from the viewpoint of liquidity risk analysis, this method is imperfect, because payments coming due in the near term, such as interest and partial payments of principal, are not captured within short-term remaining-maturity debt if the debt instrument has a maturity date further than a year ahead.

in the concept of trade-related credit. In principle, a supplier may also sell trade claims other than trade bills to a factoring company, in which instance the claim is reclassified from trade credit and advances to other debt liabilities (other accounts payable—other) in the gross external debt position and is included in the concept of trade-related credit.

**6.11** If the importer's bill has been endorsed (or "accepted") by a bank in the importer's own economy in order to make the bill acceptable to the exporter, it is known as a bankers' acceptance, classified as a security in the gross external debt position, and included in the concept of trade-related credit. Bankers' acceptances are to be classified as a financial

### Box 6.1 Trade-Related Credit

In analyzing activity in international trade in goods and services, information on trade-related credit is essential. Past evidence has demonstrated that trade patterns can be severely disrupted by changes in the provision of trade-related credits. Assessment of conditions of trade finance is complicated by the absence of organized markets and the proprietary nature of customer relationships. Against this background, the IMF has launched a trade finance survey covering major banking institutions.

**Trade finance:** Trade finance covers a spectrum of payment arrangements between importers and exporters: *Open-account financing* allows importers to repay exporters directly after receipt of goods; *bank-intermediated trade finance* allows importers or exporters to shift some of the nonpayment or nonperformance risk to banks (e.g., by issuing or confirming the letter of credit) or to obtain bank financing to allow the exporter to receive payment before the importer is required to make it; and *cash-in-advance arrangements* are where importers pay for goods before they are shipped. Members of Berne Union (BU), such as export credit agencies and private export credit insurers, also participate in trade finance markets in a manner similar to commercial banks. Multilateral development bank programs also play a role by providing a secondary guarantee or liquidity to banks. *Trade credit and advances* in the *Guide* and in *BPM6* refers to open-account financing and cash-in-advance arrangements. Trade-related lending by banks is included under loans and other off-balance-sheet items that do not give rise to financial assets (e.g., letters of credit; see *BPM6*, paragraphs 5.9 and 5.13).

Trade Finance Arrangements				
Cash in Advance 19%–22% \$3–\$3.5 trillion	Bank Trade Finance 35%–40% \$5.5–\$6.4 trillion	Open Account (38%–45%, \$6–\$7.2 trillion)		
		Credit Covered by BU members \$1.25–\$1.5 trillion	Arm's-Length Non-Guaranteed	Intra-Firm

\$15.9 trillion in global merchandise trade (2008 IMF estimate)  
Source: IMF staff estimates, IMF-BAFT surveys of commercial banks, and BU data.

### Basic Information on Trade Finance Survey

Surveys	Period Through	Respondents (number)	Countries (number)
1	Dec–08	40	n.a.
2	Mar–09	44	23
3	Jul–09	88	44
4	Mar–10	93	53
5	Dec–10	118	34
6	Aug–11	63	n.a.
7	Dec–11	337	91

**Survey design:** The design of the initial survey benefited from inputs from the European Bank for Reconstruction and Development (EBRD) and Hong Kong and Shanghai Banking Corporation (HSBC). The second survey benefited from inputs from a cosponsor, the Bankers' Association for Finance and Trade, now merged with International Financial Services Association (BAFT-IFSA). The third survey benefited from inputs from the Banking Commission of the International Chamber of Commerce (ICC), which has been building an expertise by conducting its own survey, ICC Global Survey on Trade Finance, annually since 2009. The design of the fifth survey benefited from the IMF survey experts in the Technology and General Services Department. The seventh survey, a collaboration with ICC, ICC-IMF Market Snapshot January 2012, was made substantially shorter, both in length and during in the field, to swiftly assess the rapidly changing market sentiment of the last quarter of 2011.

**Box 6.1 Trade-Related Credit (Concluded)**

**Implementation:** The surveys were distributed primarily to membership of BAFT-IFSA, the Latin American Federation of Banks (FELEBAN), ICC, and others that international financial institutions and private entities were able to reach out to. In particular, the EBRD, the Asian Development Bank, the Inter-American Development Bank, the African Development Bank (AfDB), and the International Finance Corporation provided valuable assistance in distributing surveys to relevant financial institutions. The number of respondents varied significantly, depending on the methods used to collect the data and to reach out to respondents, as well as the length and complexity of the surveys.

**Content:** In each of the surveys, except for the seventh survey, banks were asked (1) to compare the state of their trade finance business across different time periods, including volumes, prices, and relative default probabilities; (2) to assess the impact of banking regulatory changes (in particular Basel II and III); and (3) to share their expectations about likely near-term industry developments (as with many such surveys, there is the risk of bias coming from self-selection). The results of the first four surveys are discussed in Trade and Trade Finance in the 2008–09 Financial Crisis (IMF working paper WP/11/16).

liability of the bank (or, if not a bank, the financial institution that has endorsed the bill) because they represent an unconditional claim on the part of the holder and an unconditional claim on the bank. However, national practices and variations in the nature of these acceptances may suggest flexibility in the application of this guideline.

## Specific Characteristics of External Debt

### Currency Composition

**6.12** Domestic currency is that which is legal tender in the economy and issued by the monetary authority for that economy or for the common currency area to which the economy belongs.<sup>6</sup> All other currencies are foreign currencies. Under this definition, an economy that uses as its legal tender a currency issued by a monetary authority of another economy—such as U.S. dollars—or of a common currency area to which it does not belong should classify the currency as a foreign currency, although domestic transactions are settled in this currency. SDRs are considered to be foreign currency in all cases, including for the economies that issue the currencies included in the SDR basket.

**6.13** The attribution of external debt by currency is primarily determined by the currency of denomination.<sup>7</sup> Foreign currency debt is defined as debt in which the value of flows and positions is fixed in a currency other than the domestic currency. Accordingly, all cash flows are determined using the currency

of denomination and, if necessary, converted into the domestic currency or another unit of account for the purpose of settlement or compilation of accounts. Foreign-currency-linked debt is debt that is settled in domestic currency but with the amounts to be paid linked to a foreign currency. Foreign-currency-linked debt is classified and treated in the international accounts as being denominated in foreign currency. Domestic currency debt is debt that is payable in the domestic currency and not linked to a foreign currency. Domestic-currency-linked debt is debt that is settled in a foreign currency but with the amounts paid linked to the domestic currency. By convention, domestic-currency-linked debt is included with foreign currency debt in this *Guide*. In the unusual instance of interest payments being denominated in a foreign currency but principal payments denominated in a domestic currency, or vice versa, only the present value of the payments denominated in a foreign currency need be classified as foreign currency debt (and similarly for foreign-currency-linked debt). Unallocated gold accounts and other unallocated accounts in other precious metals giving title to claim the delivery of gold or other precious metals are treated as debt denominated in foreign currency.

**6.14** In attributing external debt by type of foreign currency—U.S. dollar, euro, Japanese yen, and so on—

<sup>6</sup>In this context, a common currency area is one to which more than one economy belongs and which has a central bank with the legal authority to issue the same currency within the common currency area. To belong to this area, the economy must be a member of the central bank.

<sup>7</sup>The currency of denomination is determined by the currency in which the value of flows and positions is fixed as specified in the contract or other agreement between the parties; it is important for distinguishing transaction values and holdings gains and losses. The currency of settlement may be different from the currency of denomination. Using a currency in settlement that is different from the currency of denomination simply means that a currency conversion is involved each time a settlement occurs (*BPM6*, paragraphs 3.98–3.103).

the currency in which payments are denominated is the determining criterion. Some types of foreign currency borrowing are denominated in more than one currency. However, if the amounts to be paid on such borrowing are linked to one specific currency, the borrowing should be attributed to that currency. Otherwise, compilers are encouraged to disaggregate such multicurrency borrowing by the component currencies. If, for any reason at the time the data are compiled for a particular reference date, the amounts attributable to each currency at that date are not known with precision, the borrowing should be attributed to each type of currency using the latest firm information available to the compiler—such as the currency attribution at the previous reference date together with any known payments in specific currencies made during the subsequent period—and revised once firm information for the new reference date is known.

## Interest Rates

### *Variable- and fixed-rate external debt*

**6.15** Variable-rate external debt instruments are those on which interest costs are linked to a reference index, e.g., LIBOR (London interbank offered rate), or the price of a specific commodity, or the price of a specific financial instrument that normally changes over time in a continuous manner in response to market pressures. All other debt instruments should be classified as fixed-rate. Interest on external debt that is linked to the credit rating of another borrower should be classified as fixed-rate because credit ratings do not change in a continuous manner in response to market pressures; interest on external debt that is linked to a reference price index should be classified as variable-rate, provided the price(s) that are the basis for the reference index are primarily market determined.

**6.16** The classification of an instrument can change over time if, say, it switches from fixed to variable rate. For instance, interest may be fixed for a certain number of years and then becomes variable. While a fixed rate is paid, the instrument is to be classified as fixed-rate debt, and when it switches to variable rate, it is classified as variable-rate debt.<sup>8</sup> If interest is linked

to a reference index or commodity price or financial instrument price but is fixed unless the reference index or price passes a particular threshold, it should be regarded as fixed-rate. However, if thereafter interest becomes variable, then it should be reclassified as a variable-rate instrument. Alternatively, if interest is variable-rate until it reaches a predetermined ceiling or floor, it becomes fixed-rate debt when it reaches that ceiling or floor.

**6.17** Index-linked debt instruments are classified as being variable-rate.<sup>9</sup> For these instruments, the principal or coupons or both are indexed to some variable, e.g., to a general or specific price index. Because index-linked instruments have variable aspects, a debt instrument is classified as variable-rate if the indexation applies to the principal or coupons or both (notwithstanding the treatment of interest<sup>10</sup>). Therefore, if principal only is indexed, such debt is to be classified as variable-rate regardless of whether interest is fixed or variable provided that the reference index meets the criterion above, i.e., it normally changes over time in a continuous manner in response to market pressures.

### *Average interest rates*

**6.18** The average interest rate is the weighted-average level of interest rates on the outstanding gross external debt as at the reference date. The weights to be used are determined by the value in the unit of account of each borrowing as a percentage of the total, e.g., for the general government sector, the weight given to the interest rate on each external debt instrument equals the value in the unit of account of that debt as a percentage of total external debt for the general government sector. Similarly, the weight given to the average level of interest rates for the general government sector when calculating the average interest rate for the whole economy is equal to the total value in the unit of account of general government external debt as a percentage of total economy-wide external debt.

**6.19** The relevant interest rate level for each debt instrument is affected by whether it has a fixed- or

<sup>8</sup> For vulnerability analysis purposes, it is common practice to treat instruments that switch from fixed to variable rate as variable-rate debt. For debt whose interest can switch from fixed to variable rate, compilers could provide additional information in notes to the corresponding classification tables, where significant.

<sup>9</sup> Nevertheless, foreign-currency-linked instruments are treated as being denominated in the foreign currency (see paragraph 6.13), rather than indexed to it.

<sup>10</sup> Two approaches that can be followed to determine the interest accrual in each accounting period when the amount to be paid at maturity is index-linked are discussed in *BPM6*, paragraphs 11.59–11.65.

variable-linked interest rate. If the interest rate is contractually fixed, then this rate should be used, taking account of any discount and premium at issuance. If the rate of interest had been variable in the past but is now fixed, the current fixed-rate should be used. For variable-rate instruments, the rate of interest on each instrument should be the rate accruing on the reference day. In other words, usually variable rates of interest are reset on a periodic basis, and it is the level of the interest rate applicable on the reference day that should be used. If the interest rate is reset on the reference date, that rate should be reported and not the previous interest rate. If for any reason the variable rate is not observable, then the level of the reference index or appropriate price on the reference date, or, if the link is to a change in the reference index, the recorded change for the relevant period up to the reference date, or the closest relevant time period available, together with any existing additional margin the borrower needs to pay, should be used to calculate the interest rate level.

**6.20** For calculating the weighted average of interest rates agreed on new borrowing during the period, the interest rates recorded would be those established at the time of the borrowing. If the interest rate is contractually fixed, then this rate should be used. For variable-rate borrowing, the rate of interest on each instrument should be that which is accruing on the day the claim is established. The weights to be used in compiling average interest rate data are determined by the value in the unit of account of each borrowing, on the date the claim was established, as a percentage of the total borrowed during the period.

### Location of Securities Issuance

**6.21** Debt securities issued by a resident of the same economy in which the security is issued are to be classified as domestically issued, regardless of the currency of issue. All other issues are to be classified as internationally issued. Regardless of location of issue, any security owned by nonresidents and issued by residents of a given economy is to be classified as part of the external debt of that economy. If there is uncertainty over the location of issue, then the following criteria should be taken into account in descending order of preference to determine whether a resident of the economy has issued a domestic or an international debt security:

- The debt security is listed on a recognized exchange in the domestic economy (domestic issue) or in a foreign economy (international security)
- The debt security has an International Security Identification Number (ISIN) with a country code the same as the legal domicile of the issuer and/or is allocated a domestic security code by the domestic national numbering agency (domestic security); or the debt security has an ISIN code with a country code different from that where the issuer is legally domiciled and/or has a foreign security code issued by a foreign national numbering agency (international security)
- The security is issued in a domestic currency (domestic issue), as defined in paragraph 6.12, or in a foreign currency (international issue)

### Concessional Debt

**6.22** There is no unique definition of concessionality, and the *Guide* does not provide or recommend one. Nevertheless, it is generally accepted that concessional loans occur when units lend to other units at a contractual interest rate intentionally set below the market interest rate that would otherwise apply. Concessionality does not only relate to interest rates below market but to the whole package of concessional terms to the borrowing unit, including maturity and subsidies from third parties. The degree of concessionality can be enhanced with grace periods and frequencies of payments and maturity periods favorable to the debtor. The definition of the OECD's Development Assistance Committee (DAC)<sup>11</sup> is commonly used. Under the DAC definition, concessional lending (i.e., lending extended on terms that are substantially more generous than market terms) includes (1) official credits with an original grant element of 25 percent or more using a 10 percent rate of discount (i.e., where the excess of the face value of a loan from the official sector over the sum of the discounted future debt-service payments to be made by the debtor is 25 percent or more using a 10 percent rate of discount), and (2) lending by the soft window of the World Bank, major regional development banks, and the IMF.

<sup>11</sup> The OECD's DAC was created in 1960. Its membership at the time of writing the *Guide* comprised 24 countries and the Commission of the European Union.

**6.23** The IMF uses a methodology for calculating loan concessionality in which the discount rates used are computed in a manner that is closely aligned with the methodology employed in the OECD's Arrangement on Officially Supported Export Credits. Specifically, a debt is concessional if it includes a grant element of at least 35 percent (or more in certain cases), calculated as follows: the grant element of a debt is the difference between the present value of debt and its nominal value, expressed as a percentage of the nominal value of the debt. The present value of debt at the time of its contracting is calculated by discounting the future stream of payments of debt service due on this debt. The discount rates used for this purpose are the currency-specific commercial interest reference rates (CIRRs), published by the OECD.

**6.24** All external debt not classified as concessional should be classified as nonconcessional.

### Debt-Service and Other Payment Schedules

**6.25** A payment schedule provides a projection of future payments, at a reference date, based on a certain set of assumptions that are likely to change over time. A debt-service payment schedule projects payments on the outstanding gross external debt position at the reference date and helps in the assessment of liquidity risk by allowing the data user, and debtor, to monitor whether a bunching of payments is developing regardless of the original maturity of the debt instrument. For the debtor, early warning of such bunching might allow countervailing action to be taken. However, the availability of detailed information on the characteristics of the debt instrument is crucial; in practice, the availability of the necessary information will depend on the level of details of the data sources used by the compiler.

**6.26** Because the projection of a payment schedule requires assumptions to be made, to assist compilers, some guidance is provided below on the assumptions to apply. In compiling payment schedules, the *Guide* encourages the compiler to make best efforts in projecting payments. Consistent with the definitions in paragraph 2.5, in the debt-service payment schedule, interest payments are periodic payments of interest

costs, while principal payments are all other payments that reduce the principal amount outstanding.<sup>12</sup>

### Projected Payments of Foreign Currency External Debt

**6.27** External debt payments may be required in a currency different from the unit of account used for presenting data in the debt-service payment schedule. For such external debt payments, projected payments should be converted to the unit of account using the market exchange rate (i.e., the midpoint between the buying and the selling spot rates) prevailing on the reference date (i.e., the last day before the start of the forward-looking period). In other words, if a debt-service payment schedule is drawn up for external debt outstanding on an end-calendar-year reference date, then the exchange rate prevailing at the end of the calendar year (on the last day of that year) should be used.<sup>13</sup> Some compilers may find it useful to prepare supplementary projected payments to take into account fluctuations in exchange and interest rates, where relevant.

**6.28** For borrowing in multicurrencies, payments should be projected with reference to the component currencies of the borrowing and to the market exchange rates (the midpoint between the buying and the selling spot rates) prevailing on the reference date. For World Bank currency pool loans, future payments should be projected in U.S. dollar equivalent terms on the basis of the pool units to be "paid" on each due date and the pool unit value at the reference date, and

<sup>12</sup>Guidance on the recording of the SDR allocations in debt-service payment schedule tables is provided in paragraph 7.16.

<sup>13</sup>From a theoretical viewpoint, and given that the debt-service payment schedule is making projections, forward rates may be considered the best estimate of exchange rates for specific dates in the future. However, while such an approach might well be readily applied in many instances for shorter-term debt in major currencies, there may be a lack of readily observable forward rates for longer-term borrowing and for "smaller" currencies, thus leading to possible inconsistent approaches between economies and different maturity periods. Also, there always remains uncertainty about the future course of interest and currency rates. The *Guide* takes the view that projections of future payments of external debt linked to currency and interest rate movements should be based on end-period spot rates, rather than, say, forward rates, because this approach is more transparent, easier to compile, and more readily understandable to users than projections based on rates in forward markets—even though it is recognized that the use of a single day's exchange rate to convert payments to be made over a forward period could be misleading if temporary factors affect the exchange rate for that day.

then converted into the unit of account, if this is not the U.S. dollar,<sup>14</sup> at the market exchange rate (the midpoint between the buying and the selling spot rates) prevailing on the reference date.

### Receiving or Paying Foreign Currency Under a Financial Derivatives Contract

**6.29** Consistent with the foreign-currency-conversion approach adopted throughout the *Guide*, the amounts of foreign currency contracted to be paid and received under a financial derivatives contract that is current and outstanding at the reference date should be converted to the unit of account using the market exchange rate (the midpoint between the buying and the selling spot rates) prevailing on the reference date (the last day before the start of the forward-looking period).

### Projected Interest Payments on Deposits

**6.30** Interest on deposits that is payable once a year or more frequently is projected as a future interest payment. Interest payments on deposits should be projected on the basis of those deposits that are outstanding on the reference date, using interest rates current on the reference date, unless there are contractual reasons to assume otherwise.

**6.31** Interest on deposits that are withdrawable on demand or subject to a notice of withdrawal, and are not subject to a maturity date, should be projected into the future,<sup>15</sup> whereas those interest payments on deposits with a maturity date should be projected only to that maturity date. Payments on deposits for which notice of withdrawal has been given should be projected on the assumption that these deposits will be withdrawn on the due date, and no assumption of reinvestment should be made unless there are explicit instructions from the depositor that indicate otherwise.

<sup>14</sup> Currency pool loans are loans that are committed in U.S. dollar equivalent terms and converted into pool units, the base unit the borrower owes, through a conversion rate—pool unit value—that is calculated on the basis of the relationship between the U.S. dollar and the component currencies in the pool. When pool units are to be repaid, they are converted back into the dollar-equivalent amount using the prevailing pool unit value. Currency pool loans are described in more detail in Appendix 1, Part 1.

<sup>15</sup> In principle, the future could be indefinite, but compilers are encouraged to make some commonsense assumptions about the average maturity of deposits with no stated maturity.

### Projected Payments of Index-Linked External Debt, Including Variable-Rate Interest

**6.32** Interest and principal payments on external debt may be linked to a reference index that changes over time—for instance, a variable reference interest rate index, a commodity price, or another specified price index. For such payments, projected payments should be estimated using the level of the reference index on the last day before the start of the forward-looking period, or if the link is to a change in the reference index, the recorded change for the relevant period up to the last day before the start of the forward-looking period, or the closest relevant time period available.<sup>16</sup> If the margin over the reference index is subject to change, then the margin on the last day before the start of the forward-looking period should be used. For debt payable in commodities or other goods, future payments are valued using the market price of a commodity or good as at the reference date, with the split between principal and interest payments based on the implicit interest rate at inception (see paragraph 2.95).

### Projected Payments on Loans Not Fully Disbursed

**6.33** No payments should be projected for loans that are not yet disbursed. If loans have been partially disbursed, payments should be projected only for those funds that have been disbursed. If the payment schedule in the loan contract is based on the assumption that all funds are disbursed but only partial disbursement has occurred by the reference date, then, in the absence of any other information that clearly specifies the payment schedule arising from funds that have been disbursed, it is recommended that the payment schedule in the loan contract should be prorated by the percentage of the loan that has been disbursed, e.g., if half of the loan has been disbursed, then half of each payment in the loan schedule should be reported in the debt-service schedule.<sup>17</sup>

<sup>16</sup> As in the case of projected payments of foreign currency external debt, the *Guide* takes the view that projections of future payments of index-linked external debt should be based on end-period spot reference indexes, rather than, say, forward reference indexes (see footnote 13).

<sup>17</sup> For prudent debt-management purposes, in some national practices, even if only partially disbursed, the full amounts foreseen in the payment schedule of the loan are projected for each period until the external debt outstanding at the reference date is fully repaid. Under this “truncated” approach, if half the amount is disbursed on the reference date, the loan is “repaid” in half the time that is expected in the loan schedule, thus “front-loading” the debt-service schedule.



### Projected Payments of Service-Related Debts

**6.34** In the *Guide*, if a payment to a nonresident for a service that has been provided is outstanding at the reference date, it is classified as an external debt liability.<sup>18</sup> Given this, any future payments for services-related debt—such as fees, charges, and commissions that have already been provided by the reference date but not yet been paid—are classified as principal payments, within trade credit and advances (unless they are classified as debt liabilities to direct investment enterprises/direct investors/fellow enterprises, in Direct investment: Intercompany lending). Any projection of fees that depend on moving reference amounts, such as undrawn commitments, should be based on the reference amount at the reference date. While not encouraged, it is recognized that national practice might be to classify service charges related to a loan along with interest in the debt-service schedule.<sup>19</sup>

### Projected Payments of External Debt with the Provision for Early Repayment

**6.35** An external debt liability may include a provision that allows the creditor to request early repayment. For instance, the creditor may have an option to redeem the debt early through a put (sell) option. In principle, projected payments can be estimated both without and with reference to this embedded put option. For instance, a ten-year bond with a put option after five years can be assumed at inception to have a repayment date of ten years and payments recorded up until that date. Alternatively, for this bond the earliest possible date for repayment of five years could be assumed, with projected payments finishing at that time. The preference in the *Guide* is to project debt-service payments on the basis of the original maturity (ten years in the example) but to provide additional information on payments based on the earliest repayment date (five years in the example). But it is recognized that national practice may be to estimate projected payments on bonds with embed-

ded put options only until the option date (five years in the example), with additional information on the projected payments on the bond up until the original maturity date (ten years in the example).<sup>20</sup>

### Projected Payments of Credit-Linked External Debt

**6.36** Payments of interest and/or principal may be linked to the credit rating of another borrower(s), such as in a credit-linked note. In these instances, the credit rating of the other borrower(s) on the last day before the start of the forward-looking period should be used to project payments.

### Projected Payments Arising from Reverse Transactions

**6.37** Under the recording approach for reverse transactions—the collateralized loan approach—a security provider records a loan liability when cash funds are involved. In the debt-service payment schedule, the security provider records the full amount of the loan to be paid at maturity under principal. If the reverse transaction has an “open” maturity,<sup>21</sup> the loan should be recorded as on-demand, under the immediate time category in the presentation of the debt-service payment schedule, unless there is clear evidence to suggest otherwise.

### Projected Payments on Financial Leases

**6.38** Projected payments on financial leases must be divided into interest and principal payments. The amount of interest payments can be calculated using the implicit rate of interest on the loan, with all other payments recorded as principal payments. Conceptually, at inception, the implicit rate of interest on the loan is that which equates the market value of the good provided at the time of lease initiation—the value of the loan—with the discounted value of future payments in rentals over the life of the lease, including any residual value of the good to be returned (or purchased) at the maturity of the lease.

<sup>18</sup>The provision of services should be recorded on an accrual basis in each accounting period (i.e., services should be recorded as they are rendered, not when payments are made—see *BPM6*, paragraph 3.47). When a service is rendered, a debt liability is created and exists until payment is made (see paragraph 2.27).

<sup>19</sup>The *Guide* recommends that financial intermediation services indirectly measured (FISIM) when applicable are to be included with interest in the debt-service payment schedule.

<sup>20</sup>The debtor might have an option to call (buy back) external debt early, which would also result in a drain on liquidity. But unlike the put option for the creditor, this drain is unlikely to be exercised except at a convenient time for the debtor. Consequently, in assessing vulnerability, information on external debt containing put options is more significant.

<sup>21</sup>“Open” maturity is where both parties agree daily to renew or terminate the agreement. Such an arrangement avoids settlement costs if both parties wish to renew the reverse transaction on a continuing basis.