CHAPTER

10 Work of International Agencies

This chapter outlines the acitivies of international agencies that are involved with various aspects of public sector debt, such as data compilation and dissemination, debt mangement and reporting, methodological guidance, and technical assistance and training.

A. Introduction

10.1 The following international agencies are involved in public sector debt statistics:

- Bank for International Settlements (BIS);
- Commonwealth Secretariat (ComSec);
- European Central Bank (ECB);
- Eurostat;
- International Monetary Fund (IMF);
- Organization for Economic Cooperation and Development (OECD);
- Paris Club Secretariat;
- United Nations Conference on Trade and Development (UNCTAD); and
- the World Bank.

10.2 The information in this chapter is supplied by the agencies concerned. Some of their activities include publication of statistics on public sector debt, or some components thereof. Other activities include statistical standards, technical assistance and training, and debt management.

10.3 The annex to this chapter provides details of the ComSec debt recording system and the debt management and financial analysis system (DMFAS) of UNCTAD.

B. Bank for International Settlements (BIS)

10.4 The BIS produces two main sets of data of interest in this area: the International Banking Statistics (IBS) and the International Securities Statistics. These data are available on the BIS Web site[1] and published quarterly in the BIS publication, *Quarterly Review*. These two datasets are not collected with the primary aim of measuring public sector debt. However, as counterparty (creditor) and market data they may be useful to help monitor and proxy debt during periods when more comprehensive national data are not available or delayed.

1. BIS International Banking Statistics

10.5 The *Consolidated Banking Statistics* ("immediate borrower" [IB] basis), introduced in the wake of the Latin American debt crisis in the early 1980s and therefore explicitly designed to measure credit risk, are reported by the country of origin, or nationality, of creditor banks. The underlying principle is the worldwide consolidation of banks' outstanding "international" claims (cross-border claims and local claims in foreign currency) on "immediate borrowers" in three sectors in each country, namely banks, **public sector**, and nonbank private sector, plus unallocated.[2] In the BIS definition, the public sector comprises general governments, central banks, and multilateral development banks. Publicly owned companies are allocated to the nonbank private sector on account of the greater similarity in credit risk.

[1] See http://www.bis.org/statistics/index.htm.

[2] At the time of drafting this *Guide*, an expansion of the sectoral breakdown (for example, to identify separately nonbank financial institutions) is under consideration at the BIS CGFS (Committee on the Global Financial System).

10.6 Creditors are identified according to the home country of the head office in the consolidated statistics. The data are based on supervisory reporting, and their main objective is to measure the credit risk exposure of reporting institutions. Consolidation implies that the country exposure of individual reporting institutions covers that of their affiliates in all countries, including in the debtor country itself. As part of the process of consolidation, positions between the related offices of the same banking groups (intra-bank positions) are excluded. Local bank offices' claims in the debtor country denominated in local currency are also reported separately. The sum of these claims and of the international claims constitutes the "foreign" claims.

10.7 The consolidated statistics (IB basis) provide insight into some other important categories of countries' debt. Although these categories are not reported with a sectoral breakdown, they provide additional information for debt sustainability analysis for a country as a whole and its public sector. For example, short-term debt to banks with a **remaining maturity** of up to one year is reported separately.

10.8 As from end-June 1999, the reporting system added reporting of claims on an "ultimate risk" (UR) basis. For this, the IB claims are reallocated to the country of domicile of the guarantor, that is, the head office of the borrowing entity itself (for branches) or the entity providing an explicit (legally binding) guarantee, resulting in "ultimate risk" data. Also included, in principle, under such guarantees is collateral that is liquid and available in a country other than that of the borrower; for example, if the collateral provided is issued by a resident of the United States, then the ultimate risk data reallocates the claim to the United States from the country of residence of the provider of the collateral. Claims guaranteed by the public sector are reclassified to this sector in the UR data. The "ultimate risk" sectoral data are based on "foreign" claims, that is, the totality of cross-border and local claims in all currencies, including the local currency of the debtor country. Due to acquisition of local banks by foreign banks, local claims are substantial in many countries; they may be funded mainly from local deposit liabilities. Certain potential claims, such as guarantees extended, undisbursed credit commitments, and the positive market value of derivatives claims related to the country, are also reported separately in the UR data set.

10.9 The data on exposures to ultimate counterparties provide a useful complement to those on exposures to immediate counterparties for the purpose of evaluating country and sector risk. Indeed, in view of the difficulty of measuring where the final risk lies and of the significance of borderline cases, the Basel Committee on Banking Supervision has recommended that banks calculate their country exposure on both bases (dual exposure measurement). The ultimate risk exposure tends to provide a better measure of the ability of creditors to recoup their claims.

10.10 A second set of BIS banking statistics, the *Locational Banking Statistics*, provides time series back to the 1970s. The main characteristic of this data-set is that reporting bank offices are grouped not by the nationality of their head office, but by their country of residence. Since the data (cross-border claims and liabilities by residence of counterparty) are broken down only into claims on banks and on nonbanks, they do not provide direct information on banks' lending to the public sector. They do, however, provide important additional detail on the total external debt of a given country, such as the currency composition and instrument composition of external debt to banks.

10.11 Firstly, the locational data provide the authorities with a broad picture of the currency and instrument composition (i.e., loans, debt securities, and other) of total external debt to banks, which can be important for debt sustainability analysis both for the country as a whole and, in particular, the public sector. Secondly, because much care is taken to ensure the broad consistency and comparability of the locational and the consolidated data sets, the currency detail of the locational data can be used to gain an understanding of the impact of exchange rate movements on consolidated banking claims, which are reported without a currency breakdown. Thirdly, because the locational data are consistent with the International Investment Position (IIP) framework (classifying both creditors and debtors by their country of residence), the locational statistics permit a statistical reconciliation on a country-by-country basis.

2. BIS International Debt Securities Statistics

10.12 The BIS International Debt Securities Statistics[3] are derived from a security-by-security database

[3] The BIS also collects data on domestic debt securities issuance, with a breakdown for government. Since these data are based on national data, they do not in principle add independent information content beyond that already provided by the national (debtor) statistics. Since the data are standardized as far as possible across

containing all international debt securities[4] issued since the inception of these transactions in the 1960s, which are obtained from a number of commercial and institutional sources. Each individual issuer of securities is assigned two country codes. One is location, determined by the residence of the issuer. The second field is nationality, corresponding to the country of residence of the head office or owner of the issuing entity. Thus, international debt securities data are available on both a residence and a nationality basis.

10.13 Aggregate data are published quarterly: amounts outstanding at end-quarter, announced new issues and net new issues (corresponding to the difference between completed issues and redemptions). The BIS publishes data on the government sector, which comprises central governments, other governments, and central banks. Given that the BIS database stores a great amount of detail on each individual security, very detailed breakdowns for the public sector can be produced by adding, for example, public financial and nonfinancial corporations to the government sector.

10.14 When aggregating the international banking and securities statistics for the purpose of measuring public sector debt, it should be noted that the consolidated banking (creditor) data vis-à-vis the public sector include banks' holdings of an unknown volume of securities issued on international and local markets. As a result, the actual size of the overlap between the international banking and securities (market) data vis-à-vis the public sector cannot be fully ascertained.

C. The Commonwealth Secretariat

1. Overview

10.15 The Commonwealth Secretariat[5] is the main intergovernmental agency of the Commonwealth, a voluntary association of 54 countries, and is based in London, U.K. Following the 1980s debt crisis, the Secretariat was given a mandate by the Commonwealth Finance Ministers to assist its member countries in maintaining sustainable levels of debt. Consequently, the debt management program was established to meet this objective, starting with the development of specialist software (the Commonwealth Secretariat Debt Recording and Management System, CS-DRMS) to enable countries to record and manage their debt.

10.16 The debt management program has since evolved to meet the changing needs of member countries and now includes:

- Provision of the Commonwealth Secretariat Debt Management Software Suite and training in its use;
- Advisory support on debt management legislation, policies, strategies, and institutional aspects;
- Capacity building in all areas of public sector debt management.

10.17 These activities are provided free of charge to Commonwealth member countries and are implemented by the Debt Management Section (DMS) within the Secretariat's Special Advisory Services Division.

2. Provision of debt management system

10.18 CS-DRMS[6] was first developed and installed for use by Sri Lanka, a member country, in 1985. CS-DRMS initially enabled countries to record and manage external debt, which was the priority at that time. The capability to record and manage domestic debt was introduced later, following the increasing trend in domestic borrowing by many developing countries starting from the late 1980s. The system now allows countries to maintain a comprehensive database of all government borrowing and guarantees, as well as carry out analysis. It is enhanced constantly to keep up with technology, developments in debt management, and to meet the changing needs of client countries and creditor practices.

10.19 CS-DRMS is provided free of charge to Commonwealth member countries[7] and, in 2011, was deployed in 60 countries, including 15 outside of the Commonwealth. The system is used for managing sovereign debt, subnational debt, government lending, guarantees, and private sector debt. Training and user support is also provided by the Secretariat to ensure that the system is used effectively to support debt management operations and meet reporting requirements.

countries, they can however serve as a convenient one-stop source for cross-country comparative studies.

[4]International debt securities cover bonds and notes (long-term issues) and money market instruments (short-tem issues) placed in international markets.

[5]See http://www.thecommonwealth.org.

[6]See http://www.csdrms.org.

[7]CS-DRMS can be purchased by non-Commonwealth countries through Crown Agents, who hold a nonexclusive distributor agreement with the Secretariat (http://www.crownagents.com).

10.20 In addition to CS-DRMS, the Secretariat has developed complementary software products for its member countries. The Commonwealth Secretariat Securities Auction System (CS-SAS) assists countries in managing the auction of government securities, whilst the Commonwealth Secretariat Public Debt Analytical Tool[8] (CS-PDAT) is a decision support system for assisting debt managers to develop and assess alternative borrowing strategies within a cost-risk framework. The tool also enables debt mangers to implement their desired strategy through the integration of cash and debt management, development of an annual borrowing plan including an issuance calendar, and liability management operations such as buybacks, exchanges, restructuring, embedded options, and swaps.

3. Advisory services

10.21 In response to requests from its member countries, the Commonwealth Secretariat provides advice on a range of public debt management related issues. This includes advice on institutional arrangements and the legal framework for public debt management, setting up a debt office, strengthening middle office capacity in debt management, support in developing debt management strategies, and advice on developing the domestic debt market. In addition, a significant component of the advisory services includes the development and validation of a public debt database in CS-DRMS. Recently, the Secretariat initiated assistance to countries in developing a debt bulletin for internal analysis and public dissemination. The main objective of all the advisory services is to support reforms in debt management in any member country for promoting sound debt management practices.

10.22 After extensive consultation with various stakeholders in public debt management within a country, a diagnostic report setting out the key recommendations on any specific area for public debt management reforms is developed and submitted to the country authorities for implementation. Where countries need further support in the implementation of various reforms, a follow-up advisory mission visits a country to formulate a detailed plan of action for implementation of such reforms.

10.23 As part of its advisory services, the Secretariat routinely assesses the needs of its member countries and develops joint programs of support after factoring in support from other developmental partners. This allows more coherent and sequenced activities to improve debt management practices. Finally, the progress of a country on any particular reform is monitored periodically and follow-up advice is provided to assist countries in moving forward.

4. Capacity building

10.24 Building capacity in public debt management is a priority for the Secretariat. The main purpose of capacity building support is to ensure sustainable debt management capacity in member countries. While the advisory services are based on a top-down approach, the capacity building activities are based on a bottom-up approach, which enhances the prospect of successful debt management reforms. To ensure capacity building is appropriately targeted and relevant, the Secretariat works with its member countries to agree the scope and timing of capacity building activities to meet their own specific needs.

10.25 In addition to CS-DRMS user training, the Secretariat provides training in a wide range of debt management activities for government and central bank officials from the Commonwealth. These courses are often conducted in collaboration with international organizations, such as the World Bank and IMF, and regional organizations. In addition, the Secretariat provides a mentoring program, on-the-job coaching, peer-to-peer learning, and e-learning programs on debt data compilation and reporting in CS-DRMS.[9]

10.26 A substantial component of the capacity building program is based on providing debt managers with hands-on training on various aspects of debt analysis including loan negotiation, debt sustainability analysis, debt management strategy formulation in a cost-risk framework, and fixed income securities. Training on other debt management topics, such as institutional arrangements, risk management, and development of domestic debt market are also provided as part of the capacity building program.

10.27 The Secretariat has also placed debt management advisers in different regions to provide country-specific advice and support. Between 2005 and 2008, they focused on building capacity in debt data compilation and reporting using CS-DRMS. From 2011, the scope of the regional adviser project is expanded to cover debt management policies and strategies, in

[8]CS-PDAT is planned to be released by the end of 2011.

[9]This is done in collaboration with the Commonwealth of Learning (http://www.col.org).

addition to support on debt statistics and the use of CS-DRMS.

10.28 A number of conferences and workshops are also arranged by the Secretariat to deliberate on recent developments and emerging issues in debt management and promote the sharing of best practice in debt management. The Commonwealth Secretariat Debt Management Forum, held every two years, is its flagship event that brings together debt managers and senior government officials from across the Commonwealth countries.

5. Publications

10.29 Through its debt management series of publications, the Secretariat spreads examples of good practices in public debt management and guides countries in their own operations. For example, it has produced publications on domestic debt management, contingent liabilities, market development, and the legal framework for debt management. Guidance on specific areas of debt management is provided in a quarterly newsletter that also raises awareness of the Secretariat's activities within client countries and those of other stakeholders.

6. Partnerships

10.30 In many instances, the Secretariat works alongside other agencies in debt management, particularly the World Bank,[10] IMF, and a number of regional organizations including the Eastern Caribbean Central Bank, the Macroeconomic and Financial Management Institute of eastern and southern Africa (MEFMI), Pole Dette, and the West African Institute for Financial and Economic Management (WAIFEM). It is a member of the Task Force on Finance Statistics and has played a major role in raising the standards of debt data recording and reporting. It also supports the International Organization of Supreme Audit Institutions (INTOSAI) to promote more effective audits of public debt management by ensuring CS-DRMS meets INTOSAI standards.

10.31 Apart from the services it provides to its member countries under the debt management program, the Secretariat is involved in global advocacy on the international financial architecture, including debt relief and financing for development. Its annual Commonwealth Ministerial Debt Sustainability Forum, which is attended by finance ministers and senior government officials from member countries, provides a forum where debt issues common to the Commonwealth are discussed and action is agreed. This activity is implemented by the Economic Affairs Division within the Secretariat.

[10]The Secretariat is an implementing partner of the World Bank-administered Debt Management Facility.

D. European Central Bank (ECB)

1. Background

10.32 To carry out the analysis required for monetary policy, the European Central Bank (ECB) and the European System of Central Banks (ESCB) need comprehensive and reliable government finance statistics. Government finance statistics (GFS) form an important part of the integrated system of sectoral nonfinancial and financial accounts for the euro area. Moreover, the ECB, like the European Commission, prepares periodic "convergence" reports assessing the preparedness of nonparticipating member states to adopt the euro, for which annual data on government deficits and outstanding government debt are important criteria. The ECB also closely follows developments under the European Union's (EU) excessive deficit procedure (EDP) and the Stability and Growth Pact (see also paragraphs 10.56–10.60).

10.33 Data are reported to ECB under the GFS Guideline,[11] which requests data on government revenue and expenditure, government deficit and debt, the relationship between deficit and debt, and transactions between the EU institutions and general government or other resident sectors of the economy. The Guideline also lays down when and how these data should be reported to the ECB. The GFS Guideline defines the requested data by reference to the *European System of Accounts 1995* (*ESA95*)[12] and the EDP.[13]

10.34 Further guidance is provided in the ECB's *Government Finance Statistics Guide*.[14] This guide

[11]The ECB Guideline on GFS (ECB/2009/20) can be found at: http://www.ecb.europa.eu/ecb/legal/1005/96887/html/index.en.html.

[12]Council Regulation (EC) No 2223/96 of 25 June 1996 on the European system of national and regional accounts in the Community, OJ L 310, 30.11.1996, p. 1-469, as amended.

[13]Council Regulation (EC) No 479/2009 of 25 May 2009 on the application of the Protocol on the excessive deficit procedure annexed to the Treaty establishing the European Community (codified version), OJ L 145, 10.6.2009, pp. 1-9.

[14]The *Government Finance Statistics Guide* is available on the ECB Web site at http://www.ecb.int/pub/pdf/other/governmentfinancestatisticsguide201003en.pdf.

intends to complement the GFS Guideline and focuses on the practical aspects in the compilation of the government finance statistics that the National Central Banks (NCBs) report to the ECB. The guide is regularly updated in order to keep up with methodological changes and changes in the reporting tables

2. Methodology

10.35 EU law requires member states to use the *ESA95* in the preparation of the macroeconomic statistics which they send to the European Commission. This ensures that the national data are comparable. The *ESA95* is an integrated system of economic accounts from which many macroeconomic aggregates, such as gross domestic product, are derived. It organizes the statistics on the output of an economy, the generation and distribution of income arising from that output, the accumulation of capital and financial assets and liabilities, and balance sheets.

10.36 The *ESA95* will be updated to be consistent with the *System of National Accounts, 2008 (2008 SNA)*, focusing on circumstances and data needs in the EU.

3. Publication

10.37 The ECB requires two submissions each year of annual GFS data (in April and October), and interim updates and revisions. These data deliveries are used to update Tables 6.1 to 6.3 on the euro area general government fiscal position in the "euro area statistics" section of the ECB's monthly bulletin, as well as Tables 7.1, 7.2, and Tables 11.8 to 11.10 of the ECB's *Statistics Pocket Book*.[15] The April and October data submissions are also used for internal publications such as the *Annual Public Finance Report* and the *Autumn Fiscal Policy Note*, which contain statistics (up to year t-1) and fiscal forecasts (from year t to year t+2).

10.38 The ECB publishes quarterly euro area aggregates of government revenue, expenditure, deficit, debt and the deficit-debt adjustment in Tables 6.4 and 6.5 in the "euro area statistics" section of the ECB's monthly bulletin. The provision of quarterly GFS data is not covered by the GFS Guideline. Eurostat and the member states kindly transmit these quarterly data to the ECB. The quarterly euro area aggregates of the nonfinancial and financial accounts of the general government sector are used as a building-block in the compilation of the integrated euro area accounts.

4. Debt statistics

10.39 Seven categories of financial instruments are distinguished in the *ESA95*. These are classified according to liquidity factors and legal characteristics. They are listed below, with their *ESA95* codes for financial balance sheet data:

- Monetary gold and special drawing rights (AF.1);
- Currency and deposits (AF.2);
- Securities other than shares (AF.3);
- Loans (AF.4);
- Shares and other equity (AF.5);
- Insurance technical reserves (AF.6); and
- Other accounts receivable/payable (AF.7).

10.40 In ECB publications the concept of "EDP" or "Maastricht debt" is often used.[16] Definitions and further information on the concept of EDP debt can be found in the annex to Chapter 5 of this *Guide*.

10.41 The GFS Guideline does not only request information on financial instruments and original maturity, but also on holders of the instruments, currency denomination, and residual maturity.

5. Deficit-debt adjustment

10.42 The GFS Guideline includes data on the relationship between the deficit and the Maastricht debt. Although government deficit and debt are closely interrelated concepts, the change in the debt level in any given year can be larger or smaller than the deficit. The difference between the change in debt and the deficit is known as the "deficit-debt adjustment" (DDA) or, more generally, as the "stock-flow adjustment" (SFA). The DDA measures the part of the change in debt that is not accounted for by the deficit/surplus (D9). As long as the components of the DDA are sound, the difference between the change in debt and the deficit is explained and does not raise concerns regarding data quality. A positive DDA means that the increase in debt exceeds

[15] The *Statistics Pocket book* is available on the ECB's Web site at http://www.ecb.europa.eu.

[16] "Maastricht debt" or "EDP debt" is defined in the Protocol on the excessive deficit procedure (EDP) annexed to the Maastricht Treaty and in Article 1 (5) of Council Regulation (EC) No 479/2009 as the total general government gross debt at face value outstanding at the end of the year.

the deficit or that the reduction of debt is lower than the surplus. A negative DDA means that the decrease in debt is larger than the surplus or that the debt has decreased despite a deficit.

10.43 The DDA can be divided into three main pillars:

- Pillar A – Transactions in main financial assets;
- Pillar B – Time of recording and other differences; and
- Pillar C – Valuation effects and other changes in the volume of debt.

10.44 Pillar A—transactions in main financial assets—comprises, for example, transactions in deposits held by the ministry of finance or other governmental units at the central bank and other monetary financial institutions (MFIs), the net acquisition of nongovernment securities by social security funds (which build up assets to cover future pension entitlements), and the net acquisition of equity held by government in public corporations.

10.45 Pillar B—time of recording and other differences—can be divided into the following categories:

- Time of recording differences;
- Net transactions in financial derivatives;
- Statistical discrepancies; and
- Transactions in monetary gold and insurance technical reserves.

10.46 Time of recording differences refers to the difference between the recording of expenditure and the related payments and that of revenue and the related cash flow to government. For instance, expenditure is recorded upon delivery of supplies and hence increases the deficit, although government may delay (in line with contractual settlement clauses) the actual cash payment. The financial claim on government owing to this timing difference is recorded under other accounts payable (F.7). Other accounts payable are not part of government debt as defined for the purpose of the EDP (unlike the definition of debt used in this *Guide*). Similarly, taxes are recorded as reducing the deficit at the time that they are assessed, even though payment may take place somewhat later. This delay is recorded under other accounts receivable (F.7) in the government accounts. Other time of recording differences may arise on account of the advance or delay in the EU reimbursing the funds the government spends on its behalf.

10.47 Transactions in financial derivatives (F.34) may either generate cash, thereby reducing the government borrowing requirement,[17] or oblige the government to borrow more where settlements under swaps turn out to be negative.

10.48 The statistical discrepancy is the difference between the deficit as measured by the nonfinancial accounts (B.9), and the deficit as measured by the financial accounts (B.9f). When the government has a deficit in the nonfinancial accounts, the equivalent amount should be displayed in the general government financial accounts: the increase in liabilities should exceed the increase in financial assets by the amount of the deficit. Because different sources of data are used to measure the transactions resulting in the two balances, B.9 and B.9f are not always equal.

10.49 Transactions in monetary gold and insurance technical reserves are typically negligible for general government in euro area countries.

10.50 Pillar C—valuation effects and other changes in the volume of debt—can be divided in three groups:

- The market-to-face-value adjustment;
- Foreign exchange holding gains and losses; and
- Other changes in the volume of debt.

10.51 General government debt (and therefore the change in debt) is recorded at face value, whereas financial transactions in the *ESA95* are recorded at market value (including accrued interest). In order to compensate for this difference in valuation, the DDA includes the market-to-face-value adjustment. The adjustment applies only to transactions—that is, to new borrowings and repayment or buying-in of debt at prices which differ from face value (issuances and redemptions below or above par).

10.52 General government debt denominated in foreign currency, unless covered forward, is valued at current exchange rates on the balance sheet date. The amount of outstanding debt may therefore vary without any counterpart in the general government deficit, or any transactions in foreign currency debt in the intervening period. Thus foreign exchange holding gains and losses are another element of the DDA. General government debt covered forward is valued at the

[17] The borrowing requirement is defined here as total transactions in liabilities in the form of debt instruments (for the purpose of the EDP, these are currency and deposits, loans, and debt securities).

exchange rate in the forward contract, which does not vary during the life of the contract.

10.53 Changes in the debt related to reclassification are recorded in other changes in the volume of debt. These include changes in the statistical classification of units from the government to a nongovernment sector (or the reverse). Following the reclassification, liabilities of these units cease to be government debt, with no counterpart in the general government deficit. This item may also conceal statistical discrepancies between financial flows and the stock of debt.

6. Other methodological work

10.54 The GFS data should also reflect decisions taken by Eurostat on the interpretation of the *ESA95* in specific cases involving the general government sector. With the aim of ensuring a consistent compilation of government deficit and debt across EU countries, Eurostat has developed a well-defined procedure for dealing with borderline transactions. After discussions in expert Eurostat working parties and task forces, Eurostat consults the Committee on Monetary, Financial and Balance of Payments Statistics (CMFB),[18] comprising senior statisticians of NCBs and national statistical institutes. Eurostat then takes the final decision on the transaction according to purely technical criteria, which is thereafter applicable to similar cases arising throughout the EU. The main methodological decisions are discussed in more detail in the *ESA95 Manual on Government Deficit and Debt* ("*Deficit and Debt Manual*").[19]

10.55 One example of such discussion was the response to the 2008-09 global financial crisis and its consequences for European financial institutions, European governments, central banks, and other public authorities who implemented measures to stabilize the financial markets and the economy in general. The government operations involved measures such as (partial) nationalizations, capital injections (recapitalizations), the purchase and/or exchange of financial assets, and the provision of guarantees (on deposits and new debt issuances by banks as well as on interbank lending). This raised a number of questions on government accounting that were discussed among the CMFB members. The outcome of these discussions was reflected in Eurostat guidance on the statistical recording of public interventions to support financial institutions and financial markets.

E. Eurostat

1. Introduction—the Excessive Deficit Procedure and ESA95 Transmission Program

10.56 Eurostat publishes government debt data[20] collected from European Union member states, and certain other European countries, via two channels:

- The EDP Notification Tables; and
- The *ESA95* Transmission Program (ESA95TP).

10.57 In the framework of the EDP (see the annex to Chapter 5), all EU member states are required to report their annual government deficit and debt data to Eurostat before April 1 and October 1 each year. The data are provided for four back years. Following a process of clarification, Eurostat publishes the government deficit and debt data three weeks after country reporting.

10.58 National accounts of each EU member state are compiled separately by each country, according to the *ESA95*, by the National Statistical Institute or (exceptionally) another institution appointed by the government (for example, the national central bank).

10.59 Eurostat compiles European aggregates indirectly by combining the member states' national contributions. To coordinate this work, with country reporting synchronized for content and timing, an ESA95TP has been established, which has a legal basis to ensure compliance. The transmission program includes annual financial accounts data broken down by sector (including general government), and annual and quarterly nonfinancial sector accounts.

10.60 Quarterly government debt data (according to the definition used for the EDP, see above) and quarterly government financial accounts are the subject of separate transmissions.

2. The structure of the debt questionnaire

10.61 In addition to the data collection through the EDP and ESA95TP, Eurostat launches an annual voluntary questionnaire on government debt structure with the aim of collecting main features of debt in EU coun-

[18] See http://www.cmfb.org.

[19] Available at the government finance statistics section of the Eurostat Web site (http://www.epp.eurostat.ec.europa.eu).

[20] These data are published on Eurostat's Web site and in various publications.

tries (for example, on maturity and currency structure). These data are published in the early autumn each year, with data up to the previous year.

3. Publication of debt statistics

10.62 Debt statistics are disseminated in several of Eurostat's publications:

- EDP Notification Tables: EDP-related data are sent to Eurostat twice a year—at end-March and end-September. These data should be fully consistent with GFS data collected through the *ESA95* transmission program.
- **Government finance statistics (GFS) in Eurostat's database**:
    - Quarterly GFS, comprising of quarterly government debt and quarterly financial accounts of general government; and
    - Government deficit and debt, comprising of the structure of government debt,[21] debt by currency of issue, and state guarantees.

10.63 Annual GFS tables are compiled twice a year, around end-April and end-October, and quarterly GFS tables are compiled four times per year. These tables cover, in an integrated way, government revenue and expenditure, deficit/surplus, transactions in financial assets and liabilities, other economic flows in financial assets and liabilities, and financial balance sheets. The tables show, for each EU member state, the data expressed in millions of national currency, as percentages of GDP, and (for quarterly data) as quarter-to-quarter of the previous year growth rates. The tables follow the definitions established for GFS in Europe and therefore differ in some minor ways from the GFS reported to, and published by, the IMF.

4. Methodology

10.64 EU government deficit and debt data are based on the methodological rules of *ESA95*, together with some specific definitions for EDP-related data. The *ESA95 Manual on Government Deficit and Debt* (*MGDD*) is intended to aid the application of *ESA95* for calculating government deficit and debt. The *MGDD* is not a legal act, but provides commonly accepted interpretation and guidance for Eurostat and European countries.[22] The original manual has been supplemented by new chapters over time.[23]

10.65 The following manuals provide additional conceptual guidelines as well as descriptions on actual sources and methods used in practice by member states for the compilation of government data[24]:

- *Manual on Sources and Methods for the Compilation of ESA95 Financial Accounts, second edition;*
- *Manual on Sources and Methods for the Compilation of Classification of the Functions of Government (COFOG) Statistics;*
- *Manual on Compilation of Taxes and Social Contributions on a Quarterly Basis;*
- Manual on Quarterly Nonfinancial Accounts for *General Government; and*
- *Manual on Sources and Methods for Quarterly Financial Accounts for General Government.*

10.66 Eurostat also disseminates the following methodology-related documents:

- **Decisions for GFS**: Eurostat disseminates decisions which provide guidance to countries on the recording of certain types of transactions, or which deal with specific cases which are particularly complex (see paragraphs 10.54–10.55).
- **Guidance on accounting rules for EDP and GFS**: In addition to *ESA95* and the *ESA95 Manual on Government Deficit and Debt*, Eurostat occasionally publishes guidance notes on specific issues.
- **EDP Inventories**: These documents describe the sources and methods used by each member state for compiling the reported EDP data.
- **Advice letters to member states**: Eurostat provides bilateral advice to EU member states when requested on specific cases, and the exchange of letters is published.

[21]This is further broken down into central government debt, state and local government debt, and social security funds' debt.

[22]In case of possible conflicting guidelines between the *MGDD* and *ESA95*, the latter—which is a European Regulation—is the primary source of reference.

[23]The following chapters were added: Securitization operations undertaken by general government; Capital injections; Classification of funded pension schemes and impact on government finance; Lump-sum payment to government in the context of the transfer of pension obligations; and Long-term contracts between government units and nongovernment partners.

[24]Some are directly relevant to the compilation of government debt statistics, and others are linked to other GFS datasets.

10.67 This information can be found on Eurostat's Government Finance Statistics Web pages, which are accessible from the main Eurostat Web site.

F. International Monetary Fund (IMF)

10.68 The IMF has a multifaceted work agenda on public sector debt. This includes:

- The development of statistical methodology and standards, technical assistance and training in applying these, dissemination of statistics, and evaluation of countries' compliance with the standards;
- The incorporation of debt sustainability analysis into surveillance[25]; and
- Technical assistance and training in debt management, covering the public financial management aspects as well as the institutional arrangements, debt structure, debt operations, funding strategy, capital market development, and debt restructuring.

1. Statistics

a. Methodology

10.69 The IMF is responsible—often in cooperation with other international agencies—for providing internationally accepted manuals and guides in the following statistical areas[26]:

- External sector;
- Government finance;
- Monetary and financial; and
- National accounts and prices.

10.70 The manuals and guides are harmonized, to the extent possible, with the latest version of the *System of National Accounts*.

[25]Surveillance is an essential aspect of the IMF's responsibilities associated with overseeing the policies of its members in complying with their obligations specified in the IMF's Articles of Agreement. The Articles of Agreement is an international treaty that sets out the purposes, principles, and financial structure of the IMF.

[26]All of these statistical methodologies deal with public sector debt, or some components, in some way or another.

b. Data standards and codes

10.71 The IMF's work on data dissemination standards began in October 1995, when the Interim Committee (now the International Monetary and Financial Committee or IMFC) endorsed the establishment by the IMF of standards to guide members in the dissemination to the public of their economic and financial data. Those standards were to consist of two tiers: the **General Data Dissemination System** (GDDS), which would potentially apply to all IMF members, and the **Special Data Dissemination Standard** (SDDS), for those member countries having or seeking access to international capital markets. Both tiers cover government debt statistics.

10.72 The IMF's **Dissemination Standards Bulletin Board** (DSBB)[27] was established to guide countries in their provision of economic and financial data to the public. The DSBB provides access to the SDDS, the GDDS, and the Data Quality Reference (DQRS) Web sites.

- The **SDDS** was established in 1996 to guide countries that have, or that might seek, access to international capital markets in the dissemination of economic and financial data to the public. The SDDS Web site[28] provides information about economic and financial data disseminated by member countries that subscribe to the SDDS.
- The **GDDS** was established in 1997 to guide countries in the provision to the public of comprehensive, timely, accessible, and reliable economic, financial, and socio-demographic data. The GDDS Web site[29] provides information on data produced and disseminated by member countries that participate in the GDDS. Member countries of the IMF voluntarily elect to participate in the GDDS. The GDDS framework is built around four dimensions—data characteristics, quality, access, and integrity—and is intended to provide guidance for the overall development of macroeconomic, financial, and socio-demographic data.
- The Data Quality Reference Site (**DQRS**),[30] which was created to foster a common understanding of data quality, provides access to contributions in the field and includes a selection of articles, and other sources related to data quality issues.

[27]See http://dsbb.imf.org.

[28]See http://dsbb.imf.org/Pages/SDDS/Overview.aspx.

[29]See http://dsbb.imf.org/Pages/GDDS/WhatIsGDDS.aspx.

[30]See http://dsbb.imf.org/Pages/DQRS/DQAF.aspx.

10.73 The IMF also conducts Reports on the Observance of Standards and Codes (ROSCs), which summarize the extent to which countries observe certain internationally recognized standards and codes, including **data dissemination**. Reports summarizing countries' observance of these standards are prepared and published at the request of the member country. They are used to help sharpen the institutions' policy discussions with national authorities, and in the private sector (including by rating agencies) for risk assessment.

10.74 For statistics, the ROSC—Data Module is based on the Data Quality Assessment Framework (DQAF), as described on the DQRS. The DQAF provides an integrated and flexible framework in which data quality is assessed using a six-part structure that spans institutional environments, statistical processes, and characteristics of the statistical products.

c. Publication of government finance statistics

10.75 Government finance statistics (GFS), which include debt statistics, are disseminated in the IMF's annual *Government Finance Statistics Yearbook* (*GFS Yearbook*) and in the monthly *International Financial Statistics* (*IFS*) publications. In both publications, the data are presented according to the *Government Finance Statistics Manual (GFSM)*.

10.76 The *GFS Yearbook* contains annual statistics covering the general government sector, and its subsectors, of member countries. The *GFS Yearbook* is disseminated in hard-copy and on CD-ROM. The *GFS Yearbook* is a global time series collection of detailed fiscal statistics that are comparable across countries. The *GFS Yearbook* is compiled from data submissions by member countries. Eurostat coordinates the submission of several European countries to reduce reporting burdens for its members. The comparability across countries is achieved by using the *GFSM* framework for processing all submissions. The *GFSM* methodology and, thereby, the publication of the annual *GFS Yearbook* data, is supported by the IMF through technical assistance and training to assure data consistency across countries (see below).

10.77 More current and higher frequency (i.e., monthly and/or quarterly) government finance statistics (including debt statistics) are available in the *IFS*, which is published in hard-copy and online. Unlike the *GFS Yearbook* which aims to capture the operations of the general government and its subsectors separately, the *IFS* data cover, in some cases, only the central government or the budgetary central government (i.e., without the extrabudgetary components or social security funds). The higher frequency *IFS* government finance statistics are also presented according to the *GFSM*. However, because of differences in institutional coverage among countries, their statistics are not always comparable across countries.

10.78 The Statistics Department of the IMF also collaborates with the World Bank on their collection and dissemination of external and public sector debt statistics (see *World Bank* later in this chapter).

d. Technical assistance and training in the compilation of government finance statistics

10.79 The IMF offers technical assistance in the **compilation of government finance statistics** (which also cover debt statistics). This work is reinforced by training courses and workshops for member country officials on statistical methodologies and their applications, including public sector debt statistics.[31] In addition, the IMF provides information on data and statistical topics via its public Web site.[32]

10.80 Technical assistance is designed to improve the collection, compilation, and dissemination of official statistics. In addition to providing assessments with respect to accuracy, coverage, and timeliness, technical assistance missions in each area often deliver on-the-job training, help design reporting forms, and spreadsheets to facilitate correct classification, and lay out short- and medium-term action plans for the improvement of statistical procedures. Missions may pay particular attention to assisting countries in their efforts to comply with the requirements of the SDDS or participate in the GDDS.

10.81 The main vehicle for the delivery of technical assistance is short-term single-topic missions, which are conducted by IMF staff and externally recruited experts. The IMF also undertakes multitopical statistical missions, which provide overall assessments and recommendations for strengthening institutional arrangements, methodology, collection, and compilation practices in the major areas of macroeconomic statistics. These missions address the issues related to each sector, and consider the consistent treatment of data and

[31]For further information on the IMF's technical assistance and training courses, please contact: The Director, Statistics Department, International Monetary Fund, Washington, D.C., 20431, USA.

[32]See http://www.imf.org/external/data.htm.

coordination arrangements across sectors, and provide short- and medium-term action plans for improving statistics, including follow-up missions in the topical areas.

10.82 The IMF also offers training courses and workshops in statistical methodology at the IMF Institute in Washington, D.C., and at regional training centers. These courses and workshops range from one to six weeks in length and generally include a series of lectures, discussions, practical exercises, and case studies. During the lectures, participants are afforded an opportunity to discuss problems that they have actually encountered in the course of their work in their respective countries.

2. Public sector debt surveillance and management

10.83 The IMF actively provides support for members' reform of effective management of public sector debt through a variety of routes: surveillance, technical assistance, and training.

a. Surveillance

10.84 Within bilateral surveillance, where relevant, attention is focused on debt sustainability (see Chapter 9 of this *Guide*), debt composition and debt structures, debt strategies, debt markets, debt institutions, and debt statistics to inform the IMF's Article IV consultation[33] in member countries. In addition, efforts to strengthen debt management capacity, which represents an important factor in the application of the new IMF policy on debt limits, can be part of IMF programs. Frequently, debt management and debt market issues are also covered through the joint IMF-World Bank Financial Sector Assessment Program (FSAP).

10.85 In the context of multilateral surveillance, key developments in debt markets and current debt management challenges are monitored through:

- The annual IMF *Public Debt Managers' Forum* discussions with the private sector on the debt capital market side; and
- Regular coverage in the *Global Financial Stability Report*.

b. Technical assistance and training in public sector debt management

10.86 The IMF delivers technical assistance on all aspects of **public sector debt management**, except data systems. This technical assistance focuses on the frameworks for public sector debt management,[34] as well as the legal and statistical (see Statistics above) aspects.

10.87 Most technical assistance takes place in the form of missions, led by IMF staff and could include external experts from central banks, ministries of finance, and debt management offices. Sometimes debt management advisors are placed in individual countries. Debt management advisors can also be placed in several of the IMF's regional Technical Assistance Centers (RTACs) for more interactive engagement, and sometimes debt advisors are assigned to specific regional projects.

10.88 The IMF also offers training courses and workshops at the IMF Institute in Washington, D.C., at regional training centers, and in partnership with regional technical assistance centers, as well as other multilateral agencies, including the World Bank, on the recently launched joint IMF-World Bank Medium-Term Debt Management Strategy (MTDS).[35] Courses are offered on a select basis covering institutional arrangements for debt management, debt portfolio risk management, and debt strategy development and implementation.

i. Overall framework for public sector debt management

10.89 The IMF provides policy advice, technical assistance, and training on the overall operational framework for public sector debt management. This work of the IMF:

- Serves as a reference point for technical advice and analysis relating to debt and liability management operations, asset and liability management activities, and overall balance sheet risk management, and debt restructuring; and
- Is informed by *Guidelines for Public Debt Management*[36] developed jointly with the World Bank,

[33] An Article IV consultation is a regular (usually annual), comprehensive discussion between the IMF staff and representatives of individual member countries concerning the member's economic and financial policies. The basis for these discussions is in Article IV of the IMF Articles of Agreement (as amended, effective 1978) which direct the IMF to exercise firm surveillance over each member's exchange rate policies.

[34] Including debt strategy, risk measures in a debt portfolio, debt-monetary-financial stability interactions, debt market development, and liability management operations.

[35] See Chapter 9 of this *Guide* for a discussion of the MTDS.

[36] See http://www.imf.org/external/np/mae/pdebt/2000/eng/index.htm.

as well as *Developing Government Bond Markets: A Handbook*.[37]

10.90 The issues covered under the overall framework for public sector debt management are:

- The institutional framework for debt management;
- Debt management strategy (including debt portfolio risk measures, issuance and funding strategy, choice of funding instruments, and accessing international capital markets);
- Debt market development;
- Liability management operations (including debt restructuring and creditor relations); and
- Asset-liability management (ALM) (including coordination with reserve management and identifying and managing quasi-sovereign and contingent risks).

The work aims to assist member countries to maintain the financial integrity of sovereign balance sheets, and to ensure that policy linkages are properly integrated in the debt strategies, and broader sovereign balance sheet risk management.

10.91 Technical assistance typically involves a comprehensive and in-depth assessment of the entire framework for public sector debt management and debt market development. This assessment ranges from the appropriateness of the debt management objectives, its coverage, and legal framework, to debt management strategy and debt operations. The institutional framework often undergoes adjustment as the debt management function evolves, frequently from a function integrated with the central bank's open market operations to a debt office more integrated with fiscal operations or a stand-alone office.[38] Technical assistance in this area is designed primarily to assess and advise on how the institutional framework can best support the debt management function as it is expected to evolve. In this regard, coordination with other functions (monetary, fiscal, project planning and selection) is vital.

10.92 A key element is the provision of assistance in the design and implementation of a medium-term debt management strategy (MTDS) through the application of the "MTDS toolkit" jointly developed with the World Bank.[39] The IMF and the World Bank, in collaboration with other international technical assistance partners, conduct joint missions to developing and emerging countries. The framework is focused on finding the best cost-risk trade-off of different debt strategies: the composition is increasingly recognized as a core factor in avoiding default, keeping debt sustainable and affordable.

10.93 Debt market development is essential for promoting robust demand for public sector debt and stimulating private financial sector development. Technical assistance on this element of debt management is provided usually in the context of an overall debt management strategy, but also on a stand-alone basis. Topics covered by this technical assistance include:

- Developing primary and secondary capital markets (including domestic government auctions, primary dealer networks, payment systems, and the debt investor base);
- Providing advice to first-time bond issuers; and
- Coordinating debt and monetary management.

10.94 Assistance also focuses on the capital market interactions of public sector debt as part of normal debt management (such as via buy-back operations, debt exchanges, and benchmark issues), or part of a more fundamental restructuring of the debt portfolio. The latter may be provided on an emergency basis, usually in the context of an IMF-supported economic program to restore economic viability.

10.95 Emphasis is also placed on asset-liability management (ALM) based on debt and asset portfolio analysis and modeling, using state-of-the art tools. This is focused on enhancing risk management capabilities, promoting the optimal composition of debt and assets, and identifying debt and asset management operations to bring this about.

ii. Fiscal framework for public sector debt management

10.96 The IMF also provides technical assistance on the fiscal policy aspects of public sector debt management, as well as on public financial management in general (of which debt management is one important component which needs to be integrated with other public financial activity). Topics covered include:

[37]See http://www.imf.org/external/pubs/cat/longres.cfm?sk=15114.0.

[38]The main functions a debt management office are discussed in Chapter 6 of this *Guide*.

[39]The MTDS toolkit involves a guidance note for country authorities, an analytical spreadsheet, and accompanying user guide. See http://www.imf.org/external/pp/longres.aspx?id=4326.

- Fiscal and debt sustainability, in particular in the context of setting a medium-term fiscal strategy;
- Medium-term fiscal frameworks and fiscal rules (including debt rules);
- Fiscal risk management;
- Coordination of cash and debt management;
- Treasury functions in general; and
- Institutional aspects of public financial reform.

10.97 The IMF advises on the design of fiscal frameworks for setting deficit and debt paths, and on the appropriate strategy for ensuring debt sustainability.

10.98 As described in Chapter 9 of this *Guide*, advice also covers the identification and management of contingent liabilities and fiscal risks more generally. Advice on fiscal risks has significant bearing on the way sovereign balance sheets are defined and on how the debt portfolio is perceived and managed. Direct contingent risks such as government guarantees on corporate or subnational government debt can be adequately covered by a registry and guarantee fees. Implicit fiscal risks can be difficult to analyze; they include, for example, government guarantees leading to moral hazard for the central government and exposure risks in government projects such as public-private partnerships.

10.99 Technical assistance is provided on all aspects of cash-flow planning and management, of which an important aspect is its relationship with debt portfolio management. The largest flows into and out of the Treasury are often those relating to debt raising and debt servicing. Once a government is confident that its cash planning is sufficiently accurate, short-term money and securities market operations are necessary to meet cash surpluses and shortages efficiently. All of these operations need to be fully coordinated.

10.100 Technical assistance on reforms of the institutional arrangements in the public sector include the establishment of debt management offices and cash management units, and their relations with ministries of finance, and with line ministries, central banks, and the financial sector and markets.

G. Organization for Economic Cooperation and Development (OECD)

10.101 The OECD produces two main sets of data which contain information on government debt. One dataset deals with the Central Government Debt, under the auspices of its Working Party on Public Debt Management (WPDM), and includes quantitative and qualitative information on specific central government debt instruments. The other dataset, under the auspices of the Working Party on Financial Statistics (WPFS), corresponds to a set of financial balance sheets (as part of the *SNA*). These financial balance sheets contain information on the liabilities (and debt) of general government and its subsectors, classified by financial instruments. The parent committee of these two Working Parties is the Committee on Financial Markets.

1. OECD activities linked to central government debt

a. Background

10.102 Through its WPDM, the OECD provides authoritative information on technical and policy issues in the area of public debt management and government securities markets. The first, principal objective of the WPDM is to provide a practical, hands-on policy forum for senior OECD debt managers. The first pillar of the WPDM's medium-term strategy is to strengthen this practical approach.

10.103 Since its creation, the WPDM has given senior government debt managers the opportunity to exchange informally and frankly their views and experiences in the field of government debt management and government securities markets. To that end, the agenda of the Annual Meeting of the WPDM (and also its global forums) tracks closely the rapid development in government debt policies and markets. Accordingly, the WPDM has focused on a wide range of topics, including such pressing government debt policy issues as the cost effectiveness of government debt instruments, the use of electronic systems, organization of debt management offices (DMOs), the role of debt managers (DMs) in sovereign asset/wealth management, the performance measurement of DMOs, new selling techniques, the organization of primary and secondary markets in government securities, advances in risk management, organization of cash management, the role of derivatives, and the role of DMs in assessing and managing contingent liabilities.

10.104 In this way, it has been possible to compile a unique, authoritative and up-to-date pool of knowledge in this special field of government activity and policy. The second main objective of the WPDM is to formulate, where possible and relevant, leading practices based on discussions among OECD debt managers in this highly specialized area of government policy. Over the last decade, the WPDM has achieved a singular international status in the international community of debt managers, while its activities have resulted in a set of leading practices that function de facto as global standards. The second pillar of the WPDM's medium-term strategy is to develop further the set of leading practices and to disseminate them in an efficient fashion to a global audience.

10.105 Information about leading practices related to government debt management policy as well as primary and secondary debt market operations have been shared with debt managers from emerging market economies. To that end, the WPDM initiated in 1990 a policy dialogue with "transition" countries and, later on, with emerging markets in several regional and global policy forums.[40] As a result, the WPDM's pool of knowledge has become valuable for the debt managers and other financial policymakers from emerging market economies when they design and implement policies. The third main objective of the WPDM is to share this knowledge with policy makers from emerging debt markets via both dedicated WPDM global policy forums and outreach programs. At global Forums public debt managers from the OECD area discuss in an in-depth fashion OECD practices and policies with their counterparts from non-OECD countries. Forum meetings serve also as opportunities for in-depth follow-up discussions of topics that have been discussed by the WPDM. Accordingly, the third pillar of the WPDM's medium-term strategy is to strengthen and streamline the existing two global forums.[41] It is also envisaged to deepen and extend the relations with non-OECD debt managers and other relevant multilateral organizations.

10.106 The OECD compiles and disseminates central government debt data for OECD countries and central government debt data for African countries.[42]

b. Central Government Debt: Statistical Yearbook for OECD countries

10.107 OECD's *Central Government Debt: Statistical Yearbook* constitutes an annual release of a comprehensive set of data on central government debt of the OECD member countries. The *Yearbook*, published on the responsibility of the Secretary General of the OECD, is designed to meet the analytical requirements of users such as policymakers, debt management experts, and market analysts.

10.108 The focus of the publication and the underlying electronic database is to:

- Provide comprehensive quantitative information on marketable and nonmarketable central government debt instruments in all OECD member countries; and
- Present the borrowing requirements of governments to finance their budget deficits, with the aim of meeting the analytical needs of users such as policymakers, debt management experts and market analysts. More specifically, the *Central Government Debt Statistical Yearbook* includes information for OECD countries on:
  - Outstanding amounts by instrument;
  - Gross and net issues of marketable and nonmarketable debt of central governments, by instrument;
  - Duration and average term-to-maturity of domestic, external, and total debt;
  - Outstanding amounts by type of investors (resident and nonresident).

10.109 The coverage of the data is limited to central government[43] debt issuance and excludes debt of state and local governments, as well as social security funds. The following concepts are used:

- **Marketable instruments**, which consist of money market instruments (Treasury bills, commercial papers and other), bonds (fixed-rate income instruments, further subdivided into short-term, medium-term, and long-term bonds, index-linked bonds, variable-rate notes, and other bonds) with details on the length of maturity of long-term bonds and index-linked bonds. Other information is also provided: total marketable debt held by nonresidents, total marketable debt in foreign currency, the weighted average maturity of mar-

[40]For example, the OECD has established the *Network for Public Debt Management in Emerging Markets*, in collaboration with the Italian Treasury. This Network offers continuous online access to the WPDM's pool of knowledge on experiences and leading practices in all aspects of public sector debt management. See http://www.publicdebtnet.org/public/.

[41]The two forums are the Annual OECD/World Bank/IMF Global Bond Market Forum and the Annual OECD Global Forum on Public Debt Management.

[42]See www.oecd.org/daf/publicdebtmanagement.

[43]The central government subsector is defined as those institutional units making up the central government plus those NPIs (nonprofit institutions) that are controlled and mainly financed by central government. Central government has the authority to impose taxes on all resident and nonresident units engaged in economic activities within the country.

ketable debt, and the weighted average yield of marketable debt.

- **Nonmarketable instruments**, which consist of savings bonds and other nonmarketable instruments.
- **Duration**, which is the duration of the central government debt and can be calculated according to the Macaulay duration or the modified duration methods.
- **Term to maturity**, which is the period of time until the redemption or expiration of a financial instrument. For most countries, the maturity structure is a residual maturity, that is, the remaining time until the expiration or the repayment of the instrument. For seven countries (Italy, Japan, Korea, Mexico, Poland, Portugal, and Slovak Republic), it is the original maturity and precise definitions are indicated in the methodological notes.
- **Nominal value**, which is the valuation for recording transactions, that is, the amount that the debtor owes the creditor at any moment in time. If the valuation differs from nominal value, it is indicated in the methodological notes.

10.110 Statistics are derived from national sources based on a questionnaire prepared under the auspices of the OECD Working Party on Government Debt Management. Concepts and definitions are based, where possible, on the *SNA93*. Individual country data are presented in a comprehensive standard framework to facilitate cross-country comparison.

10.111 Accompanying country policy notes, metadata, describe the details of debt instruments in each country and provide information on the institutional and regulatory framework as well as on selling techniques of debt instruments.

10.112 Data are available from 1980 and presented in national currency, U.S. dollars, and as a percentage of GDP for the relevant fiscal year. Financial derivatives are excluded, unless otherwise indicated in country notes.

c. African Central Government Debt: Statistical Yearbook *for African countries*

10.113 OECD's *African Central Government Debt: Statistical Yearbook* is an annual publication that provides information on central government debt instruments for African countries. The *Yearbook*, published on the responsibility of the Secretary General of the OECD, is designed to meet the analytical needs of users such as policymakers, debt management experts, and market analysts.

10.114 The focus of the publication is to provide comprehensive quantitative information on central government debt instruments in African countries. The data in the publication, and underlying database, are available from 2003 and presented in national currency and euro for the relevant fiscal years. The *African Central Government Debt: Statistical Yearbook* provides information for African countries on:

- Outstanding amounts of marketable and nonmarketable debt;
- Accumulations and reductions of marketable and nonmarketable debt of central governments;
- Term to maturity and refixing of marketable and nonmarketable debt;
- Ownership of local currency marketable debt; and
- Interest rates (yield-to-maturity, or YTM, in secondary markets).

10.115 The coverage of the data is therefore limited to central government debt issuance, as well as to bilateral, multilateral, and concessional loans provided to the central government. The data exclude debt of state and local governments, as well as social security funds.

10.116 Countries covered in the publication, as at 2010, are Angola, Cameroon, Kenya, Madagascar, Malawi, Morocco, Mozambique, Namibia, Nigeria, South Africa, Tanzania, Tunisia, Uganda, and Zambia.

10.117 Statistics are derived from national sources based on a questionnaire prepared under the auspices of the OECD. Concepts and definitions are based, where possible, on the *System of National Accounts, 1993* (*SNA93*). Individual country data are presented in a comprehensive standard framework to facilitate cross-country comparison.

10.118 Accompanying policy notes describe the details of debt instruments in each country and provide information on the institutional and regulatory framework as well as primary and secondary markets for debt instruments. African debt management offices constitute the principal source of information for the data on instruments and policies.

2. Activities linked to financial balance sheets (SNA)

a. Background

10.119 The WPFS contributes to the OECD's aim to deepen the knowledge of the financial systems of its member countries and provides a better understanding of the interactions between the real economy and financial activities in these economies. The WPFS monitors the collection of financial statistics and methodological information, including financial balance sheets that are part of the *SNA*'s sequence of accounts.

b. Debt of the general government and its subsectors

10.120 As a general rule, the entries in the *SNA* are not consolidated. However, for certain kinds of analysis, especially for the general government sector (S13), consolidation[44] may be most relevant. The OECD Financial Balance Sheets record stock positions of financial assets and liabilities held by the institutional sectors (of which the general government sector and its subsectors) on a consolidated and unconsolidated basis.

10.121 The following concepts are used[45]:

- **Institutional sectors** are composed of institutional units grouped together into five main categories, of which **general government (S13)** is further divided into subsectors (S1311, S1312, S1313, S1314). These five categories form the **total economy** sector **(S1)**, while all nonresident institutional units form the **rest of the world** sector **(S2)**.
- The **general government sector (S13)** consists of general government entities which administer and finance activities, principally providing nonmarket goods and services, intended for individual or collective consumption, as well as nonprofit institutions which are controlled and mainly financed by units of the government. The major part of output of these units is provided free or at not economically significant prices. The S13 sector is further split into central government (S1311), state government (S1312), local government (S1313), and social security funds (S1314).
- **Stock positions** correspond to the amount of financial assets and liabilities at a point in time. The financial balance sheets also include a balancing item, the net financial worth (see Chapter 3 of this *Guide*).
- **Financial assets and liabilities** are grouped into seven instrument categories, with most of them divided into subgroupings, which are based on their liquidity: monetary gold and SDRs (F.1), currency and deposits (F.2), securities other than shares (F.3), loans (F.4), shares and other equities (F.5), insurance technical reserves (F.6), and other accounts receivable/payable (F.7). All assets have a counterpart liability, except for F.1.
- **General government gross debt** covers all liabilities (short- and long-term) from instrument AF.2 to instrument AF.7, for all institutions of the general government sector (S13) which includes the central, state, and local governments, as well as the social security funds subsector. Central government gross debt covers all liabilities of the central government subsector (S1311).
- In **consolidated accounts** stock positions of financial assets and liabilities between subsectors of the same sector and between institutional units of the same subsector are eliminated. Such accounts better reflect the financial position of the various economic players.
- **Valuation** is in line with the general valuation principles described in the *SNA*, that is, at current market prices whenever they are regularly traded on organized financial markets. Also, financial assets and liabilities are assigned the same value in the balance sheets whether they appear as assets or liabilities.

10.122 Based on a Joint OECD/Eurostat questionnaire, statistics are derived from national sources, mainly central banks and national statistics offices. These statistics cover the financial balance sheets of all OECD countries.

H. Paris Club Secretariat

10.123 The Paris Club has developed procedures for the collective rescheduling of official bilateral debt since the 1950s, when Argentina approached bilateral creditors. The Club is an ad hoc organization of creditor countries (mainly OECD members) that responds to requests for debt relief with respect to guaranteed export credits and intergovernmental loans.

[44]Consolidation involves the elimination of the transactions and stock positions between units belonging to the same institutional sector or subsector.

[45]All concepts and definitions are based on the *SNA93*, although many correspond with the *2008 SNA*.

10.124 Debts to Paris Club official creditors are now restructured through the Paris Club, especially since Russia became a member of the Club in 1997. Debts to commercial banks are typically restructured through consortia of commercial banks. Noninsured supplier credits and debts to governments that do not participate in the Paris Club are normally restructured through bilateral negotiations.

1. Paris Club

10.125 The Paris Club is an informal group of creditor countries. The French Treasury maintains a permanent secretariat, and a senior official serves as Chairman, to administer the Paris Club on behalf of other creditor countries. There are 19 permanent members; nonmember creditor countries may be invited to take part in meetings[46] for the treatment of the debt of a specific debtor country if they have significant claims on that country. The Club meets virtually every month in Paris, both for discussion of debt issues among the permanent members and for the rescheduling of the debt of a specific debtor country.

10.126 Countries facing difficulties in servicing of debt to official bilateral creditors will approach the Chairman of the Paris Club and ask to be considered for relief. The creditors at their monthly meeting will agree to hear that country's application, provided that an IMF-supported adjustment program is in place and that there is a financing need that requires rescheduling. Agreement is normally reached in face-to-face negotiations or by mail if there are very few creditors. The Paris Club 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: officially guaranteed export credits and bilateral loans. The representatives of the creditor countries at the Paris Club decide on the period over which debt relief will be given (known as the consolidation period), the debts that will be included (current maturities, possibly arrears, possibly previously rescheduled debt), and the repayment terms on consolidated debt (grace and repayment periods).

10.127 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.

10.128 Paris Club negotiations result in a multilateral framework agreement (Agreed Minute), which must be followed up with bilateral implementing agreements with each creditor agency. The interest rate on rescheduled debt (known as moratorium interest) is not arranged at the Paris Club but is negotiated bilaterally, reflecting market rates.

10.129 At the beginning of the debt-relief process, Paris Club creditor countries will establish a "cutoff date." This means that all loan contracts signed after that date are generally not eligible for debt relief by the Paris Club.[47] The aim is to help the debtor country reestablish its creditworthiness by paying new obligations on their original schedules. Even though debt relief may extend over many years through a succession of Paris Club agreements, the cutoff date will usually remain unchanged.

10.130 It was increasingly recognized in the 1980s that some low-income countries with high external debt were facing solvency and not only liquidity problems. Over the years, the Paris Club has provided increasingly concessional rescheduling terms to low-income countries. The level of debt reduction on commercial claims was gradually increased from Toronto terms (1988—33.33 percent debt reduction) to London terms (1991—50 percent debt reduction) to Naples terms (1995—50 percent to 67 percent debt reduction), to Lyon terms (1996—80 percent debt reduction) and to Cologne terms (1999—90 percent reduction or more if needed under the HIPC Initiative).

10.131 In 1996, the debt initiative for heavily indebted poor countries (HIPCs) was established, leading for the first time to multilateral creditors providing debt relief to a country. The Paris Club provides its debt-relief effort in the context of the HIPC Initiative through the use initially of Lyon terms, and now of Cologne terms.

[46]As at 2010, the following countries that are not permanent members have participated as creditors in some Paris Club agreements: Abu Dhabi, Argentina, Brazil, Israel, Korea, Kuwait, Mexico, Morocco, New Zealand, Portugal, South Africa, Trinidad and Tobago, and Turkey.

[47]Loan contracts signed after the cut-off date can nevertheless be partly or fully cancelled in the framework of the Enhanced HIPC Initiative when this cancellation is needed to restore the sustainability of the debtor country concerned at completion point.

10.132 A country benefiting from Paris Club debt relief commits to seek at least similar restructuring terms from its other external creditors (other than multilateral creditors, which only provide debt relief to countries eligible for assistance under the HIPC Initiative). This applies to non-Paris Club bilateral creditors, who generally negotiate with the debtor country on a bilateral basis, as well as private creditors (suppliers, banks, bondholders, etc.).

10.133 The HIPC Initiative demonstrated the need for creditors to take a more tailored approach when deciding on debt treatment for debtor countries. Hence in October 2003, Paris Club creditors adopted a new approach to non-HIPCs: the "Evian Approach."

10.134 Paris Club agreements may include a debt-swap provision, within a limit usually set at 20 percent of commercial claims. Paris Club creditors on a bilateral basis conduct debt-swap operations. Since 1997, the Paris Club is also allowing debtor countries to prepay their debt. In recent years, the Paris Club offered new flexibility in this respect, allowing prepayments at market value of some claims.

2. Commercial bank debt relief

10.135 Multilateral debt relief is much more difficult to organize for commercial banks than for official creditors. While a national export credit insurer can negotiate on behalf of any individual creditor, there is no way to consolidate national commercial bank claims. Rather, each creditor bank must approve the resulting agreement and, for loan syndication, the number is often in the hundreds.

10.136 The pattern of negotiations was established in a 1970 agreement between the Philippines and its commercial bank creditors. Creditor banks form a committee (sometimes known as the London Club) of about a dozen people who represent the major creditor banks. The composition of the committee—which can be completely different from case to case—takes into account the nationality of the banks in the consortium so that the negotiations can make provision for the different tax and regulatory systems that affect banks of different countries. The committee negotiates an "agreement in principle" with debtor country representatives. After all creditor banks approve this agreement, it is signed. It takes effect when certain requirements are met, such as payment of fees and of arrears. As with the rescheduling of debts to official creditors, banks provide debt relief normally in the context of a debtor country's adjustment program supported by an IMF arrangement. Unlike with Paris Club creditors, there is no "cutoff" date.

10.137 Commercial bank agreements restructure principal; consolidation of original interest costs is rare. Like Paris Club agreements, consolidation of short-term debt is also unusual (but, when a major portion of arrears has arisen from short-term debt, there is often no option but to restructure). Among the initiatives for reducing the commercial debt burden was the Brady Plan (1989). This market-based debt-restructuring initiative provided a menu of options to the creditor banks. These included buybacks—the debtor government repurchases debt at a discount that is agreed upon with the creditor banks; an exchange of debt into bonds at a discount but offering a market rate of interest (discount bonds); and an exchange at par into bonds that yielded a below-market interest rate (interest-reduction bonds). The discount bonds and the interest-reduction bonds were fully collateralized by zero-coupon U.S. government securities for principal and partially collateralized for interest payments.

I. United Nations Conference on Trade and Development (UNCTAD)

10.138 UNCTAD is the focal point within the United Nations system for the integrated treatment of debt issues. Through its Debt and Development Finance Branch (DDFB), it engages in research and policy analysis as well as technical assistance.

10.139 UNCTAD is entrusted with the preparation of the United Nations Secretary-General's annual report to the UN General Assembly on the external debt problems of developing and transitional economies. This report analyses the latest trends and emerging issues and puts forward policy recommendations. UNCTAD also provides substantive support to the UN General Assembly deliberations of the agenda item on debt.

10.140 In addition, UNCTAD conducts, inter alia, research on the analytical framework for debt sustainability analyses, domestic debt, bond markets, as well as institutional arrangements for debt management.

10.141 UNCTAD provides selective advisory services to debtor countries in designing sustainable public debt strategies and related negotiations such as Paris Club debt renegotiations. DDFB also works toward promoting responsible sovereign lending and borrowing, and public debt risk management.

10.142 UNCTAD's DDFB also offers a broad range of technical assistance services to developing countries in strengthening their ability to effectively manage their public debt. This technical cooperation is provided by the Debt Management and Financial Analysis System (DMFAS) Program.

1. Overview of the Debt Management and Financial Analysis System (DMFAS) Program

10.143 UNCTAD's Debt Management and Financial Analysis System (DMFAS) Program has been successfully helping governments improve their capacity to manage debt since the early 1980s. By 2010, it has supported 66 countries and 102 institutions. As the debt situation of developing countries has evolved over the past three decades, the DMFAS Program has adapted its technical assistance to countries' changing debt management needs.

10.144 The DMFAS Program offers countries a set of proven solutions for improving their capacity to handle the management of public liabilities and produce reliable debt data for policymaking purposes. This includes its specialized debt management software, the DMFAS—which greatly facilitates the work of the debt office—as well as advisory services and training activities in debt management.

10.145 The products and services offered by the DMFAS Program are continuously updated in line with countries' new requirements and in accordance with best practices in debt management. They are shared with countries through technical cooperation projects, as well as through international and regional conferences and workshops. As part of the United Nations, the Program's technical assistance is available to all countries at their request. It is provided in Arabic, English, French, and Spanish.

10.146 The Program provides continuing support to DMFAS-user countries, beyond the completion of country project activities, including through its Helpdesk service.

10.147 The Program provides the following:

- Capacity-building through the debt management and financial analysis software (DMFAS) designed to meet the operational, statistical, and analytical needs of debt managers and bodies involved in elaborating public debt strategies, and training in its use;
- Capacity-building through the Program's advisory services, including needs assessments and advice on technical, administrative, legal, and institutional debt management issues, assistance in software installation and maintenance;
- Capacity building in debt management skills and through the Program's modules in debt data validation, statistics, and debt analysis.

10.148 Details on the DMFAS debt management system are provided in the annex to this chapter.

2. DMFAS advisory services

10.149 At the invitation of a government institution, UNCTAD will conduct a needs assessment of that institution's capacity to manage its country's debt. UNCTAD and the government will then work together on defining those areas of debt management that would be improved with the support of the DMFAS Program. All defined activities will be outlined in a technical cooperation project document and submitted to potential funding agencies. Project implementation will start on approval of the document by all parties. Through such a project, the Program gives advice, for example, on the installation and use of the DMFAS system, on its integration with other financial management systems, on database building, on debt strategies, on communication and information flows, financing techniques, credit analysis and debt renegotiation, among other areas. This advice will also continue after the completion of each project, through such services as its Help Desk support.

3. DMFAS training and capacity building

10.150 The Program offers a full range of training and broader capacity building services, ranging from functional and technical training on the DMFAS System, including on different types of debt instruments and production of a range of reports designed for different target audiences, through analysis and linkages with other systems. It also provides comprehensive capacity building modules in the areas of debt data validation, debt statistics and debt portfolio analysis. These modules are intended to support the government authorities, not only to acquire knowledge and skills in the respective areas, but also in applying these to develop defined outputs, which the government (usually the Minister of Finance and/or the Governor of the Central Bank) commits to continue production in a sustainable manner. These outputs are data validation calendars, debt statistics bulletins and debt portfolio reviews, and these are intended to apply the latest international standards.

10.151 A bottom-up approach is adopted in the delivery of these capacity building activities. This starts with assistance in the creation of a debt database (installation of the DMFAS software, training, registration of debt information, validation of debt data), followed by training in the generation and production of reliable debt statistics (including debt statistics bulletins), and followed by assistance in performing debt portfolio analysis (appropriateness of the debt portfolio composition) and in understanding the concepts of debt sustainability analysis. Training is delivered nationally and regionally.

4. UNCTAD's Debt Management Conference

10.152 Every other year, UNCTAD organizes an international conference on debt management. The Conference brings together representatives from governments, mostly from country capitals, international organizations, the private financial and legal sector, academia, and civil society. The Conference serves as a discussion forum for countries on many of the most pertinent issues in debt management and public finance, with its ultimate objective being to help developing countries manage their debt more effectively. This meeting also provides an excellent opportunity for debt managers and policy makers around the world to interact and share experiences.

5. Other activities

10.153 The DMFAS Program also supports other international organizations in developing capacity in debt management. One important initiative is the World Bank's Debt Management Facility (DMF). The two main products of this facility are the Debt Management Performance Assessment (DeMPA) tool, which is designed to assess a country's debt management capacity, and the Medium Term Debt Strategy (MTDS), an Excel-based tool designed to support countries in developing and updating their debt strategies.

10.154 UNCTAD is also providing comprehensive support to the INTOSAI Development Initiative (IDI), in its program of strengthening the capacities of Supreme Audit Institutions to conduct a public audit. This is delivered through a formal memorandum of understanding with IDI, through which the DMFAS Program is providing expertise to IDI to develop training material, to deliver comprehensive training to auditors of national supreme audit institutions, to review national draft audit plans, and to undertake related support to all these activities. The Program also participates in IDI debt management seminars and workshops, and the DMFAS software is also adapted to meet IDI requirements.

6. DMFAS and the *Public Sector Debt Statistics Guide*

10.155 DMFAS system is consistent with the *Public Sector Debt Statistics Guide*. Efforts have been taken to ensure that core conceptual foundations are consistent. This includes the areas of definition, coverage, valuation, present value calculations, classifications, and reporting:

- **Definitions**. All definitions of debt, public sector debt, and related terms are consistent.
- **Coverage**. DMFAS addresses most of the instruments included in this *Public Sector Debt Statistics Guide*. Some information on instruments, such as arrears due to suppliers, is not generally incorporated, but this can be done if the data are available.
- **Valuation**. Valuation of stocks and flows are consistent. Stocks are valued at end-of-period exchange rates, and transactions on the day of the transaction. Market valuation of the instruments is also possible.
- **Present Value**. Present value calculations are also incorporated into DMFAS, using the sets of currency-specific interest rates as required, such as CIRRs.
- **Classifications**. DMFAS also incorporates the all the classifications incorporated in the *Public Sector Debt Statistics Guide*, including by debtor sector, instrument, and maturity (original and residual). In addition, many other types of classifications included, including by creditor, guarantee status, and economic sector.
- **Reporting**. DMFAS provides a comprehensive set of reports, which are consistent with the core tables in the *Public Sector Debt Statistics Guide*. It also has a flexible reporting methodology which allows the user to customize reports, and generate a substantial set of reports, to meet the additional specific requirements of the institution/country.

J. World Bank

10.156 The World Bank collects and disseminates data on general government and the public sector debt. These data are collected and published quarterly. The data use classifications and definitions following this *Guide* and are consistent with those in other macroeconomic data: the *SNA*, *Balance of Payments and International Investment Position Manual*, *External Debt Statistics*, *Government Finance Statistics Manual*, *Handbook of Securities Statistics*, and *Monetary and Financial Statistics Manual*.

10.157 The World Bank's interest in public sector debt statistics is both analytical and operational. At the analytical level, the Bank is a leading international source of information and analysis on the economic situation of developing countries. Through the Government Debt Management Performance Assessment (DeMPA), the Bank assesses public sector debt management performance through a comprehensive set of performance indicators spanning the full range of government debt management functions. At the operational level, the lending and borrowing activities of the Bank demand a close monitoring of the overall financial situation of each borrower, such as debt-servicing capacity.

10.158 In 2010, the World Bank and IMF, with the endorsement of the Inter-Agency Task Force on Finance Statistics (TFFS), launched the public sector debt (PSD) database, which is available on the World Bank's Web site.[48] The primary sources for these public sector debt data are ministries of finance, treasuries, and central banks.

[48]See http://www.worldbank.org/qpsd.

10.159 The main purpose of the PSD database is to facilitate timely dissemination in standard formats of public sector debt data. By bringing such data and metadata together in one central location, the database supports macroeconomic analysis and cross-country comparison. Data on debt for general government are available and are essential for comparison with external debt data (that covers general government) and deriving domestic general government debt as the difference between total general government debt and the corresponding external debt.

10.160 The database is organized into five sets of tables on the following components of the public sector: budgetary central government, central government, general government, public nonfinancial corporations, and public financial corporations. The tables are designed to collect data by debt instrument, maturity, currency of denomination, and by residence of the creditor—consistent with the tables in Chapter 5 of this *Guide*.

10.161 The World Bank's public sector debt statistics website provides information on, and links to, complementary and related information sources, such as the Joint External Debt Hub,[49] Quarterly External Debt Statistics,[50] BIS banking and securities data, the IMF Coordinated Portfolio Investment Survey, annual *Government Finance Statistics (Government Finance Statistics Yearbook)*, and *International Financial Statistics*.

[49]See http://www.jedh.org.
[50]See http://www.qeds.org.

Annex: Debt Recording, Debt Management, and Financial Analysis Systems

This annex provides details of the Commonwealth Secretariat's software suite for debt management and UNCTAD's debt management and financial analysis system (DFMAS).

1. The Commonwealth Secretariat Debt Management Solutions (CS-DMS)

10.162 The Commonwealth Secretariat's Debt Management Solutions (CS-DMS) comprises a suite of three software products: CS-DRMS, CS-SAS, and CS-PDAT.[51] In 2011, the software has been deployed in 60 Commonwealth and non-Commonwealth countries, across more than 100 sites in finance ministries, central banks, treasuries, accountant general offices, and provincial governments.

a. Major functionalities

i. CS-DRMS

10.163 CS-DRMS is an integrated tool for recording, monitoring, analyzing, and reporting public and publicly guaranteed debt. As well as providing a comprehensive repository for all types of external and domestic debt (including securities) and guarantees on an instrument-by-instrument and aggregate basis, it allows users to record and manage private sector debt and grants. The system can be used across the entire cycle of debt operations and transactions within a country starting from loan negotiation/issuance of a security until its redemption.

10.164 The system has been designed with the user in mind. It has a user-friendly graphical interface that allows the debt manager to review the government's borrowing and associated transactions quickly and easily, through various aggregations (see Figure 10.1).

10.165 CS-DRMS adheres to international standards and conventions in the way that debt data are recorded, including aspects of coverage compilation, accounting, classification, valuation, and reporting. This makes the system compliant with the recording and reporting requirements as prescribed by the debt statistics compilation manuals (this *Guide* and *the External Debt Statistics: Guide for Compilers and Users)* developed under the aegis of the Inter-Agency Task Force on Finance Statistics.

10.166 CS-DRMS can be configured easily to support specific debt management operations and provides a number of controls and validations to ensure data is stored accurately and safely. Its holistic approach offers a wide range of functionalities and a robust, secure, and open architecture allowing interfaces with third party systems.

10.167 The system is continually being enhanced to reflect changes in debt management, creditor practices, debt reporting standards, and technology to stay in tune with the evolving changes and also to cater to the varying needs of client countries. The main functions of CS-DRMS are summarized here and in Table 10.1.

Debt recording

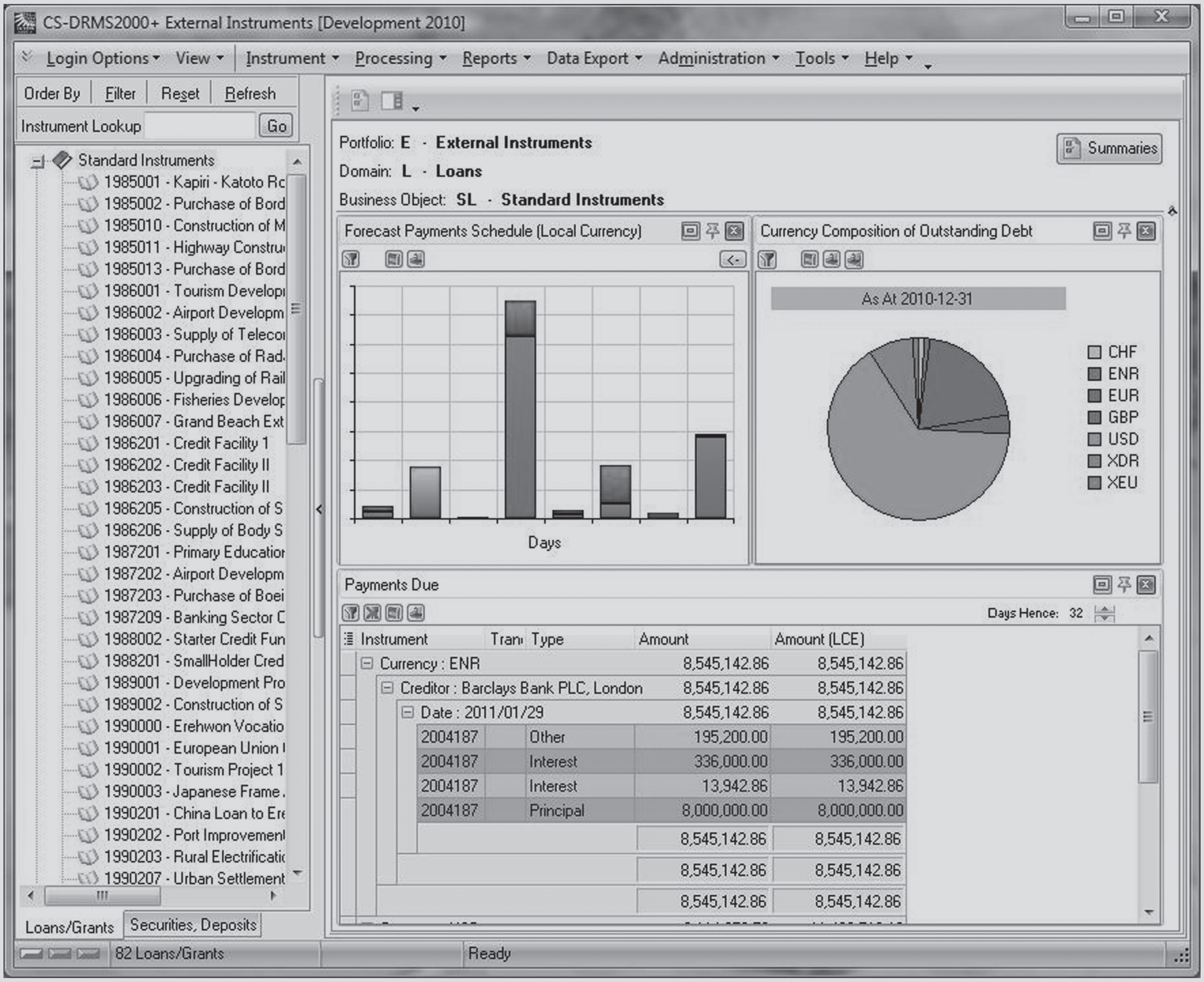
10.168 CS-DRMS is an integrated system that records various types of flows—external and domestic debt, grants, and government lending—for day-to-day administration and management of various debt operations. It has a comprehensive loans module that allows for the recording of a wide range of official and commercial instruments, including short-term debt and private sector debt. Its comprehensive securities module allows for the recording of various types of government securities including Treasury bills, bonds (fixed, floating, discount, and indexed instruments), promissory note, and commercial papers. Sovereign bonds issued on international capital markets can also be recorded in CS-DRMS.

10.169 Forecasts of debt-service payments are generated based on instrument characteristics and can be compared with actual transactions in the system. Based on these data, the system automatically updates the outstanding debt stocks and projected flows, including any arrears.

10.170 A dedicated disbursement module offers facilities for recording and tracking various types

[51]CS-PDAT will be released by the end of 2011.

Figure 10.1. The Commonwealth Secretariat's CS-DRMS



of disbursements (for example, reimbursement, cash advance, direct payment) for project implementation. The module can be used to capture the government chart of accounts and expenditure line items and produce reports in budget and chart of accounts format.

Debt reporting

10.171 CS-DRMS has a fully customizable and flexible reporting facility. More than 100 standard reports are made available within the system and these meet most countries' needs relating to operational, analytical, and statistical functions. Where additional reports are required, users are able to create their own reports through a user-friendly reporting wizard and an advanced reporting tool.

10.172 The system fully complies with the international reporting requirements of the SDDS, GDDS, QEDS, Debtor Reporting System (DRS), and Public Sector Debt (PSD) Statistics Database initiatives under the IMF and World Bank. In addition, CS-DRMS has a number of in-built reports complying with the templates prescribed under the various data dissemination initiatives. The system also provides automatic links to the World Bank Debtor Reporting System and GDDS-QEDS.

Debt analysis

10.173 CS-DRMS has comprehensive analytical features that allow easy analysis of the entire debt portfolio. The analysis module provides a number of port-

Table 10.1. Major Functions of the Commonwealth Secretariat Debt Recording and Management System (CS-DRMS)

Recording and management	Reporting	Analysis	Other functions
• Maintain an inventory of all external and domestic debt instruments (and grants), including: • public sector debt and guarantees • short-term and private sector debt • restructuring agreements, including rescheduling • Record all of the terms and conditions of instruments, including a copy of any related documentation • Record other relevant information such as exchange rates, interest rates, and macroeconomic data • Forecast debt-service payments, both by instrument and in aggregate terms, with and without future disbursements • Record actual transactions of debt service and disbursements on a transaction-by-transaction basis • Identify debt in arrears and calculate penalty payments • Monitor loan and grant utilization and disbursements • Record and monitor guarantees, lending, and on-lending • Manage the portfolio through restructuring and using derivatives	• Fully adheres to international debt data compilation standards (for example, the guides on public debt statistics and external debt statistics) • More than 100 standard reports to meet various reporting requirements for operational, analytical, and statistical functions • In-built reports based on the international reporting templates of SDDS, GDDS, Debtor Reporting System, and Public Sector Debt • Provide information and reports on any instrument or class of instruments • Easy generation of customized reports to comply with any other reporting requirements • Transfer data electronically to the World Bank's Debt Reporting System and GDDS-QEDS • Export data for use in other analytical tools such as the IMF-World Bank's MTDS toolkit and the DSA templates for low and middle income countries	• Perform sensitivity analysis on interest and exchange rate variations under various scenarios • Test the implications of new borrowings, based on different assumptions of currencies, interest, and repayment terms • Evaluate different loan options • Evaluate different proposals for refinancing and rescheduling of loans and compute debt relief requirements • Combine CS-DRMS debt data with exogenous economic data to project critical debt indicators, on both a nominal and present value basis • Compute various cost and risk indicators and evaluate the exposure to different types of risks (for example, exchange rate, interest rate, rollover, refinancing)	• Validation tools to ensure database integrity and accuracy • Integrate front, middle, and back office functions via the database and security management options • Reduce operational risk by controlling access and performing functions such as backup and restore • Easy integration with other financial management information systems to enhance efficiency and minimize operational risk **Future developments** • Web-enabled for online recording and reporting • Full capabilities for accrual accounting and market valuation • Enhanced capabilities for assessing and monitoring contingent liabilities

folio analysis functions to summarize the characteristics of the debt portfolio including the creditor profile, currency composition, maturity profile, types of interest and interest rates, and an array of risk indicators.

10.174 Users can create their own projections of macroeconomic variables and borrowing scenarios to analyze their impact on the portfolio. The key debt ratios are reported as standard in the analysis but other ratios can be defined to meet specific country needs. The results of the analysis are presented in a graphical format and can be exported to third party applications, such as Microsoft Excel, for further analysis and manipulation. CS-DRMS also has facilities to generate data as in-built reports in the prescribed templates (both low income and market access country templates) for debt sustainability analysis under the DSA-DSF framework and also for the Medium-Term Debt Strategy (MTDS) toolkit as part of the MTDS framework, both developed jointly by the IMF and World Bank.

Debt restructuring

10.175 CS-DRMS incorporates comprehensive facilities to manage debt restructuring. In addition to handling refinancing, buy-backs, and derivatives (embedded options, swaps, etc.), the system also has specialized functionality for restructuring through the

London Club and Paris Club, including through the HIPC Initiative and MDRI.

Integration with financial management information systems

10.176 Beyond interfaces to reporting portals and established debt management tools, CS-DRMS can be linked to integrated financial management information systems (IFMIS). Besides providing the technical solution for such integration in any particular client country, the Secretariat also supports countries in analyzing their business processes to maximize the efficiency gains from such integration.

ii. CS-SAS

10.177 CS-SAS helps debt offices involved in the auction of securities to manage every stage of the auction process, from the day of notification until payment is received from successful bidders and allotment letters are produced electronically. The major capabilities of the system include:

- Auctioning different types of instruments, including Treasury bills and bonds;
- Allows various auction types, including uniform price and bid price;
- Allows both yield based and price based bidding processes;
- Process both competitive and noncompetitive bids;
- Recording of payments for successful bids;
- Commission payment to primary dealers;
- End-to-end workflow management; and
- Links to CS-DRMS/other systems for transferring successful bids.

10.178 CS-SAS provides a number of operational reports for auctioning, which are further complemented by various analytical reports to analyze data from past auctions. The bid-cover and yield movements of past auctions are represented in a graph that compares the notified, bid, and allotted amounts. The progress of auctions can be monitored in real time whilst the performance of different auctions can be compared (see Figure 10.2).

10.179 The Secretariat also offers a Web-based bidding system that allows bidders to place bids electronically and manage their bids in a secure online environment (see Figure 10.3).

iii. CS-PDAT

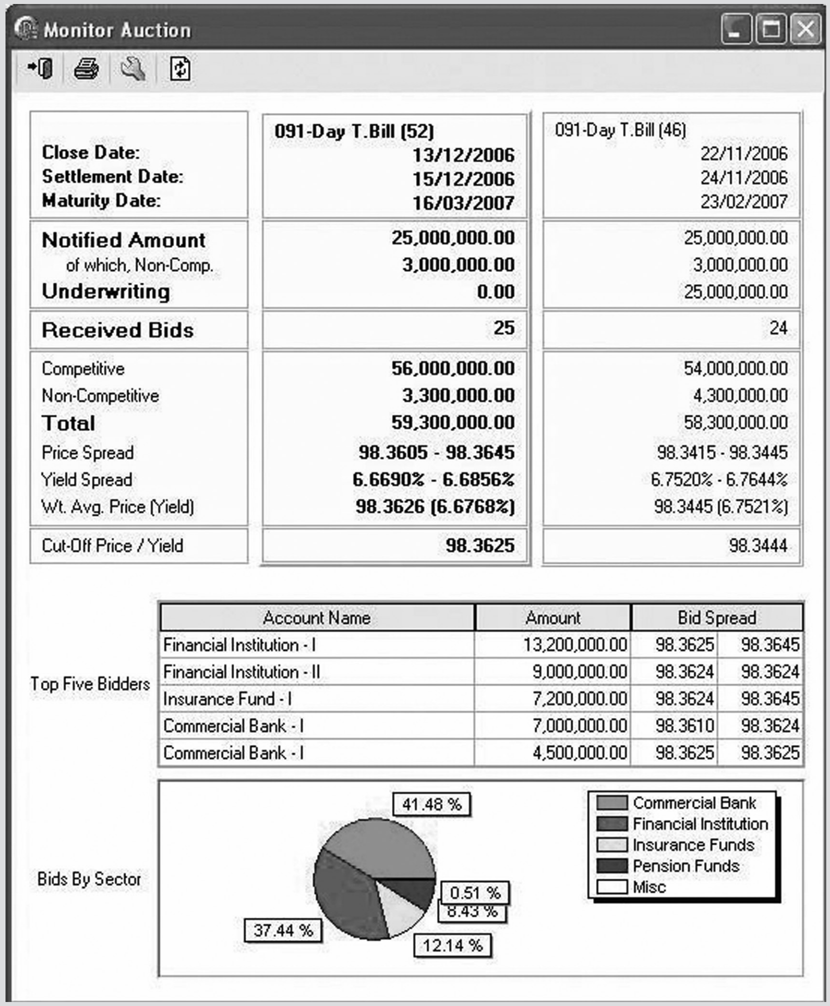
10.180 CS-PDAT is a specialized middle office/front office decision support system designed to enable public debt managers to prudently manage their debt through a cost and risk focus. The tool is based on an integrated framework for the development and implementation of a debt management strategy and enables debt managers to develop and assess the costs and risks of alternative borrowing strategies (see Figure 10.4). The tool also enables debt mangers to implement and monitor their desired strategy through the integration of cash and debt management, development of an annual borrowing plan including an issuance calendar and liability management operations (for example, buybacks, exchanges, embedded options, restructuring, and swaps). Whilst part of CS-DMS, it has been designed to interface with any debt recording software for importing the debt portfolio data.

10.181 The tool gives debt managers the ability to carry out a range of analysis, from basic to advanced, on the entire public debt portfolio. It focuses on the costs and risks associated with different borrowing strategies under different scenarios for analyzing alternative strategies. Various market risks and refinancing risks are extensively analyzed through the application of the CS-PDAT system.

10.182 Once the desired strategy is selected, CS-PDAT allows the debt manager to implement the strategy through the development of an annual borrowing plan, including the simulation of an issuance calendar for government securities. For the development of the domestic debt market, the system specifically supports the building up of benchmark bonds through reopenings of existing securities.

10.183 For implementing a specific strategy within CS-PDAT, various liability management operations, such as buy-backs, exchanges, prepayment, prefinancing, swaps, and the exercise of embedded options, can be analyzed through its impact on the portfolio. Such liability management operations can also be included as part of the annual borrowing plan for comprehensive debt management planning. The system will also trigger the need for certain liability management operations based on any limits on refinancing risk stipulated by the debt manager.

Figure 10.2. The Commonwealth Secretariat's CS-SAS Auctioning System



10.184 Finally, the system incorporates lending strategies and operations to allow a holistic analysis of any debt management strategy within an asset-liability risk management framework.

b. *System security*

10.185 The CS-DMS suite incorporates fully user-configurable multilayer security features to meet individual country requirements. The security setup allows for configuration of workgroups and roles to match the country's own setup, such as the front, middle, and back office model. The users can be assigned appropriate roles to restrict their access to screens and reports as per the security setup.

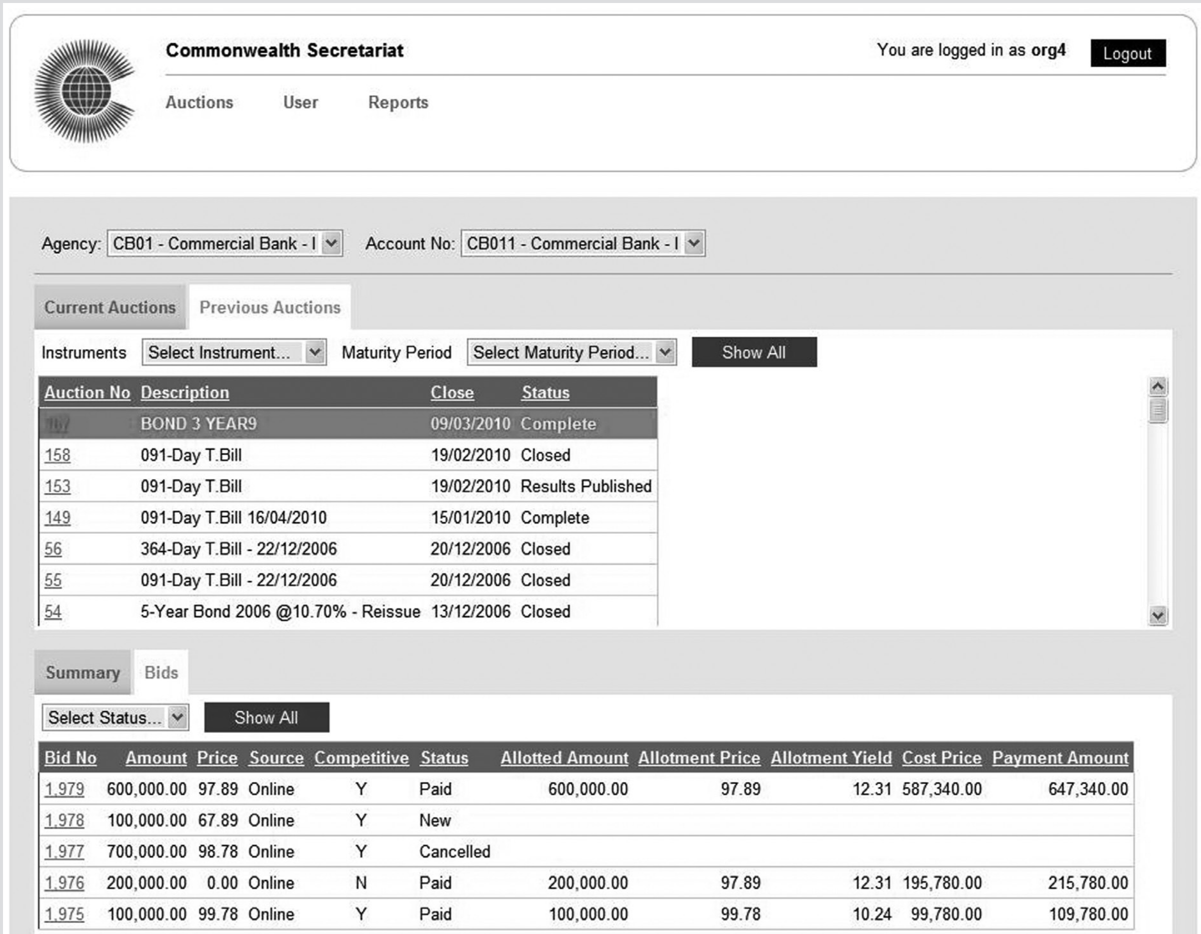
c. *Technological characteristics*

10.186 The software products operate on both Oracle and Microsoft SQL Server as backend databases. The software is available in both English and French, and has language-independent design to facilitate translation into other languages.

10.187 The software has a Help facility, both on-line and in hardcopy, that is supported by a frequently asked questions section on the DMS website and hotline support from the technical staff located in the headquarters in London.[52]

[52]For further information, see http://www.dsdrms.org.

Figure 10.3. The Commonwealth Secretariat's Online Bidding System



2. The DMFAS debt management system of UNCTAD

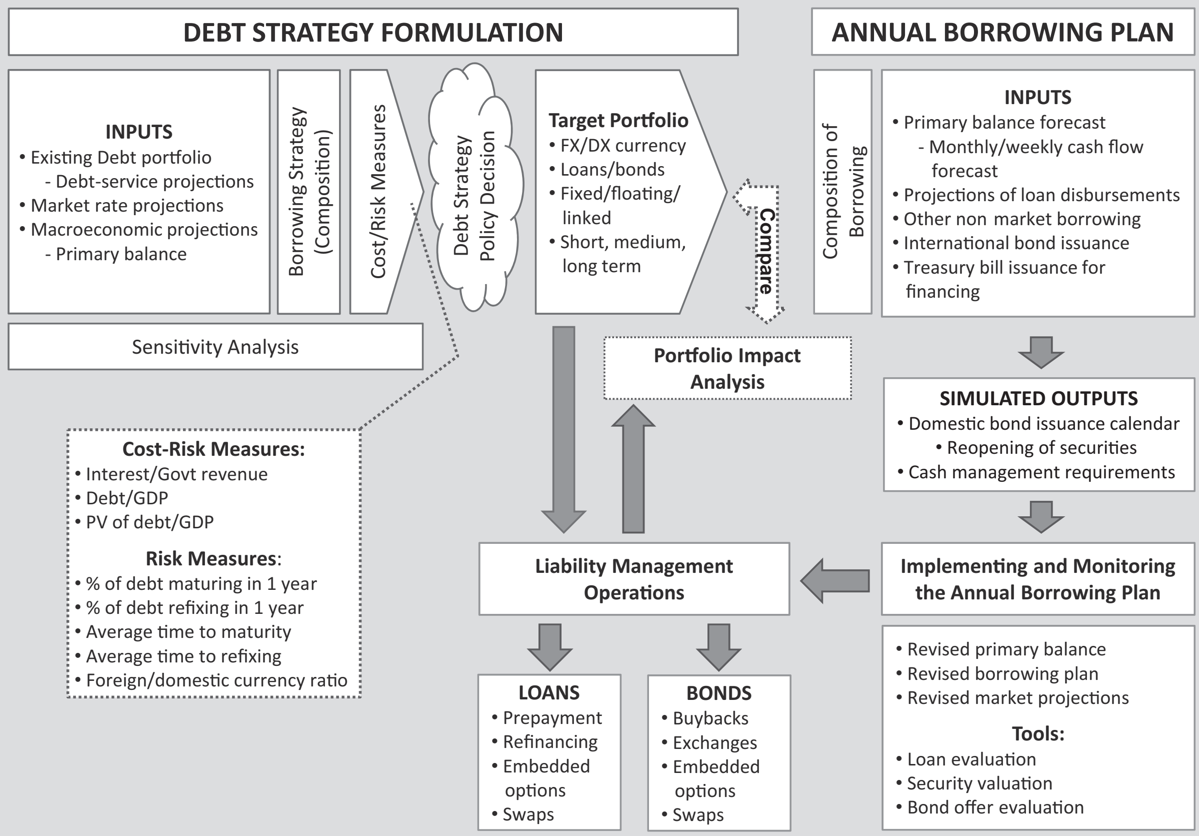
a. Introduction

10.188 The DMFAS is specialized debt management and financial analysis software, developed with, and for, countries. It can be used for the management of public and publicly guaranteed short- and long-term debt (external and domestic), general agreements, grants, private sector nonguaranteed external debt, as well as on-lending operations and debt reorganization. It is regularly enhanced so that it remains current with, and helps establish, best practices in debt management. In order to improve overall public financial management, the DMFAS is easily linked with other financial management systems.

10.189 DMFAS 6 was launched in November 2009. DMFAS 6 contains a Web interface (portal) that provides centralized access to all DMFAS modules, information, applications, data, and links that are commonly used by its users. It also contains an online help facility. The DMFAS interface can be easily customized, modified and translated. The standardized version is available in five different languages—English, French, Spanish, Arabic, and Portuguese. It can be used both in a single-user and in a networked environment (intranet or extranet). User profiles and access privileges are defined in the system's security module. The main features of DMFAS 6 are shown in Figure 10.5.

10.190 All modules can be accessed easily and independently, according to the user's customized needs. They are organized to follow the typical operational life cycle of a debt agreement (Administration, Mobilization, and Debt Service) complemented by Negotiation (for debt securities), Reports, and Analysis functions. These cover the comprehensive needs of a debt management

Figure 10.4. The Commonwealth Secretariat's CS-PDAT Framework



office, whether they are front (issuance of debt securities), middle (analysis), or back office (registration and management of operations) tasks.

b. Modules of DMFAS 6

i. Negotiation

10.191 Negotiation in DMFAS refers to the first phase in the life cycle of a debt instrument. It contains an auctions module. This module is used to record bids on bills or bonds on a single price/yield basis (noncompetitive auction) or multi-price/yield basis (competitive auction). Both successful and unsuccessful bids are maintained in the DMFAS database for a defined period in order to monitor investor and bidder participation in the primary market. The data can be sent automatically to the Debt Securities module where it appears in the Subscriptions data for the instrument. The data on the transactions is used to calculate the pricing and valuation of the instrument, such as the clean price and dirty price (see Chapter 2, paragraph 2.119).

ii. Administration

10.192 Under Administration, the user can register general and detailed information for any type of debt agreement by accessing the relevant module for loans, debt securities, private nonguaranteed external debt, short-term debt, grants, general agreements, debt reorganization, on-lent loans, as well as reference files.

10.193 In the Loans module, general information is recorded about a loan agreement such as the parties, the loan ID, and signature. Specific information such as the principal, interest, and commission terms is also recorded. Each loan recorded includes its own set of tranches, with each tranche representing a distinct part of a loan as defined by the creditor in the detailed payment schedules sent to the debtor. Each individual

Figure 10.5. Main Features of UNCTAD's Debt Management and Financial Analysis System (DMFAS), Version 6

amortization defined by the creditor is represented by the individual tranche in the system.

10.194 The Debt Securities module is used to register all types of debt securities from short-term to long-term. It is divided into four main categories of instruments:

- Money market instruments (discount, interest bearing);
- Bonds and notes (zero-coupon, fixed-rate, floating-rate, stepped-annuity, perpetual, other);
- Promissory notes (discount, interest bearing); and
- Other securities.

10.195 Private, nonguaranteed debt and short-term debt can be entered on an aggregate level, either manually or imported from other applications, such as a spreadsheet.

10.196 The general agreements module is designed to capture data about agreements that cover several individual instruments. A link can be set up between a general agreement and the agreements arising from it. There are various types of general agreements of which the most common are frame agreements as well as those relating to reorganization (for example, Paris-Club Agreed Minutes).

10.197 The reorganization module can handle all types of debt reorganization including: refinancing, rescheduling, forgiveness, debt conversion and pre-payments (buybacks). This module handles all phases of the reorganization and maintains a relationship between the old debt and new debt.

10.198 The module for on-lent loans records loans borrowed by a government on behalf of public sector entities. The direct loan between the creditor and the government is recorded in the Loans module while the on-lent loan between the government as creditor and the public corporation is registered in the on-lent module.

10.199 Reference files are the starting point for work in DMFAS. They contain detailed information which can be referred to from many DMFAS windows. They include essential and optional data about the participants, exchange rates, budget lines, and financing relating to an agreement.

iii. Mobilization

10.200 DMFAS records all types of individual transactions related to loan drawings and grant drawings as well as debt security subscriptions.

10.201 In DMFAS, actual[53] loan drawings can be recorded in cash, in kind, or as a direct payment. Drawings take the form of a direct payment when the beneficiary (or debtor of a loan) requests the creditor to pay a third party directly from the loan. When an actual drawing is recorded, DMFAS automatically reduces the undisbursed amount of the relevant loan tranche, automatically recalculates estimated drawings of the tranche, and recalculates the amortization table. For grant drawings, the process is similar to that of loans.

10.202 In DMFAS, a subscription is the payment made to the issuer of a debt security by the subscriber, in the form of funds, goods or services. Users can record subscriptions according to the level of detail required by their institution. DMFAS provides two ways to enter subscriptions: through the Subscriptions module or the Debt Securities module.

iv. Debt Service

10.203 DMFAS 6 contains two debt service modules, for loans and for debt securities. They are intended for debt-service operations relating to principal and interest, commissions, and penalty interest.

10.204 DMFAS records and monitors the different types of debt-service operations: payments, nonpayments (i.e., arrears), prepayments (for loans), buybacks (for debt securities), rescheduling, forgiveness, swaps, and stripped securities. All debt-service operations can be entered and/or tracked in any currency.

10.205 This module also contains a budget period allocation submodule, which is intended for institutions that wish to link debt-service payments to their budget system.

v. Reports

10.206 The ultimate objective of recording data in DMFAS is to produce reports that are accurate, complete, and compliant with international standards. DMFAS can generate a wide range of standard and customized reports. These include aggregated or detailed reports on loans, debt securities, grants, projects, general agreements, reorganization agreements, and reference files.

10.207 Standard reports are predefined reports delivered with the system. These are reports that have already been created by the DMFAS Program. This category of reports includes operational reports as well as analytical and management reports.

10.208 Standard operational reports include reports on loans, debt securities, projects, general agreements, grants, and reference files. Analytical and management reports consist of reports on debt status, reorganization, World Bank reporting, and general agreements involving revolving credits.

10.209 User-defined reports are reports created and generated by DMFAS users in any given country. Also categorized as either operational or analytical and management, these cover data validation, debt status and statistical bulletins. Data validation refers to predefined reports that allow checking the accuracy and consistency of the data recorded in the DMFAS database. Debt status and statistical bulletins are reports on external and domestic debt that generally adhere to international standards.

vi. Analysis

10.210 The Analysis modules offer powerful tools for middle-office debt managers to determine the sustainability of their debt portfolio and to build debt strategies. They cover: debt ratios, financial indicators, sensitivity, debt portfolio analysis, a debt sustainability interface, and a risk model(s) interface.

10.211 The Debt Ratios module in DMFAS covers public sector debt, external public sector debt, and domestic debt. The ratios include, among many others:

- Public Sector Debt/Gross Domestic Product (or PSD/GDP);
- External Public Sector Debt/Exports, at nominal and present value (or XPSD/XGS); and
- Domestic Public Sector Debt/Public Sector Debt (or DPSD/PSD).

10.212 The Financial Indicators module refers to the calculation in DMFAS of average terms and the grant element for a selected group of instruments; the results of the calculation appear in the reports. Average terms relate to the average interest rate, grace period, and life of a group of loans or debt securities.

[53]There are two distinctions in "actual" drawings: "actual" as opposed to "estimated" drawings, and "actual" as opposed to drawings from "reorganized" instruments.

10.213 DMFAS allows the user to perform exchange rate and interest rate sensitivity. This type of analysis is used to make projections about how changes in interest rates and/or exchange rates impact a country's debt service and, consequently, its debt sustainability. It can be used to build scenarios or "what if" simulations for evaluating different refinancing strategies.

c. Audits and evaluations

10.214 The system provides comprehensive information to support audits and other types of evaluations. It provides details on each instrument and transaction and audit trails are incorporated within the system. Supporting documentation and backups are always recommended as part of the DMFAS implementation process.

d. Linkages with other systems

10.215 The DMFAS can easily be linked with any other system. A standard interface is available for linkage with Integrated Financial Management Information systems (IFMIS), in particular for streamlining operations with budgeting and accounting, and has been implemented in a number of countries.

10.216 Interfaces exist between the DMFAS system and all standard analytical tools including the debt sustainability model (DSM Plus), Medium-Term Debt Management Strategies (MTDS), DSF, and risk models. The DMFAS Program is also planning to build linkages with Aid Management systems in the near future.

e. Technical characteristics

10.217 DMFAS 6 works on any standard Internet Browser. It uses Oracle's Relational Database Management System (RDBMS) and was developed using Java and ORACLE Development Tools.