PART IV

Work of International Agencies

17. External Debt Statistics from International Agencies

Introduction

17.1 External debt and related statistics are disseminated by four international agencies:

- The BIS, from its locational and consolidated International Banking Statistics (creditor reporting) and International Securities Statistics (based on market information), in the BIS *Quarterly Review*;
- The IMF, according to balance of payments and IIP (*BPM5*) framework, in *International Financial Statistics* and the *Balance of Payments Statistics Yearbook*;
- The OECD, through its Creditor Reporting System for the external debt of developing and transition countries, in *External Debt Statistics*; and
- The World Bank, through its Debtor Reporting System for the external debt of low- and middle-income countries, in *Global Development Finance*.

17.2 These collections have developed for different reasons and for different purposes. This chapter outlines the BIS, IMF, OECD, and World Bank reporting systems, as at the end of 2000, and compares the data disseminated by the BIS, OECD, and World Bank with that from the IIP of the IMF. Also, this chapter provides some explanations for the differences between the OECD and World Bank data, and describes the quarterly release, *Joint BIS-IMF-OECD-World Bank Statistics on External Debt*.

Bank for International Settlements

17.3 The BIS produces two main sets of data: the International Banking Statistics (IBS) and the International Securities Statistics. These data are available at *http://www.bis.org/statistics/index.htm*, and published quarterly in the BIS publication, *Quarterly Review*, and in the *Joint BIS-IMF-OECD-World Bank Statistics on External Debt* (see below).

International Banking Statistics

17.4 Table 17.1 shows the coverage of the BIS International Banking Statistics. The IBS system has two main sets of data.[1] The first, which was developed in the late 1970s as a by-product of the need for monitoring overall market developments, is based on the country of location, or residence, of creditor banks (termed locational statistics). The second, which was introduced in the wake of the Latin American debt crisis in the early 1980s and was therefore explicitly designed to measure credit risk, is based on the country of origin, or nationality, of creditor banks. Its underlying principle is the worldwide consolidation of the outstanding exposures of reporting banking institutions. While the locational statistics have been available on a quarterly basis since the inception of the system, the reporting frequency of the consolidated data increased from semiannual to quarterly in 2000.

17.5 Although in both sets of statistics debtor counterparties are identified according to their country of residence, regardless of the location of the ultimate guarantor of the borrowed funds, only the locational banking statistics are consistent with the IIP framework. First, creditors are also identified according to their country of location and, therefore, reported by the host lending country (as opposed to the home country of the head office in the case of the nationality/consolidated statistics). This approach permits a statistical reconciliation on a country-by-country bilateral basis. Second, the

[1]See BIS (2000a). Although the BIS also collects data on syndicated loan facilities, this information cannot be used for measuring external debt. First, facilities may be used as a backup for other types of fund-raising and may therefore remain undrawn or only partially used. Second, in some instances the funds are used to replace past banking debt, without therefore entailing any increase in borrowers' debt. Third, syndicated loans are but one of the various forms of international bank lending. Thus, whereas syndicated loan data may help to assess current market conditions, they cannot be used to measure external debt.

Table 17.1. Coverage of BIS International Banking Statistics

Basis for Defining Creditor	Basis for Defining Debtor	Available Breakdown
Residence/location	Residence	Sector, currency, instrument
Nationality/consolidated	Residence	Sector, maturity
Nationality/consolidated	Nationality	None

breakdown by instrument—namely, between loans and debt securities holdings—comes close to the IIP distinction between portfolio and other investment positions. Third, the currency breakdown makes it possible to derive flows from stock data, which can be used as a proxy for measuring balance of payments transactions.[2] Also, there is a sectoral breakdown between banks and nonbanks. Keeping in mind that domestic debt compilers face difficulties reporting comprehensively on domestic nonbank financial transactions, this breakdown is particularly useful to national debt compilers for comparative or estimation purposes.[3]

17.6 In contrast, the nationality/consolidated statistics are not consistent with the IIP framework. Their main objective is to measure the credit risk faced by reporting institutions, with the reporting on a worldwide-consolidated basis being the main underlying principle. Consolidation implies that the country exposure of individual reporting institutions covers that of their affiliates in all countries, including in the debtor country itself. Also as part of the process of consolidation, positions between the related offices of the same banking groups (intrabank positions) are netted out, which eliminates a number of cross-border positions. Finally, country exposure under this reporting system includes local claims denominated in foreign currencies, which clearly fall outside the scope of balance of payments statistics.

17.7 At the same time, the BIS nationality/consolidated statistics provide an insight into some important categories of countries' external debt not available elsewhere. Prime among these is short-term debt (with a remaining maturity of up to one year), which had not been the original focus of debtor reporting systems. Another important piece of information is the sectoral breakdown (banks, the public sector, and private nonbanks). Moreover, as from end-June 1999, the reporting system includes a reallocation of claims according to the country of domicile of the guarantor, either the head office of the borrowing entity itself (for branches) or of borrowed funds with explicit (legally binding) guarantees—so-called "ultimate risk" data. Also included, in principle, under guarantees is collateral that is liquid and available in a country other than that of the borrower; that is, 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. This reclassification from immediate to ultimate counterparties will therefore exclude claims with implicit guarantees, or those perceived as such, as is the case of independent banking or corporate subsidiaries (unless explicitly covered by the head office).

17.8 As part of the BIS consolidated statistics, information is available on certain potential claims that do not appear on the balance sheet ("undisbursed credit commitments"). Such off-balance-sheet exposures include legally binding commitments to provide funds, such as the drawdown of loans according to a predefined calendar and the undrawn part of credit lines. Unfortunately, the heterogeneous nature of items covered by the definition (which may, for instance, include certain guarantees) might limit the use of this category for debt-measurement purposes.

17.9 The introduction of data on exposures to ultimate counterparties does not aim to replace those on exposures to immediate counterparties, but to provide a useful complement for the purpose of evaluat-

[2]Changes adjusted to exclude the impact of currency movements on stock data using average exchange rates for the period under consideration can only serve to approximate actual transactions.

[3]See also IMF (1992), pp. 54–62.

Table 17.2. Coverage of BIS International Security Statistics

Basis for Defining Creditor	Basis for Defining Debtor	Available Breakdown
Residence	n.a.	Maturity, currency, instrument, sector
Nationality	n.a.	Maturity, currency, instrument, sector

ing country 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 explicitly recommended that banks calculate their country exposure on both bases (dual exposure measurement).[4] The ultimate risk exposure tends to provide a better measure of the ability of creditors to recoup their claims.

International Securities Statistics

17.10 Table 17.2 shows the coverage of the BIS International Securities Statistics, which are derived from a database containing detailed information about all issues of international securities,[5] which are obtained from various commercial market sources. Each individual issuer of securities is assigned two country fields. 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, debt data are available on both a residence and a nationality basis. However, since holders of debt securities are difficult to identify (not least because international bonds are generally bearer securities), there is no equivalent classification for creditors. As a result, no allowance is made for international securities purchased by residents of the debtor country. At the same time, the fact that only international securities are reported means that domestic securities purchased by nonresidents are not covered by the reporting system.

[4]See Basel Committee on Banking Supervision (1982). Also, in this context and as mentioned in Chapter 12, the collection of semiannual statistics on open positions in the global over-the-counter (OTC) derivatives market was introduced by the BIS in June 1998. However, these data are not available with a country-by-country breakdown of counterparties.

[5]International securities issues are defined as those raised outside the debtor country itself, whether in the international bond (formerly Eurobond) market or in foreign markets, such as the Yankee bond market.

17.11 The statistics comprise four types of basic information, pertaining to individual quarters: announcements of new issues, completions of new issues, net new issues (corresponding to the difference between completed issues and redemptions), and end-quarter stocks. The nationality and residence of issuers are readily available for these four types of basic information, as are the maturity breakdown (remaining maturity) and the sectoral breakdown. In addition, computer programs have been developed to read and aggregate individual issues to produce data such as original maturity and type of issues.

17.12 When aggregating the international banking and securities statistics for the purpose of measuring external debt, the breakdown of the locational (but not the consolidated) banking statistics into bank loans and securities holdings should in principle enable double counting in debt securities to be eliminated. However, the banking data include holdings of an unknown volume of securities issued on local markets (as opposed to international issues), which can be significant and/or volatile in some instances. As a result, the actual size of the overlap between the international banking and securities data cannot be fully ascertained.

International Monetary Fund

17.13 In the field of external debt statistics, the IMF collects and publishes annual and quarterly data on the IIP. These data are published in the monthly *International Financial Statistics* (*IFS*) publication, and in the annual *Balance of Payments Statistics Yearbook (BOPSY)*. Data on the IIP were first published in *BOPSY* in 1984. The recommended concepts for the measurement of the IIP are outlined in *BPM5*. The concepts are consistent with the *1993 SNA*, and hence with the concepts introduced in this *Guide*. At the time of writing, data were available for 63 countries.

17.14 The IIP is a measure of the stock of a country's external financial assets and liabilities at one moment in time, such as year-end.[6] In other words, the IIP is a statistical statement of the value and composition of the stock of an economy's external financial assets (that is, the economy's financial claims on the rest of the world) and the value and composition of the stock of an economy's liabilities to the rest of the world. The financial items that comprise the position consist of claims on nonresidents, liabilities to nonresidents, monetary gold, and SDRs. In relation to the balance sheet (as delineated in the *1993 SNA*) of an economy, the net IIP (the stock of external financial assets minus the stock of external liabilities) combined with an economy's stock of nonfinancial assets comprises the net worth of that economy.

17.15 The position at the end of a specific period reflects financial transactions, valuation changes, and other adjustments that occurred during the period and affect the level of assets and/or liabilities.[7] Because of the consistency of conceptual approach, the financial transactions are those recorded in the balance of payments. The valuation changes in the IIP are holding gains and losses arising from market price changes of such instruments as equities and debt securities, as well as from exchange rate changes. In nominal value terms, changes in the market price of a debt instrument do not affect the nominal amount outstanding. The other adjustments item, which is equivalent to "other changes in volume" in the *1993 SNA*, are changes that are not transactions or valuation changes, but items that affect the levels of assets and liabilities, such as reclassifications.

17.16 Thus, the IIP provides a framework that allows transactions in external debt, such as disbursements and repayments of loans, the accrual of interest costs, etc., that are recorded in the balance of payments to be related to changes in outstanding positions in external debt liabilities, as recorded in the change in the IIP between reporting periods. Because stock levels are sometimes utilized in the determination of investment income receipts and payments in balance of payments accounts, consistent classification and valuation throughout the income category of the current account, the financial account, and the position components allows for meaningful analysis of yields and rates of return on external investments. In addition, the reconciliation between the IIP and the rest-of-the-world balance sheet in the national accounts provides a framework for analyzing developments in the IIP in the context of the financial behavior of all institutional sectors of the economy.[8] These various reconciliations support debt analysis work.

Organisation for Economic Co-operation and Development

17.17 The OECD collects two sets of data that include information on external indebtedness:

- Aggregate information on official and officially supported (that is, guaranteed or insured by the official sector) export credits, and individual transactions data on all other official loans from the Creditor Reporting System (CRS)—these data are published in the OECD publication, *External Debt Statistics*, and the *Joint BIS-IMF-OECD-World Bank Statistics on External Debt* (see below); and
- Aggregate data on flows of aid loans and grants, other official flows, private market transactions, and assistance from nongovernmental organizations to each recipient country and recipient countries combined, from the Development Assistance Committee (DAC) annual questionnaire—these data are published in *Geographical Distribution of Financial Flows to Developing Countries* and in the *Development Co-operation Report*.

17.18 The main external debt publication of the OECD is the annual publication *External Debt Statistics*, which provides data on debt for developing and transition economies. These data are based largely on creditor sources, with the CRS data on loans (including export credits), the BIS international banking and security statistics, and the World Bank's data on multilateral lending providing the core data series. Some additional debtor data are obtained from the World

[6]For a full description of the IIP, see Chapter XXIII of *BPM5*.

[7]While the financial transactions are shown in *IFS* and *BOPSY* as part of the balance of payments statement, the valuation changes and other adjustments are not collected or published by the IMF.

[8]There are differences in classification between the rest-of-the-world account and the IIP that reflect, inter alia, differences in analytical requirements. For instance, the national accounts focus on instruments, while the IIP focuses on functional categories. The detailed reconciliation is provided in Appendix IV.

Bank for debt owed to non-OECD official creditors and from various sources for nonresident nonbank deposits in banks. The data are presented by maturity, creditor sector, and/or instrument. The classifications are not the same as in the IIP and, while in theory they should be similar, the external debt data totals in the two presentations will differ because of differences in concepts and methodology used, and in completeness of reporting.

OECD Reporting Systems

17.19 The CRS was established in 1967 with the aim of supplying "participants with a regular flow of data on indebtedness and capital flows." Consequently, over the years it has become a major source of information not only on official lending but also on the terms and conditions of external lending, as well as the sectoral and geographic distribution of flows to developing economies.

17.20 The CRS comprises separate report forms for commitments and loans. Three report forms cover commitments: grants (Form 1A); aid and other official loans excluding export credits (Form 1B); and guaranteed and direct export credits extended for a period of five years or more (Form 1C). Four forms cover loans: the status of individual aid and other official loans, excluding export credits (Form 2); the status of aggregated medium- and long-term guaranteed export credits (Form 3); the status of aggregated medium- and long-term direct export credits (Form 3A); and the outstanding amounts of short-term export credits on an original maturity basis (Form 3B). Form 2 provides individual transaction data, and Forms 3, 3A, and 3B provide aggregate data on outstanding amounts at the end of the period and transactions during the period. Forms 3, 3A, and 3B also provide expected payments.

17.21 Reporting frequency for the CRS differs among forms. Whereas respondents report official loan commitments continuously, and export credit debt semiannually, data on the status of individual aid and other official loans are reported annually. Because these loans are not closely affected by financial market developments, this frequency is considered adequate.

17.22 The annual DAC questionnaires provide aggregated flow data that are based largely on balance of payments principles, with the exceptions noted below.[9] Thus, there is a broad correspondence between balance of payments and DAC flows data. Where CRS reporting is incomplete, debt flow data may be obtained from the DAC reporting system, and debt stock data may be estimated on the basis of previous stocks and DAC flows.

Comparison of OECD Data with Balance of Payments/IIP Data

Presentation of data

17.23 Unlike the presentation in the IIP, OECD categories show different types of debt, based partly on the creditor and partly on the instrument. They include official bilateral lending (excluding export credits), official development assistance (ODA)/official aid, officially supported export credits, official multilateral lending, bank lending, debt securities, other claims, and short-term debt.

17.24 Historically, the collection of data on ODA and other official loans has reflected analytical interest in recording development finances, especially aid. ODA is defined as those flows to countries on Part I of the DAC List of Aid Recipients that are (1) provided by official agencies, including state and local governments, or by their executive agencies; and (2) each transaction is administered with the promotion of the economic development and welfare of developing countries as its main objective, and is concessional in character and conveys a grant element of at least 25 percent (calculated at a rate of discount of 10 percent). Flows to countries on Part II of the DAC List (transition countries) that meet the above criteria are classified as official aid.[10] Although it is rare, such loans may also be made to the private sector in the borrowing country.

17.25 The collection of export credit data arose from the needs of the OECD Trade Committee to follow the activities of export credit agencies. Also of interest to creditors and debtors is the scale of multilateral lending from the World Bank and related organizations, as are loans made by other non-OECD creditors, although these data are compiled from the Debtor Reporting System (DRS).

[9]Further information on the DAC reporting system is available on the Internet at the following website: *http://www1.oecd.org/dac/htm/crs.htm.*

[10]The DAC list essentially includes all non-OECD members and some OECD members.

17.26 The presentation of the data allows creditors to consider country risk. Debtors and creditors can identify amounts that may be renegotiated in such fora as the Paris Club, the London Club, or may be the object of bilateral debt relief, and examine such questions as burden sharing by creditors, or the relative importance of different categories of creditors in a debtor country's borrowing.

Concepts

17.27 In both the OECD's reporting systems, the balance of payments criteria of residence is generally required. Creditors identify their debtor counterparts according to their country of residence, although in cases such as offshore centers, flag of convenience countries, or aircraft leases, the ultimate borrower may be in a third country. In the OECD reporting systems, all debt stocks and flows are valued at face value, unlike market value in the balance of payments and IIP. Although this may seem like a major divergence, there is in practice little difference because nontraded instruments are invariably valued at nominal value in the IIP.

17.28 A significant difference between the OECD and IIP data is that, unlike the IIP, OECD data are not reported on a full accrual basis. Both the OECD and IIP data record disbursements at the time they occur, whereas repayments are reported in OECD data when they take place, not when they are due (as in the IIP). OECD debt stock is calculated as the amount of disbursed principal outstanding plus interest in arrears, whereas the IIP debt stocks are the amounts outstanding including all interest costs that have accrued and have not yet been paid.

17.29 The IIP and OECD data define long-term and short-term debt identically. Thus in the OECD data, short-term debt includes all debt contracted for a period of one year or less plus, wherever possible, arrears of both principal and interest on all debt. In the OECD data, the maturity breakdown is available for only two categories: banks and export credits. For other categories, all debt is classified as long-term. Using data in *External Debt Statistics*, debt with a remaining maturity of one year or less can be estimated by combining short-term debt with the amount of principal payments due in the next year on long-term debt.

17.30 The nonresident creditor sector is published in the OECD data, whereas the IIP publishes the resident debtor sector. Also, the sector classification in the OECD data does not correspond with the IIP, or the *1993 SNA*. In the OECD data, there is the official sector and the private sector, of which banks are separately identified. Although not published, the OECD does have some data on the resident debtor sector. The classification of borrowers is not reported for official lending other than export credits, but it can be assumed that the vast majority of borrowers of these funds belong to the general government sector. In the case of export credits, reporters distinguish between public and private borrowers, although a further distinction between bank and other private sector is not available. Rescheduled export credits are assumed to be claims on public borrowers; the rescheduled debt notified to the OECD is generally debt rescheduled by the public sector of the debtor and the official sector of the creditor.

Specific items

Trade credits

17.31 The concept of "trade credits" is wider in the OECD data than in the IIP, which "only" includes claims and liabilities arising from the direct extension of credit by suppliers and buyers for transactions in goods and services, and for work in progress (or to be undertaken). The OECD data cover three types of export credits—officially supported suppliers credits, officially supported bank credits, and official direct credits. They do not cover private sector credits that do not have official support in the form of insurance or guarantee.

Arrears

17.32 The recording treatment of arrears of principal and interest is the same in the IIP and OECD debt data; arrears arise when payments are past due, and are classified as short-term debt. However, in the OECD data, late interest (interest on arrears) is reported and included in the debt stock only when the interest is capitalized under a rescheduling, whereas in the IIP interest costs accrue on arrears (although *BPM5* is not very clear on this issue).

Write-offs

17.33 A write-off is a unilateral creditor action that is an accounting procedure that removes a debt from a creditor's books. As such, it should be reflected in the notification of creditors' debt stocks to the OECD, thus affecting the level of claims. The IIP is silent on the treatment by the debtor, so a discrepancy could arise between the debtor and creditor data. While write-offs are rare for official and officially supported debt, they are a more common procedure for banks.

Debt forgiveness

17.34 In the DAC statistics debt forgiveness is a similar but different concept from that used in *BPM5*. Unlike *BPM5*, only relief implemented for the purpose of promoting the development or welfare of the recipient qualifies as debt forgiveness in the DAC data. However, if this condition is fulfilled, like *BPM5*, a voluntary cancellation of debt within the framework of a bilateral agreement is classified in the DAC statistics as debt forgiveness, and is reported as an ODA grant (capital transfer in *BPM5*). Unlike *BPM5*, the DAC system's concept of debt forgiveness also includes a reduction in the present value of debt achieved by concessional rescheduling or refinancing, and the discount in a debt conversion occurring within the framework of a bilateral agreement between governments (although in certain circumstances *BPM5* also records such discounts as debt forgiveness; see Chapter 8 of the *Guide*, paragraph 8.33).

17.35 Most OECD reporters follow balance of payments principles in reporting forgiveness when debt is canceled—the amount forgiven is valued as the amount of debt stock canceled and is reported in a lump sum at the time the creditor enters the forgiveness on its books. However, a few reporters only report the forgiveness of the debt annually when debt-service payments would have fallen due. This approach results in differences in timing (forgiveness spread out over many years) and amounts (interest not yet due at the time of forgiveness included in addition to principal and interest arrears) between the DAC forgiveness grants and the balance of payments capital transfers. Because some already forgiven amounts may remain included in the outstanding debt stock until the period in which their payments would have fallen due, this approach may also have the consequence of overstating the OECD measured debt stock in the intervening period after the forgiveness agreement.

Debt rescheduling

17.36 Debt rescheduling is reflected in both the debt stock and flow data collected by the OECD. The rescheduling flows are recorded at the time of actual implementation of the rescheduling, which should correspond to the time they are entered into the books (of both the creditor and the debtor), the same approach as the IIP. The rescheduling of any future maturities is therefore recorded at the time of the actual implementation of their rescheduling, rather than when the rescheduling as a whole is agreed. When short-term debt, including arrears, is rescheduled into long-term maturities, this is reflected in the OECD data, as in the IIP. Also as in the IIP, if the rescheduling involves a shift in creditor or debtor sectors—for example, a Paris Club rescheduling of debt lent by the private sector (under a creditor government guarantee) to the private sector (under a borrower government guarantee) could become government to government—the OECD data record the legal change of ownership.[11] However, when the rescheduling is within the official sector, only the capitalization of interest is reported as a flow (in order to avoid two offsetting entries for the principal rescheduled). While rescheduled export credit debt owed to public creditors can be identified as such in the OECD database, in *External Debt Statistics* it is classified under *nonbank export credits*.

17.37 Although there is much similarity in the principles, in practice the complexity of restructuring makes full and correct reporting difficult to implement for both creditors and debtors and can give rise to discrepancies between OECD data and the IIP. Genuine differences in the timing of book entries between creditors and debtors, and practical difficulties in tracing restructuring that can lead to problems such as misclassification of arrears and rescheduled debts, and omission of capitalized interest, sometimes produce different figures in creditors' reports and the debtor's IIP.

Debt conversions

17.38 In OECD data, when official debt is exchanged for equity or counterpart funds to be used for development purposes, this should be reported as an ODA grant for debt conversion, with debt forgiveness recorded only if there is a discount on the exchange. Also when, in the framework of a bilateral

[11]The counterentry to the governments' assumption of external debt might well be a claim on their private sector or capital transfer. Because of guarantees or insurance provided by the government's export credit agency, the creditor government may acquire the claim from their private sector.

agreement for development purposes, the official sector sells debt at a discount to a private sector entity that is then exchanged for equity or counterpart funds to be used for the benefit of the private sector entity for development purposes, the official sector's loss should be reported as debt forgiveness. In both cases, and as in the IIP, the debt stock is reduced by the value of the debt converted.

World Bank

17.39 The World Bank collects data on external indebtedness from debtor countries through the Debtor Reporting System (DRS). These reported data form the core of the detailed country-level debt stock and flow data that are published annually in the *Global Development Finance* (*GDF*) publication (formerly *World Debt Tables*). Selected debt data are also available in the annual *World Development Indicators* publication, and in the *Joint BIS-IMF-OECD-World Bank Statistics on External Debt* (see further, below).

17.40 The World Bank's interest in 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. Bank staff make extensive use of debt statistics in analyzing the economic prospects, financing needs, creditworthiness, and debt sustainability of developing economies. 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. To this end, the Bank's General Conditions (of borrowing) require a borrowing or guaranteeing member country to report external debt information to the Bank. As a condition of presentation of loans and credits to the World Bank's Executive Board, each borrowing or guaranteeing country must submit a complete report (or an acceptable plan of action for such reporting) on its external debt.

Debtor Reporting System

17.41 The DRS was established in 1951 and is the World Bank's principal means of monitoring external debt. Through the DRS, countries—typically low- and middle-income—that borrow from the Bank report data on long-term external indebtedness.

17.42 The number of countries covered and the data to be reported have expanded over time. At the time of writing, 136 countries submitted two kinds of reports: loan-by-loan data on long-term debt of the public sector and debts guaranteed by the public sector; and summary reports on long-term debt of the private sector that is not publicly guaranteed. The data are supplied on special reporting forms. For public and publicly guaranteed debt, individual new loan commitments are reported (quarterly) on Forms 1 and 1A, and the status of each loan at the end of the recording period and the transactions recorded during the recording period are reported on Form 2. For private nonguaranteed debt, aggregate figures on the stock of debt, transactions during the recording period, and future debt services are reported on Form 4. Short-term debt data are either obtained from the country or estimated separately using creditor and other sources, the most important source being remaining-maturity data from the BIS consolidated International Banking Statistics, which are adjusted to come into line with the original-maturity concept.[12]

17.43 *Form 1* is used for reporting the terms and conditions of each external public and publicly guaranteed debt obligation incurred during a calendar quarter with an original maturity of more than one year. This report allows a wide range of information to be captured and disseminated for statistical and analytical purposes within and outside the World Bank.

17.44 Information is collected on creditor name, type, and residence and is used in classifying external debt owed to official and private creditors, assessing creditor exposure, analyzing net resource flows from official and private creditor sources, and identifying Paris Club debt eligibility.

17.45 On the debtor side, borrower name and type, guarantor name, economic sector of borrower, and whether funds for debt servicing are to come from the budget of the central government are also reported on Form 1. This information is used in several ways, including measuring public and private sector borrowings, identifying uses of funds, and assessing the central government's debt burden.

[12]Described in detail in the notes and definitions to the *Global Development Finance* report; on the Internet, see *http://www.worldbank.org/prospects/gdf2002/vol1.htm*. The *GDF* database is also available on-line, by subscription, at *http://publications.worldbank.org/ecommerce/catalog/product?item_id=1023868.*

17.46 Form 1 allows compilation of detailed information on loan terms, including interest rates and spreads, grace period, maturity, debt-service pattern, and currencies in which the loan amounts are denominated and repaid. This information is used in calculating the grant element component, projected debt service, present value of debt, and other debt and economic indicators.

17.47 *Form 1A* captures future payments due when the terms of repayments cannot be adequately described in Form 1, and amounts rescheduled in multiyear rescheduling agreements that will become effective on future specified dates.

17.48 *Form 2* is used for reporting the annual status of each external debt liability with an original maturity of more than one year. This annual summary report presents stock and flow information for each public or publicly guaranteed debt extant at the end of the reporting period or repaid or canceled during the period. For each debt, the amount of debt committed, undisbursed, and outstanding and disbursed is presented along with the transactions that have taken place during the year. Also presented is information on any accumulation of arrears and debt reschedulings. All amounts are reported in the currency in which the debt is payable. Based on the Form 2 report, a wide range of stock and flow accounts as well as economic indicators are derived and disseminated in the *GDF*. The report is due within three months after the end of the reporting period.

17.49 *Form 4* is used for submitting annual information on the status of private sector external debt that has an original maturity of more than one year and that does not have a public sector guarantee. The information is aggregated by type of debtor institution—commercial banks, direct investment enterprises, and other—and a separate form is submitted for each type of institution. The creditor information for each type of debtor institution is provided for the following types of creditors: private banks and other financial institutions, foreign parents and affiliates, exporters and other private, and official (governments and international organizations).

17.50 Form 4 contains both stock and flow accounts and, for each type of debtor institution, estimated future payments of principal and interest for the first ten years following the end of the reporting period.

Comparison of World Bank and Balance of Payments/IIP data

Presentation of data

17.51 The presentation of debtor data, as shown in the *GDF*, responds to a different set of analytical requirements from that of the IIP. The aim is to provide a detailed view of a country's borrowing activities, accessibility to external funds, and borrowing costs, as well as to facilitate a comprehensive analysis of the debt burden, debt-servicing capacity, financing needs, and creditworthiness of the country. To this purpose, both stock and flow data are provided at different levels of breakdown. The first breakdown is that between long- and short-term debt, and the second between public (and publicly guaranteed) and private borrowing. Special attention is paid to identifying private borrowing with direct government guarantees. Also, projected repayment profiles are viewed as critical to analysis and management of obligations, and these are included in the presentation of data.

17.52 The creditor breakdown goes beyond a breakdown by instrument. For instance, for official creditors, multilateral and bilateral, the more detailed breakdown identifies concessional lending by this sector. These data are particularly useful in debt work. Official credits with an original grant element of 25 percent or more using a 10 percent rate of discount are characterized as concessional (as defined by the DAC). The exception are credits from major regional development banks—African Development Bank, Asian Development Bank, European Bank for Reconstruction and Development, and the Inter-American Development Bank—and from the IMF and World Bank, where concessionality is determined on the basis of each institution's own classification of concesssional lending.

17.53 The disaggregation of private lending is a mixture—by institution, such as banks, and by instrument, such as bonds. Trade-related borrowing, such as export credits and supplier credits, is included within "other private," and so not separately identified. The presentation of the data distinguishes between private-sourced debt that is owed by public entities or owed by private entities but with explicit government guarantees, and that which is owed by the private sector.

17.54 Projected debt-service payments and debt-disbursement profile are based on current debt transactions and loan terms. Projected debt-service payments are projections of payments due on existing debt outstanding, including undisbursed amounts of existing external debt, taking account of implemented multiple-year restructuring agreements. Future disbursements and debt-service payments refer only to existing debt and do not reflect any assumptions about future borrowing.

Concepts

17.55 The principal concepts used by the DRS in compiling debt stocks are consistent with the conceptual framework of the *Grey Book* (BIS and others, 1988) and there is consistency with several elements of the IIP as well. The level of detail of the information required from reporting countries and the presentation of debt data are influenced by the analytical and operational application of the data (see paragraph 17.40). The DRS includes all debt with an original maturity of more than one year owed to nonresidents and short-term debt. Total external debt is derived as the aggregate of long-term and short-term debt (and use of IMF credit).

17.56 Like the IIP, external debt statistics in the DRS are compiled on a residence basis (as opposed to a nationality basis)—external debt is that owed by entities physically located in the reporting country to entities located outside the reporting area, irrespective of nationality. So, branches of foreign banks are resident to the reporting country, whereas foreign offices of domestic banks are not. Also, bank deposits held in domestic banks by nationals living abroad are included in external debt data.

17.57 In a few cases the DRS deviates from the residence criteria, and hence the IIP framework, for analytical and operational reasons. For instance, the DRS excludes from a country's external debt the indebtedness of banks located in a resident offshore banking center; this indebtedness can often be very large in relation to the host economy.[13]

17.58 Debts payable in both foreign and domestic currency to nonresidents are required information to be reported under the DRS. In practice, the DRS's focus is on foreign currency debt; domestic currency debt owed to nonresidents has not been included. This is a departure from the IIP framework. Also, currency—notes and coins—held by nonresidents are not captured by the DRS.

17.59 A point of departure from the IIP is the valuation of stocks. The DRS measures all stocks at nominal value rather than at traded or current market value. For nontraded or nontransferable debt instruments such as loans and deposits, there is in practice little difference because nontraded instruments are invariably valued at nominal value in the IIP. However, this is not true for traded debt instruments.

17.60 Short-term and long-term debt are similarly defined in the DRS and the IIP: short-term debt includes all debt with an original maturity of one year or less, and long-term debt includes all debt with an original maturity greater than one year; interest arrears are included under short-term debt. There is a difference in the treatment of principal arrears; the DRS classifies these arrears by the original type of the debt, whereas the IIP classifies them as short-term debt.

17.61 The DRS sectoral classification of external long-term debt has two categories: debt of the public sector and private debt with a public sector guarantee; and all other private, nonguaranteed debt. This classification is not equivalent to the IIP breakdown, although with the available information it is possible to relate the DRS's debtor classifications—the nine types are central government, local government, central bank, private bank, direct investment, public corporation, mixed enterprise, official development bank, and private—to those of the IIP. Within the debtor category the DRS provides a further breakdown by creditor sector. The IIP does not provide a creditor sector breakdown.

17.62 The DRS measures debt stocks and flows on a cash transaction basis as opposed to the accrual method recommended in the IIP. Thus, reported flows are the result of a cash (or in-kind) transaction, such as an actual loan disbursement or repayment, and debt outstanding is the amount disbursed less amount repaid (and any interest arrears). Projections are on a debt-due basis. In the IIP framework, disbursements are recorded when they occur, but repayments are reported when due. Debt stocks in the IIP include interest costs that have accrued and have not yet been paid.

[13]The same can be true for countries that sponsor "flag of convenience" companies.

Comparison of World Bank Data with OECD Data

17.63 There are notable differences for data users, both in presentation and in the recording of categories of debt between the debt statistics of the debtor and creditor data. This is because the breakdowns chosen by the different reporting systems reflect the analytical requirements of users. This section discusses and explains the reasons for some of the differences.

17.64 One classification that is consistent in both systems is the concept of short- and long-term based on original maturity. Both systems also provide data on long-term debt due within the year, as well as short-term debt data on an original-maturity basis, thus allowing for a measure of remaining maturity to be estimated.

17.65 The compilers of the DRS and CRS do compare the two sets of data series to see why there are differences in reported debt figures. From their work, certain reporting differences have emerged.

17.66 First, certain borrowing countries apply the definition of short- and long-term debt differently from creditors. For instance, certain creditors may classify short-term loans that are rolled over as long-term loans. Second, the DRS does not classify arrears of principal as short-term debt but, as noted above, by the original type of debt. However, this does not pose a problem for reconciling debtor and creditor data because principal arrears are separately identified in the debtor data so to allow comparability with creditor information.

17.67 Second, bilateral ODA in the CRS and bilateral concessional debt in the DRS are not entirely comparable. The difference emerges because of the coverage of loans. In the debtor data, bilateral direct export credits may be included under bilateral concessional loans if the grant element on the loans is 25 percent or more, whereas they are classified as export credits and not ODA in the creditor data. When export credits are subsidized by ODA loans—mixed credits—the subsidies for such credits would appear as ODA loans in the creditor data.

17.68 Third, loan-by-loan comparisons between the DRS and CRS have sometimes shown a different perception of the timing of disbursements and repayments between debtor and creditor, resulting in a difference in the reported outstanding debt at any given time.

17.69 Fourth, differences arise due to restructuring. In the case of forgiveness, the DRS may, for analytical purposes, anticipate the timing of cancellation, whereas the creditor usually waits for the signing of the bilateral agreement, which may entail delayed parliamentary approval. In the case of rescheduling of guaranteed export credits, the rescheduled loan may remain classified as an export credit rather than a new official loan on the creditor side, whereas the debtor records it as a bilateral official loan.

Joint BIS-IMF-OECD-World Bank Statistics on External Debt

17.70 The *Joint BIS-IMF-OECD-World Bank Statistics on External Debt* were first released on March 15, 1999 on the website of the OECD[14] with hyperlinks available from the websites of the BIS, the IMF, and the World Bank.[15] This release is an initiative of the Inter-Agency Task Force on Finance Statistics (TFFS); it is updated quarterly. The purpose of the site is to facilitate timely and frequent access by a broad range of users to one dataset that brings together external debt data that are currently compiled and published by the contributing international agencies (BIS, IMF, OECD, and World Bank).

17.71 The types of debt primarily covered in the Joint Statistics comprise loans from banks, debt securities issued abroad, Brady bonds, officially supported nonbank trade credits (that is, export credits extended by nonbank institutions of the exporting country), multilateral claims,[16] and official bilateral loans (loans provided mainly for development purposes excluding export credits). Data on total liabilities to banks and on officially supported bank and nonbank trade credits are available as the memorandum items. The BIS, IMF, OECD, and World Bank provide the data. The statistics are mostly from creditor and market sources but also include data pro-

[14]See *http://www1.oecd.org/dac/Debt/index.htm*.

[15]Respectively, at *http://www.bis.org/statistics/index.htm*, *http://www.imf.org/external/np/sta/ed/joint.htm*, and *http://www.worldbank.org/data/databytopic/debt.html*.

[16]At the time of writing, the multilateral claims covered by the data in the Joint Table were loans from the African Development Bank, Asian Development Bank, and Inter-American Development Bank, use of IMF credit, and IBRD loans and IDA credits from the World Bank.

Box 17.1. Joint BIS-IMF-OECD-World Bank Statistics on External Debt

The sources, definitions and coverage of individual series are explained in detail in this box. See also Table 17.3 and *http://wwwl.oecd.org/dac/Debt/index.htm*.

The columns of the table cover stocks—the amounts outstanding at the end of each period—and flows—disbursements net of repayments during the period. Flows are available for debt securities, Brady bonds, multilateral claims, and bilateral loans (lines B, C, E, and F of the table). For the banking and trade credit figures (lines A, D, J, L, and M of the table), the change in stocks, adjusted for changes in exchange rates to the U.S. dollar during the period, is given. For other series, flow data are not available.

Line A: Bank loans

Line J: Total liabilities to banks (locational)

Line M: Total claims on banks (locational)

Data above are derived from the BIS locational banking statistics.

Line B: Debt securities issued abroad

Line H: Debt securities issued abroad (due within a year)

Data are derived from quarterly BIS statistics on international securities.

Line C: Brady bonds

Brady bonds comprise commercial bank debt restructured under the Brady Plan, introduced in early 1989. Data on Brady bonds are provided from the World Bank's Debtor Reporting System (DRS). Annual data on stocks and flows (issues less repayments) are as reported by the debtor country and include buybacks. Quarterly data on stocks and flows are estimates based on repayment terms of the bonds and reflect adjustments for buybacks during the quarter. In the World Bank's *Global Development Finance* (*GDF*), data are included (but not shown separately) under public and publicly guaranteed debt.

Line D: Nonbank trade credits

Data are derived from the semiannual reports to the OECD made by OECD member countries' export credit guarantee agencies. Nonbank trade-related credits comprise official export credits, which are long-term, and officially guaranteed or insured suppliers' credits, which are credits extended by exporters to importers abroad. They also include arrears and officially rescheduled amounts on officially guaranteed or insured financial credits, since these are taken over by export credit agencies from the original bank creditors. Guaranteed financial credits made by banking institutions that do not report to the BIS are also included here. These data only cover trade credits that have been guaranteed or insured by the official sector in the creditor country. They include credits extended to both the public and private sector in the borrowing country.

Line E: Multilateral claims

Multilateral claims cover data for African Development Bank (AfDB), Asian Development Bank (ADB), Inter-American Development Bank (IADB), IMF, and World Bank claims. Stocks are the total of loans from AfDB, ADB, and IADB, use of IMF credit, and IBRD loans and IDA credits from the World Bank. Flows are the sum of disbursements less principal repayments on loans and IDA credits, and IMF purchases less IMF repurchases.

Line F: Official bilateral loans (DAC creditors)

This line shows the outstanding debt from the OECD's Credit Reporting System (CRS) on loans, other than direct export credits, extended by governments that are members of the OECD's Development Assistance Committee (DAC). Direct export credits extended by the official sector are included in nonbank trade credits (lines D and I). In addition to straightforward loans, official bilateral loans include loans payable in kind, and eligible loans in Associated Financing packages.

Line G: Liabilities to banks (due within a year)

Line K: Total liabilities to banks (consolidated)

Data are derived from the BIS consolidated banking statistics.

Line I: Nonbank trade credits (due within a year)

These data are derived from the OECD's CRS. They comprise official and officially guaranteed or insured suppliers' credits extended by exporters to importers abroad that have a remaining maturity of one year or less. They include (1) export credits with an original maturity of one year or less and (2) the amounts of principal due in the next year on credits with an original maturity of over one year. These data only cover trade credits that have been guaranteed or insured by the official sector in the creditor country. They include credits extended to both the public and private sector in the borrowing country.

Line L: Total trade credits

These data are derived from the OECD's CRS. This line covers all official and officially supported trade credits; that is, trade credits that have been guaranteed or insured by the official sector in an OECD reporting country. The credits include those extended to both the public and private sector in the borrowing country. In addition to the nonbank trade credits shown in line D, this line includes financial or buyer credits extended by banks that are guaranteed or insured by an official export credit guarantee agency. These guaranteed bank credits are also included in the amounts shown in line A (Bank loans), line G (Liabilities to banks), line J (Total liabilities to banks—locational), and line K (Total liabilities to banks—consolidated).

Line N: International reserve assets (excluding gold)

Data are those published in the IMF's *International Financial Statistics* (*IFS*).

vided by debtor countries. At the time of writing, data were available for more than 175 countries. Data are also shown on external financial assets in the form of claims on banks and holdings of international reserve assets, which are prepared by the BIS and the IMF, respectively. A detailed description of the data in the Joint Statistics as at mid-2001 is provided in Box 17.1.

Table 17.3. Example of Joint BIS-IMF-OECD-World Bank Statistics on External Debt (1)

	Stocks (end of period)						Flows (2)			
	2000	2001				2002	2000	2001	2001	
(In millions of U.S. dollars)	December	March	June	September	December	March	Year	Year	Third Quarter	Fourth Quarter
COUNTRY A										
External debt—all maturities										
A Bank loans (3)										
B Debt securities issued abroad										
C Brady bonds										
D Nonbank trade credits (4)										
E Multilateral claims										
F Official bilateral loans (DAC creditors)										
Debt due within a year										
G Liabilities to banks (5)										
H Debt securities issued abroad (6)										
I Nonbank trade credits (4)										
Memorandum items										
J Total liabilities to banks (7) (locational)										
K Total liabilities to banks (6) (consolidated)										
L Total trade credits										
M Total claims on banks (8)										
N International reserve assets (excluding gold)										
COUNTRY B										
External debt—all maturities										
A Bank loans (3)										
B Debt securities issued abroad										
C Brady bonds										
D Nonbank trade credits (4)										
E Multilateral claims										
F Official bilateral loans (DAC creditors)										
Debt due within a year										
G Liabilities to banks (5)										
H Debt securities issued abroad (6)										
I Nonbank trade credits (4)										
Memorandum items										
J Total liabilities to banks (7) (locational)										
K Total liabilities to banks (6) (consolidated)										
L Total trade credits										
M Total claims on banks (8)										
N International reserve assets (excluding gold)										
COUNTRY C										
External debt—all maturities										
A Bank loans (3)										
B Debt securities issued abroad										
C Brady bonds										
D Nonbank trade credits (4)										
E Multilateral claims										
F Official bilateral loans (DAC creditors)										
Debt due within a year										
G Liabilities to banks (5)										
H Debt securities issued abroad (6)										
I Nonbank trade credits (4)										
Memorandum items										
J Total liabilities to banks (7) (locational)										
K Total liabilities to banks (6) (consolidated)										
L Total trade credits										
M Total claims on banks (8)										
N International reserve assets (excluding gold)										

Source: OECD, on the Internet at *http://www1.oecd.org/dac/debt*.
(1) From creditor and market sources, except for data on Brady bonds which are from debtor sources, all currencies included.
(2) Flow data for items B, C, E, F and L; exchange rate adjusted changes for items A, J, and M; no data available for items D, G, H, I, K and N.
(3) From BIS locational banking statistics, which are based on the country of residence of reporting banks.
(4) Official and officially guaranteed. Break in series at end-1998 due to reallocation of rescheduled export credits from line F to line D.
(5) From BIS consolidated banking statistics, which are based on the country of head office of reporting banks and which include banks' holdings of securities.
(6) Including debt securities held by foreign banks, which are also included in line G.
(7) From BIS locational banking statistics, which are based on the country of residence of reporting banks and which include banks' holdings of securities.

17.72 Table 17.3 (on preceding page) shows a sample table from the Joint Statistics: the stock of debt, with a minimum two-month lag, for the past five quarters and the previous December; and flow figures for the latest complete two years and two recent quarters. Whenever available, data on short-term debt, based on the remaining-maturity concept, are also provided. Free access to an on-line database, which provides longer time series and permits manipulation of the figures, is also available. Some of the data are only available semiannually, and no attempt is made to provide quarterly inter- or extrapolations of these data. The data are published 22 weeks after the end of the quarter.[17]

17.73 With a view to making users aware of the data limitations and promoting best practice in using the data, a set of metadata has been prepared, along with the data, indicating how the data relate to internationally agreed concepts. These data are mostly from creditor and market sources but also include information provided by the debtor countries themselves. These data do not provide a completely comprehensive and consistent measure of total external debt. For example, these data do not cover (1) nonofficially guaranteed suppliers credit not channeled through banks; (2) direct investment: intercompany lending; (3) private placements of debt securities; (4) domestically issued debt securities held by nonresidents; (5) deposits of nonresidents in domestic institutions; and (6) amounts owed to non-DAC governments. Nevertheless, the Joint Statistics do bring together the best international comparative data currently available on external debt that are compiled and published separately by the contributing institutions.

17.74 The user needs to be careful in comparing data series. For instance, there are overlaps between data sources such as the international securities data and the nationality/consolidated banking statistics, which indistinguishably include securities. Thus, for debt due within a year, the data relating to debt securities issued abroad include securities held by foreign banks that are also included under the data relating to liabilities to banks. Also, there can be inconsistencies. For example, the data on loans from banks and on total liabilities to banks due within a year are drawn from different data sources—the BIS locational and consolidated international banking statistics, respectively. Thus, creditor and market-based statistics are not a substitute for setting up appropriate reporting systems by the debtor countries themselves.

[17]The lag refers to the BIS International Banking Statistics, which are the core series in the Joint Statistics.

18. External Debt Monitoring Systems

Introduction

18.1 This chapter describes the debt recording systems of the Commonwealth Secretariat and the UN Conference on Trade and Development (UNCTAD) as at end-2000. Both systems are widely used and are designed to assist countries in capturing and storing instrument-by-instrument information in a computerized system. Both include features that can analyze the stored information.

Commonwealth Secretariat's Debt Recording and Management System (CS-DRMS)

18.2 The CS-DRMS, first released in 1985, assists countries to record and manage debt by providing a comprehensive repository for external and domestic debt data, both public and private, on an instrument-by-instrument basis, as well as tools to analyze and manage the loan portfolios. It is regularly enhanced to reflect changes in instruments, creditor practices, debt reporting standards, and technology in order to represent best practice in debt-management. The main functions of the CS-DRMS are set out in Table 18.1.

18.3 The CS-DRMS system is used in some 50 Commonwealth and non-Commonwealth countries, across 70 sites in ministries of finance and planning and central banks. It is provided as part of the Commonwealth Secretariat's advisory services in debt and development resources management, which cover the following areas:

- Strengthening the legal and institutional arrangements for contracting and managing debt;
- Advice to governments in areas such as debt policy and strategy, debt restructuring, loan evaluation, and assistance in negotiations with creditors;
- Assistance in debt data compilation and in the review of the quality of databases;
- Capacity building through training courses and workshops in various areas of debt management as well as in the use of CS-DRMS; and
- Development and maintenance of CS-DRMS, including user support.

Functionality

18.4 The 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. It has a comprehensive **External debt** module that allows for the recording of a wide range of official and commercial instruments, including short-term and private sector debt; and a comprehensive **Domestic debt** module that allows for the recording of the full issuance cycle of domestic debt instruments such as treasury bills, bonds, and notes, and for the planning of issues, auctions, and analysis of bids. Both actual and forecasted transactions data as well as that on arrears are captured in a manner that meets the international external debt data guidelines. Also, there are comprehensive facilities within CS-DRMS to handle debt restructuring, including refinancing and Paris Club rescheduling.

18.5 The special **Management tools** module assists debt managers in debt strategy formulation and analysis, such as portfolio analysis, sensitivity testing for risk management, monitoring debt sustainability indicators, and other early warning signals. Also, there are extensive querying and reporting facilities, including over 60 standard reports, as well as a custom-built report generator that allows users to write their own reports quickly.

18.6 There are multilayer security features to meet individual country requirements, including the ability to configure access screens and reports to differentiate among front, middle, and back office functions.

Table 18.1. Major Functions of the Commonwealth Secretariat Debt Recording and Management System (CS-DRMS)

Debt Recording	Debt Reporting	Debt Analysis	Other Functions
• Maintain an inventory of all external and domestic debt instruments including: — public debt and grants; — short-term and private sector debt; — restructuring agreements including rescheduling • Record basic details and terms on an instrument • Record other relevant debt-related 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 loans in arrears and calculate penalty payments • Monitor loan and grant utilization and disbursements • Monitor government lending including on-lending	• Provide information and reports on any group or class of instruments • Produce standard reports for various data requirements including government finance, balance of payments, and IIP • Provide easy generation of custom reports using a purpose-built report generator • Respond to specific user enquiries into the database	• 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 • Undertake debt sustainability analysis in conjunction with other packages such as the World Bank's DSM Plus • Evaluate different loan offers • Evaluate different proposals for refinancing and rescheduling of loans and compute debt relief • Combine CS-DRMS debt data with exogenous economic data to project critical debt indicators, both on nominal and a present value basis • Evaluate exposure to exchange and interest rate risk	• Transfer debt data electronically to the World Bank's DRS, as well as to spreadsheets and other packages such as asset and liability management and government accounting systems • Browse CS-DRMS data using Debt Manager—a Windows-based add-on product developed for debt managers • Use validation utilities to ensure database integrity and accuracy • Integrate front, middle, and back office functions via the database and security management options • Perform housekeeping functions such as backup and restore and setting up modem access **Future Developments:** • Web-enabled for on-line recording and reporting • Full accrual and market valuation computation • Contingent Liability Module

Technological Characteristics

18.7 The CS-DRMS has a number of technical features to assist debt managers and compilers. For instance, the **Loans Explorer** facility (similar to Windows Explorer) allows quick display, interrogation, and report of data stored in the database. More generally, the CS-DRMS is designed to cater to both small and larger databases and can be run on various types of relational databases including INFORMIX, ORACLE, and SQL-Server. CS-DRMS is based on open, industry-standard technology and can export information to the DSM Plus, World Bank DRS, as well as other packages, such as MS Excel, accounting, and other management information systems. The CS-DRMS functions in both English and French and has language-independent design to facilitate translation into other languages.

18.8 CS-DRMS has a **Help** facility, both on-line and on hard copy, that is to be augmented by Internet support from the CS-DRMS website. For further information, see the CS-DRMS website at: *www.csdrms.org* or contact:

Director
Economic and Legal Advisory Services Division
Commonwealth Secretariat
Marlborough House
Pall Mall, London SW1Y 5HX, United Kingdom
Tel: 44-(0) 20–7747 6430
Fax: 44-(0) 20–7799 1507
E-mail: *csdrms@commonwealth.int.*

UNCTAD's Debt Management and Financial Analysis System (DMFAS)

18.9 The DMFAS is a computer system designed for use by ministries of finance and/or central banks for the management of public debt. It is regularly enhanced so that it remains current with, and helps establish, best practice in debt management.

18.10 The DMFAS allows the user to monitor public short-, medium-, and long-term debt, external and domestic, as well as on-lending operations. Private debt and grants may also be registered within the system. DMFAS is designed to satisfy three distinct debt-management needs: the day-to-day operational needs of the debt manager (see UNCTAD, 1993), the aggregate statistical requirements of the debt office, and the analytical needs of the policymaker. In connection with public expenditure, the DMFAS is easily linked to the budget execution system, when there is one in use at the ministry of finance.

18.11 DMFAS version 5.2 is a Windows-based application[1] that uses all the advantages of this standard graphical user-interface. It also uses ORACLE's Relational Database Management System (RDBMS)[2] and ORACLE Development Tools.[3] The Standard DMFAS version 5.2 exists in four different languages—English, French, Spanish, and Russian—and can be used both in a single-user and in a networked environment.

Operational Management

18.12 Operational debt management is the day-to-day management of debt in accordance with executive direction and organization, and involves the recording, analytical, controlling, and operating functions. The operational features of DMFAS 5.2 put the main emphasis on the recording and analytical functions, including compilation of aggregated debt figures and analysis of key indicators. This information, in turn, serves as a basis for control of public borrowing.

[1]Windows is licensed software from Microsoft Corporation.

[2]A relational database is a collection of "relations," whereby a relation is a two-dimensional table in which the entries in the table are single-valued; each column has a distinct name; all the values in the same column are values of the same attribute; the order of the columns is immaterial; each row is distinct; and the order of the rows is immaterial.

[3]ORACLE is a registered trademark of Oracle Corporation.

DMFAS 5.2 Recording Function

18.13 The DMFAS main menu follows the typical operational life cycle of a loan agreement. Loan details are registered in the **Administration** section and, based on the contract information, amortization tables are calculated and initial drawing estimates made. The Administration section also contains a **Reference files** menu where the user enters information on daily exchange rates, variable interest rates, commercial interest reference rates, budget line identification numbers, as well as creditors/debtors and other participants to the agreements. As disbursements take place, these will be registered into the loan **Mobilization** section of the system. This section may also, upon the user's request, be programmed to print drawing requests automatically. Thereafter, all transactions related to the servicing of loans, including operations on arrears, penalty (late) interest, rescheduling, swaps, etc., are recorded in the **Servicing** section of the system. The servicing section contains links to budget allocations. The automatic registry of arrears function enables the user to create blocks of arrears for a given subset of loans.

Types of agreements that can be registered in the DMFAS

18.14 The DMFAS version 5.2 has facilities to register and establish the required links between the following types of agreements:

- *Loans*. The system can record all loan-type contracts, including bonds, in their original currency. The system can store quantitative information (such as financial terms) and qualitative information (such as notes for specific comments or memorandum items, like the type of legal clauses in the contract). Furthermore, the loans "module" has facilities for:
  - — recording of *secondary market shares* and share movements for syndicated loans in order to report the exposure of each member of the syndicate at a given point in time;
  - — maintaining records of *amendments* to loan agreements;
  - — maintaining records of the *loan status* throughout the lifetime of the loan (when the loan was agreed but disbursement had not occurred), the period when the loan was in existence, and when it was fully repaid;
  - — recording *currency pool* loans (World Bank and regional development bank loans);

   - linking loans and grants information to specific *projects*, *agreed minutes*, *on-lending* agreements, and *budget allocations*.
- *Grants*. The "module" for registration of grants contains the same facilities as the loans module, except for repayment conditions.
- *On-lending agreements*. The system can record **On-lending** of loans and the relation between the on-lent loans and the original loan.
- *Composite agreements*. The facility for recording **Composite agreements** permits the user to register the global information on agreements incorporating several individual credits (and/or grants) and to link this global agreement to the individual loans or grants stemming from it.
- *Projects*. The **Project information** facilities of the system permit easy identification of individual projects and their relationship to loans and grants financing them, as well as the individual disbursements related to them.
- *Debt reorganization agreements*. The **Debt reorganization** facility links the reorganized bilateral loans to the relevant "Agreed Minutes" and is designed to provide supporting data for reorganization negotiations, to facilitate recording of the reorganized terms received, and to facilitate identification and reporting of reorganized transactions.

How is this information registered into DMFAS 5.2?

18.15 The DMFAS captures financial terms of individual credits as specified in each loan contract; the characteristics to be entered include, among others, the principal terms, interest terms, as well as interest and exchange rates. On the basis of this information, the system automatically calculates estimated disbursements and amortization tables. Loan information is entered on two levels, **General information** and **Tranches**; these are subsets of administration. Each loan has one general information section and at least one tranche section.

Administration

18.16 The section **Administration** registers all the basic data related to specific loan or grant agreements, projects financed through loans and/or grants, general agreements (for example, composite agreements, Paris Club Agreed Minutes, etc.), and rescheduling agreements. The following **Reference** information is stored within this section:

- The **Participants** (debtors, creditors, etc.) in the different agreements. The system requires the availability of a set of information on each one of the participants (for example, institution type, country of residence, telecommunications data, etc.).
- The **Common variable interest rates** for projection purposes.
- The **Commercial interest reference rates** (CIRR) for a present-value calculation, which is especially useful within the framework of the HIPC Initiative. The OECD publishes these interest rates.
- The system can record **Daily exchange rates**. These rates are entered into the common exchange rate file for the entire loan portfolio in the system.
- The **Budgetary lines** are loaded here for use in the disbursement and debt-servicing processes, as required. In other words, the budget lines refer to the budget account numbers that are used to service the different loans.
- The **Interest rate groups** and **Maturity groups** allow the user to customize the range of these loan attributes for selection and sorting needs.

General information

18.17 All the information that is general to the loan agreement and a grant is entered under this heading. The links to the loan participants or clients (borrowers, lenders, guarantors, beneficiaries, etc.) are also entered in this section, although there are facilities for entering loan participant links at the tranche level if the agreement has participants who only relate to a specific tranche. Some of the important features include:

- The system uses flexible **Loan identification** so that the user can use his or her own codification standards and is not limited to predefined numeric loan numbers.
- The role of the **Participants** to the different agreements (loan, grant, etc.) is defined here with reference to the participants file.
- The **Amendments** to the different agreements (loan, grant, etc.) are registered and monitored here.
- The **Creditor's participation shares** in a syndicated loan are registered and monitored here with reference to the participants' file.
- The record of the **Loan status** throughout the lifetime of the loan is registered and monitored here.
- The recording of the **Currency pool** loans (World Bank and regional development bank loans) is made here.

- **User-defined fields** allow the debt officers to cater to country-specific loan details that can then be used as selection and sorting criteria when generating reports.

Tranche information

18.18 Information on interest payment and principal repayment terms is registered on a detailed level in so-called **Tranches**, and allows more accurate recording of loans in several currencies and with several interest rates. Multilateral borrowing, for instance, often has several currency tranches under the same credit. These different tranches may or may not have the same rate of interest. Each currency will therefore be registered as a separate tranche with its own amortization schedule. The system captures specific floating interest rates for the tranches. These rates are either entered into the common exchange rate file for the entire loan portfolio in the system or they are entered as characteristics of a loan tranche. This will depend on the level of accuracy of calculations that are required by the user. It was conceived in this way because different creditors will be using different interest rates for the same currency on the same date.

18.19 The DMFAS system provides three different options for manual and/or automatic management of tranches: one tranche only, known multiple numbers of tranches, and unknown number of tranches:

- *One tranche* only. There will be only one tranche; all disbursements will belong to this tranche. The transactions of this tranche will always be in the base currency of this tranche, which must be the same as the loan currency.
- *Multiple known tranches*. The user creates each tranche, defining the disbursement profile and amount of each tranche (the system will automatically manage the distribution of the undisbursed amount of each tranche as theoretical disbursements).
- *Unknown number of tranches until the loan is fully disbursed*. The DMFAS system assists in this case in the creation of a tranche by automatically generating the so-called 0 (zero) tranche containing the estimated disbursements based on the remaining undisbursed amount of the loan. Each time a disbursement is registered, it will generate an actual amortization table starting in the number 1 tranche. Disbursements may also be entered into existing tranches, in which case the estimated disbursements in the existing 0 tranche will be recalculated, but no new tranche is created.

DMFAS 5.2 Operating and Controlling Functions

Operating function

18.20 The DMFAS records all types of individual transactions: disbursements (registered in **Mobilization**) and repayments of principal, payment of interest and commissions, etc. (registered in **Servicing**).

Mobilization

18.21 The section **Mobilization** is for registering **Disbursements**. The system can handle disbursements in the same (or different) currency as that of the tranche and registers the equivalent value in the loan currency, in the tranche currency, and in the local currency. For validation all the figures are checked for consistency against the exchange rates registered in the corresponding files. The disbursement can also be related to a project or a program allocation.

18.22 The system has a facility for identifying estimated disbursements in the past and automatically redistributing these into the future—the **Roll forward estimated disbursements**—which is also activated from this option. When a large number of estimated disbursements have not taken place, the user can update the future undisbursed amounts in batch mode from this option starting at a given date. The system will thus automatically update the amortization tables as a result of projecting future disbursements.

Servicing

18.23 The **Debt-service operations** are handled in this section. There is an option dealing with principal and interest and two other options for commissions and penalty (late) interest. All debt-service operations can be entered and/or followed in six currencies: local, tranche, effective, euro, U.S. dollar, and SDR. The user will have access to the following functionalities:

- The debt-service operations will be ordered by scheduled date, and the field status will inform the user of the current stage in the servicing process for the maturity concerned (scheduled, waiting, paid, written-off, rescheduled, payment ordered but no feedback received from the payer, etc.).

- The generation of the list of **Debt-service** maturities is based on the amortization tables. The user must verify these lists and that the maturities in the waiting list (those whose scheduled date are before today's date) are registered as paid, rescheduled, written-off, swapped, or confirmed as arrears. The system might confirm the overdue maturities as arrears automatically if the user has chosen this option.
- The accumulation of arrears will eventually also lead to accumulation of a stock of **Penalty (late) interest** due to different creditors. The DMFAS system estimates this penalty interest based on each individual confirmed arrears transaction in the database. The penalty interest "module" allows the user to record payments, rescheduled, and written-off operations on penalty interest.
- This section is also where the **Budgetary allocation amounts** are registered. The system allows entry of budget allocations for comparison with actual payments. The user defines the budget periods (within the fiscal year) and loads the budget line identifications and the allocation to each budget line. The allocation is then linked to tranches and individual transactions, and in this way the system automatically monitors the allocation against the accumulated amount of actual transactions during the specified budget period. So, the budgeting of payments may be monitored on loans, interest, principal, and commissions—one line for each item as defined in the budget—and can easily be adjusted to the needs of individual countries. The system will issue a warning if the sum of actual transactions exceeds the allocation.
- The **Adjustment factors** used in some of the currency pool loans from multilateral institutions are registered here. These factors will be used for reporting, since the system will always keep the currency pool loan in book values, using the factors to reevaluate the outstanding amount and debt servicing at a given date stated by the user.
- The **Payment order**, a country-specific facility, can also be either printed or electronically transmitted from this option. If there is a linkage with a budget system, the payment order can be processed through the corresponding budget allocations.

Historical data

18.24 A public debt system should be able to show and calculate the historical data. Loading the information about the individual transactions in order to fulfill this requirement can be very tedious and, in some cases, an overwhelming task. The DMFAS, in order to overcome this problem, permits the user to load balances on a loan-by-loan and tranche-by-tranche basis at a given date (the user-defined DMFAS cutoff date). The **Historical amount** balances will include total principal repaid, total interest paid, etc., at the cutoff date. This will allow the system to calculate, at any date after the cutoff date, stocks and flows at any level of aggregation.

Controlling and monitoring functions

18.25 The first controlling function is on the data accuracy and data validation. Once the data are entered, they will be updated regularly or deleted, as the case may be. To ensure consistency among data for a particular loan, a certain number of controls have been incorporated in the system. By means of a number of error messages appearing on the user's computer screen, the user will correct and validate data. The user may also produce different reports to check the data for correctness.

18.26 The system can also produce a large number of reports for the purpose of control and monitoring the debt-management operations.[4] Examples include reports of payments falling due in the next month, in order to pay them on time, and the selection facility that permits the user to select loans by economic sector, type of creditor, type of financing, etc., that can be used for controlling ceilings on outstanding debt or debt servicing.

DMFAS 5.2 Analytical Function

Reporting facilities

18.27 This function provides a flexible and comprehensive set of reports that, when generated in aggregate, can be produced in local currency, in U.S. dollars, in euros, or in SDRs. The DMFAS 5.2 can produce a large number of reports of four types, as described below.

Predefined reports without parameters

18.28 The user cannot modify this type of format. The report concerns a very specific topic and will present all available information on the selected

[4]The system cannot perform these functions properly without the proper institutional environment; that is, the administrative and institutional arrangements of the debt office, as well as its relationships and information flows with other institutions.

"block" of loans. No parameters are therefore required. The **Amortization table** is one example of this type of report.

Predefined reports with parameters

18.29 The user also cannot modify this type of format. The report, however, potentially covers large amounts of data, and the user therefore can define the reporting period covered. DMFAS version 5.2 produces Form 1 and Form 2 of the World Bank's DRS, which are examples of this type of report,[5] as is the loan account statement that is extensively used by debt officers.

User-defined reports

18.30 Customized reports permit users to create their own self-designed reports. In addition to a different set of parameters that the user can choose—such as the currency, the level of aggregation, the period, etc.—it is possible for the user to select the contents of the columns from among a list of available debt totals from the stored information and/or projections. For certain formats, the report can contain up to 12 columns as well as include percentages as debt totals. The report format, once the user has created it, is stored by DMFAS 5.2, so that the user can retrieve it in order to print it out with the original or new data, as well as to modify its format if needed.

18.31 To create reports in DMFAS the user starts by defining a subset of loans to work with, then sorts this subset and finally defines the report parameters, such as the currency, the periodicity, the level of detail, etc., as well as the hierarchical order in which the selected criteria appear in the report and how their subtotals are calculated. DMFAS version 5.2 uses a customized Oracle Browser to create subsets of loans and to sort the subsets. These subsets may, if the user wishes, be given a name and saved for later use.

18.32 When creating a user-defined report, the user has to select the report's format:

- Format 1: Aggregates in columns, and each aggregate for a specific period;
- Format 2: Aggregates in columns, and time periods in rows;
- Format 3: Aggregates in rows, and time periods in columns.

[5]The World Bank Forms 1 and 2 can also be "printed" and reported electronically. See Chapter 17, paragraph 17.39 ff.

18.33 The user names each new report in order to be able to retrieve the report for later use. When retrieving previously saved reports, however, the user still has the option of changing the corresponding subset or the report parameters. The report parameters include, among others:

- *Period base*. The user may produce reports based on the fiscal year, the calendar year, or according to an exact period defined by him. The budgetary year is defined separately as one of the system parameters of DMFAS version 5.2.
- *Adjusted amount*. For loans that have been registered as currency pool loans, the system allows the user to adjust the amounts of the report by the registered currency pool adjustment factors.
- *Selection of the individual columns*. The user can select from a list of columns, defined by the DMFAS staff, and put them together according to the user's own needs. This enables, for instance, the combination of stock and flows columns in the same report, either for previous transactions or for projections.
- S*pecification of the columns*. The user not only has access to the existing variables or aggregates for the columns but also can create his or her own aggregates and include them on the list of predefined columns. The users can, in this way, free themselves from waiting for the DMFAS staff to include new aggregates in the system's reports.

Specific reports

18.34 *Through direct access to the database*. With the help of Oracle Browser and Oracle Reports and other tools like Microsoft Access and Microsoft Query, the user can create reports by accessing directly the different DMFAS 5.2 database tables. In addition, any program supporting ODBC (**O**pen **D**ata**B**ase **C**onnectivity) may connect to the DMFAS version 5.2 database, giving the user with the appropriate access authorization the possibility to use the calculating, sorting, formatting, and graphics capabilities of the user's software on the DMFAS version 5.2 database. Most popular spreadsheets and database programs such as Excel, Lotus 1–2–3, and Access support ODBC. The links can be based on queries so that the result will change when new entries into the database are made. The contents of an Excel spreadsheet with a query selecting the outstanding amounts of all loans with U.S. dollars as loan currency will therefore automatically change without the Excel user's intervention as the outstanding nominal amounts of these loans in the database changes, and the same applies to graphs based on the same data.

18.35 The DMFAS 5.2 therefore has no limit to the number of report formats the user may create.

18.36 *By exporting the generated results into Excel.* The DMFAS system allows the easy export of the generated results into Excel for further manipulation of the data. However, contrary to the above ODBC option, the data in Excel or other similar spreadsheets is not automatically updated when modifications are made in the DMFAS database.

Analytical facilities

18.37 The analysis module has been specifically designed to calculate projections based on the outstanding nominal amount, and the present-value amount using CIRR interest rates as the rate of discount, of a debt portfolio. The use of present value instead of nominal value allows the user to take into account the terms and concessionality of a debt portfolio and to eliminate the effects of the concessionality. The module on projections based on the outstanding nominal amount is used, among other things, to calculate debt-service payments effectively owed, excluding future and hypothetical disbursements.

18.38 This module enables the user to choose between different parameters and calculation methods (the pro-rata and the truncation methods) of particular interest to produce and compare different scenarios for the debt-sustainability analysis of HIPC.

18.39 An interface has been created between the DMFAS system and DSM Plus of the World Bank, which is a tool designed to help officials analyze the external financing requirements of a country and to quantify the effects of debt-relief operations or new borrowing. This interface provides the DMFAS user with the means to export data from the DMFAS system for subsequent import into the DSM Plus system. The interface enables the DMFAS user to benefit directly from the data in the DMFAS database, avoiding the need to reenter that data in DSM Plus.

18.40 The DMFAS system also provides analytical support for debt managers by, for example:
- Facilitating easy **Registration of potential new debt** and analyzing the effect of these new debts on the future debt-service pattern;
- Permitting easy **Simulations** to determine the effect of interest rate fluctuations and exchange rate variations over a period of time;
- Calculating and giving information on **Detailed penalty (late) interest** from the scheduled date of a maturity registered as an arrear to a given date; and
- Calculating **Accrued interest costs**, which allows debt officers to generate automatically such information for, and at the end of, the previous month for use by other departments, including the accounting unit.

Executive Management

18.41 Executive debt-management features of the DMFAS, in combination with the World Bank's DSM Plus, include specialized reports to:
- Provide debt managers and planners with easy-to-use tools to assist in policy decision making, evaluation of alternative strategies, and development of negotiation strategies. These analytical and decision-support tools integrate debt data with other economic variables (for example, balance of payments components), allowing simulations of debt reorganizations and taking into account hypothetical new loans and financing.
- Provide debt managers with decision-support systems and analytical tools to assist in portfolio management and optimization of composition, maturities, and interest and exchange rate exposure. Such tools allow for sensitivity analysis through simulations that take into account, for example, exchange rate variations or fluctuations in floating interest rates.

Technical Characteristics

Overview

18.42 The DMFAS system has to be portable and easy to use because it has to work in an environment where its users may not be computer specialists. Therefore, significant effort has been devoted to making the system as user-friendly and as flexible as possible so that the user, to the largest extent feasible, can operate it independently of the technical staff of UNCTAD. In this light, the following features have been made standard:[6]

[6]For further information on hardware and software requirements, please refer to UNCTAD (2000). This document is regularly updated to include the most recent developments in software and hardware technology.

- Windows-based **Graphical user interface** that includes field-to-field navigation, color screens, Windows standards with "Shortcut Keys" and mouse support, easy selection of menu options from selection lists, etc.
- The **Code** file of the system is divided into standard and user-defined codes. This allows country-specific customization of codes, such as Location, Economic Sector codes, etc.
- **Language independence** permits the language-dependent parts of the system—for example, menus—to be separated from the system itself. In addition, the DMFAS is delivered with four standard languages included, and the user may easily switch from one language to another. This feature is particularly important for countries operating the system in languages (such as Russian) that they cannot use for reporting to the World Bank and other international organizations or creditors. In this way, they will have the option of producing the reports in English.
- **Access to system codes** allows the user to add, delete, or modify user-updatable system codes, provided he or she has sufficient "privileges" (see below).
- The user also fixes **Tolerance limits** for data validation in the system.

Security

18.43 The **Security** features in DMFAS 5.2 include preventing unauthorized personnel from viewing or editing data by assigning different access rights to different users—for instance, to ensure that only the database administrator has access to administrative functions of the system. If required, this **Access control** can be refined to permit the definition and enforcement per individual end-user of groups of data with which that user may work—particular creditors, for example—and, for each group of data, the operations that the user may perform. A facility of **Double control** allows managers to enforce validation of initial registry or modification of data by nominated people other than the user who first registered or modified the data. Among other advantages, the system, if calibrated that way, would not allow the entered or modified data to be used before the data were validated (for reporting purposes, for example).

18.44 ORACLE provides the possibility to keep and consult logs detailing the types of operations performed by each user and keeping track of what the data looked like before an operation in case of a modification.

18.45 ORACLE also provides backup and restore procedures as well as automatic recovery functions in case of power failure. This considerably diminishes the risk of corrupted data files.

Conversion software

18.46 For users of DMFAS versions 4.1 Plus or 5.0 who want to upgrade their installation to DMFAS version 5.2, UNCTAD has developed an interface for automatic conversion of data to version 5.2 format with minimum manual intervention by the user.

Support to other information systems

18.47 DMFAS 5.2 can be linked with other computer systems. The system may therefore provide debt data for other information systems, such as those dealing with balance of payments, budget, public and/or central bank accounting, government revenue and expenditure, currency management, etc.

Compatibility with network operating systems

18.48 As mentioned, DMFAS 5.2 is built on ORACLE's RDBMS relational client/server architecture. Consequently, DMFAS 5.2 can be run on any network operating system that supports the ORACLE 7.1 RDBMS server and can have Windows workstations as clients. This includes Novell, Windows NT, and UNIX.

Documentation and Training

18.49 A comprehensive set of *documentation* is available for DMFAS version 5.2. This includes:

- A comprehensive User's Guide;
- A DMFAS Glossary (see UNCTAD, 1998);
- A Database Administrator's Manual; and
- Technical documentation of interfaces when appropriate.

Training available from UNCTAD is described in the next chapter.

19. Provision of Technical Assistance in External Debt Statistics

Introduction

19.1 This chapter provides an introduction to the technical assistance in external debt statistics, and related macroeconomic statistics, provided by the international agencies involved in the production of the *Guide*. This chapter is not comprehensive of all the technical assistance provided in external debt statistics and is accurate as of the time of writing.

Commonwealth Secretariat

19.2 In addition to supporting the CS-DRMS[1] debt system in user countries, the Commonwealth Secretariat provides technical assistance to ministries of finance and central banks in various aspects of debt management related to data compilation, loan operations and analysis, capacity building, and policy advice. In the field of debt statistics, targeted assistance is available for:

- *Compiling debt data* extracted from various sources: Local staff are exposed to the techniques of making an inventory of loans through the interpretation of loan documents (loan agreements, creditor statements, general conditions and other creditor practices, etc.) so that all relevant debt information can be compiled/retrieved.
- *Recording loan instruments* using appropriate methodologies: Training is provided on the CS-DRMS system, which has taken into account different creditor practices and the agreed norms on compilation of debt statistics. The system allows user countries to record debt information (details, terms, and transactions) on a loan-by-loan basis. Subsequent developments, such as debt restructuring resulting from Paris Club agreements, can also be captured in the system.
- *Validating and reconciling* stocks, flows, and other details on a loan-by-loan basis, including with creditor records: Once a database is created, local staff are trained to validate the data and reconcile debt stock and debt-service levels with other sources (creditors or other agencies, including the World Bank). Any inconsistencies in classifying the data are addressed during this exercise.
- *Disseminating debt data* in the various formats required by different users: In recent years, dissemination of external debt data to various users, and in the format the information is required, has been a focal point of assistance. Users of CS-DRMS are trained in the various facilities that can provide data to users, both within and outside the country. These facilities include the 100 reports that are available in CS-DRMS; the facility to export information into spreadsheet for further manipulation; and the add-on facilities and built-in electronic links with other systems.

19.3 Also, as part of its capacity-building efforts, the Commonwealth Secretariat has developed a comprehensive training program in debt management aimed at enhancing the skills and knowledge of local staff with different levels of responsibilities, so that they are able to carry our their debt-management functions in an effective manner. These training modules, which can be customized to meet specific country needs, can be grouped under the following broad categories:

- Basic training programs such as the interpretation of loan/credit agreements (external and domestic debt); debt-restructuring operations, including for Paris Club and London Club; and debt data validation techniques;
- Basic and advanced courses in the use of CS-DRMS (and add-on software) for loan recording and administration; for timely reporting of debt statistics, including data extraction to other systems; and for supporting debt analysis such as portfolio analysis or debt-sustainability analysis;

[1]The main features of the Commonwealth Secretariat's Debt Recording and Monitoring System (CS-DRMS) are described in Chapter 18.

- Specialized courses and workshops on debt-management techniques and strategies, new debt initiatives, and new practices and standards; these are aimed at different audiences ranging from senior officials in governments to those involved in actual debt operations; and
- Seminars and consensus-building meetings on issues with wider implication for debt management—for example, the HIPC Initiative and debt sustainability in a liberalizing economic environment.

19.4 In delivering its advisory services to countries, the Commonwealth Secretariat has actively collaborated with various institutions—regional and international—especially in undertaking joint activities in specific countries (for instance, data validation) and in regional training programs.

European Central Bank

19.5 The Eurosystem,[2] under the coordination of the ECB, provides technical assistance to the central banks of the countries that are candidates to join the European Union (EU), the so-called accession countries,[3] with a view to preparing for their future integration into the European System of Central Banks (ESCB), and later into the Eurosystem. The ECB's technical assistance is primarily intended to help these countries implement data collection and compilation systems that will allow them in due course to meet the ECB's statistical requirements, and to contribute to properly articulated (aggregated and consolidated) statistics for the euro area. The assistance takes the form of seminars organized at the ECB or in different countries, and country visits conducted by ECB staff. The seminars may call on experts in national central banks of the EU and are targeted essentially at economists-statisticians and/or managerial staff of central banks and of national statistical institutes, where relevant. In cooperation with other institutions—notably, the European Commission (Eurostat) and the IMF—the ECB seeks to promote the adoption of current international statistical standards, in particular *1993 SNA*, *ESA95*, and *BPM5*.

19.6 The assistance provided by the ECB covers the various statistical areas of its competence within the EU: money and banking statistics, securities issues, interest rates, balance of payments and the IIP, and related issues—Special Data Dissemination Standard (SDDS), international reserves, external debt, etc. Within the EU, the ECB is solely responsible for money and banking and related statistics. Where competence is shared—which is the case for balance of payments statistics, with the European Commission (Eurostat) having responsibility within the EU for the current and capital accounts (and for compiling EU aggregates), and the ECB being responsible for the financial account (and for compiling euro-area aggregates)—the assistance is organized in close cooperation between the two institutions; close cooperation is also sought with other international organizations.

19.7 The ECB will also cooperate with the accession countries in the field of financial accounts, including time series for the rest-of-the-world account as specified in the *1993 SNA* and *ESA95*; compilation of financial accounts helps to promote consistency across statistical areas. External debt data are embedded in this framework on an instrument, rather than a functional, approach.

19.8 In addition to the assistance to accession countries, the ECB participates in seminars and workshops organized by regional institutions and forums (for example, Mercosur, West African Economic and Monetary Union, South African Customs Union) to share the experience gained in compiling aggregates for a group of countries.

International Monetary Fund

19.9 The IMF offers technical assistance for statistics including balance of payments, IIP and external debt, government finance, money and banking, and national accounts and price statistics. This work is reinforced by training courses and seminars for member country officials on statistical methodologies and their applications, including external debt and international reserves and related information. In addi-

[2]The Eurosystem comprises the ECB plus the National Central Banks (NCBs) of the 12 EU countries that had adopted the euro as of January 1, 2001. The ESCB comprises the Eurosystem and the central banks of the three other EU countries (Denmark, Sweden, and the United Kingdom).

[3]The term refers exclusively to countries that have started such negotiations with the EU, which at the time of writing the *Guide* were: Bulgaria, Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovenia, and the Slovak Republic. Turkey is also a candidate country, but negotiations have not yet started.

tion, the IMF provides information on statistical topics via its public website, at *http://www.imf.org/external/np/sta/index.htm.*

19.10 In all areas, 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 General Data Dissemination System (GDDS). Technical assistance missions generally discuss a draft report with country authorities while in the field, which is later finalized with the benefit of the authorities' comments.

19.11 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. A Panel of Experts is established to recognize those experts who have, by virtue of their experience and qualifications, demonstrated their capacity to contribute to the technical assistance program of the Statistics Department in one or more areas of macroeconomic statistics. The IMF also undertakes multisectoral 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 not only address the issues related to each sector, but also consider the consistent treatment of data and coordination arrangements across sectors, and provide short- and medium-term action plans for improving statistics, including follow-up missions in the topical areas.

19.12 Technical assistance is provided only when requested by a country's authorities. Since the demand for such assistance normally exceeds the resources available from the IMF, a number of considerations are taken into account in prioritizing country requests for technical assistance, including the extent to which (1) the country's authorities are strongly supportive of obtaining the assistance and committed to ensuring its implementation; (2) the technical assistance addresses those weaknesses in a country's institutional capacity for macroeconomic policy implementation that have been identified in the course of the IMF's surveillance and other work; (3) the assistance contributes to strengthening a country's capacity to design and implement an IMF-supported program; and (4) the assistance supports a country's efforts to comply with internationally agreed standards and codes of transparency. The IMF recognizes that at times the systemic or regional importance of the requesting country and/or the emergence of a need as a result of a post-crisis situation may influence a decision to provide technical assistance.

19.13 The IMF also offers training courses in statistical methodology at the IMF Institute in Washington, D.C., the Joint Vienna Institute, the IMF-Singapore Regional Training Institute, the Joint Africa Institute in Abidjan, the Regional Training Program in the United Arab Emirates, and at several other regional sites. These seminars are up 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.

19.14 For further information on the IMF's technical assistance and training courses, please contact:

Director
Statistics Department
International Monetary Fund
Washington, D.C. 20431, U.S.A.

Organisation for Economic Co-operation and Development

19.15 There is no formal program of technical assistance by the division responsible for the Creditor Reporting System (CRS) of the OECD. However, Secretariat staff provide technical support to member country creditor reporters, both in Paris and through missions to capitals of reporting countries. In addition, non-OECD members occasionally visit Paris to discuss reporting problems, and differences between debtor and creditor reporting. For example, staff from the Indian Ministry of Finance and from the Federal Reserve Bank in Mumbai are regular visitors to the OECD.

19.16 The OECD hosts PARIS21—the Partnerships in Statistics for development in the 21st Century. Created in 1999, PARIS21 is a global consortium of statisticians, policymakers, and other users of statistics that supports the development of statistics in developing and transition countries. Not a new agency, it works through existing global, regional, and national structures. Its members share an interest in strengthening national statistical capacity as the foundation for effective policymaking. PARIS21 promotes dialogue between users and producers of statistics, initially in subregional workshops. This dialogue leads to country action plans—known as Strategic Statistical Development Plans—for the development of sustainable statistical capacity for a wide range of data—economic (including external debt statistics), social, and environmental. The production of such plans, and their implementation, usually requires technical assistance. By working with the DAC, which brings together the bilateral donors and the European Commission, the IMF, the United Nations Development Programme (UNDP), and the World Bank, PARIS21 emphasizes the importance of statistics in attaining and monitoring development goals, and promotes closer coordination among donor programs of statistical capacity building assistance. For more details see the PARIS21 website, *http://www.paris21.org.*

United Nations Conference on Trade and Development

19.17 UNCTAD's training program in debt management consists of a number of individual predefined training modules that are organized according to orientations, "blocks," and level of management. This module approach allows a great deal of flexibility in the design of training programs and is used by UNCTAD to communicate with DMFAS[4] users in order to design programs customized for individual countries, debt offices, and/or groups of users.

19.18 The UNCTAD training framework has three orientations:

- Internal capacity building within the national debt-management framework;
- Software and computer (including DMFAS training); and
- General debt management.

19.19 These orientations are organized within two different categories of training blocks:

- **Block 1** is what may be described as the *general knowledge base*, which is the minimum knowledge any participant should have on each one of the orientations. General knowledge base training comprises all basic knowledge and is of general applicability for all those working in the field of public debt.
- **Block 2** is what may be described as the *specialized knowledge base*, which is the targeted training given to different officers so that they can exercise their specific mandated functions or tasks. Specialized knowledge base training has specific applicability for those working in the field of public debt.

19.20 Within each component and block, the training activities are designed for three levels of management: senior management, middle management, and operational staff. The delivery of the different training modules will, in general, follow a progressive approach within each level and will evolve from general knowledge to specialized knowledge base training over time. In all cases, the training is always based on the latest version of DMFAS and the different information it can produce.

World Bank

19.21 The World Bank offers technical assistance in statistical capacity building to its client countries so as to facilitate the production and wide dissemination of key economic, social, and environmental statistics. Such data support economic management and poverty-reduction strategies.

19.22 Technical assistance is provided through institutional capacity-building projects, advisory functions, training, and related activities. Whatever the modality through which technical assistance is delivered, these programs are essentially country-oriented, although regional programs are sponsored when similar issues are encountered within regional groups and where a common approach can be effective. In all areas, technical assistance draws on international statistical standards and methodologies,

[4]The DMFAS (Debt Management and Financial Analysis System) is a computer system designed for use in the management of public debt. It was described in detail in Chapter 18.

good practices in statistical capacity building, and recent technological developments.

19.23 Technical assistance activities are usually demand driven and are in response to needs and priorities identified by member countries, in collaboration with Bank staff in the course of their country economic and sectoral work, or other international organizations. The goal of coordination among stakeholders—between donors and between entities in the national statistical system—is, most importantly, to avoid duplication of effort and improve harmonization of procedures, thereby reducing transaction costs. As a mechanism for donor and recipient coordination, the World Bank has supported the creation of a consortium, PARIS21, which provides a forum for policymakers and statisticians from around the world to discuss issues of statistical capacity building and to agree on modalities for delivering assistance to strengthen statistical capacity.

19.24 The thrust of the Bank's technical assistance work has increasingly been on promoting coordinated, demand-led, and knowledge-based technical assistance for building sustainable statistical capacity and covering both comprehensive (or integrated) statistical capacity building as well as programs relating to specific aspects of the national statistical system.

19.25 A comprehensive approach to statistical capacity building covers all dimensions of the national statistical system (see Figure 19.1). The objective here is to:

- Strengthen statistical infrastructure by establishing sound legal and institutional frameworks for the collection, processing, and compilation of statistics;
- Enhance organizational arrangements through improved organizational structure and better coordination among statistical agencies and through managerial reforms involving emphasis on strategic management and corporate planning;
- Improve staffing methods through better human resource management and development;
- Upgrade technical and physical resources through newer data collection techniques, application of newer statistical methodologies, and modern information management systems (with appropriate customization on a country-specific basis); and
- Provide training in new data concepts and in international standards for reliable and consistent data compilation, quality control, and widespread dissemination.

19.26 By contrast, specific programs address gaps in segments of a country's statistical system such as national income accounts, environmental statistics, or debt data systems. But like comprehensive programs, specific programs also address organizational and functional issues.

19.27 Bank-sponsored technical assistance activities are financed by grants or loans. Grant financing is through World Bank grants[5] and grants from Bank-administered trust funds.[6]

19.28 Small and medium-sized technical assistance programs may be part of a large World Bank project loan. For larger programs, stand-alone loans in the form of a Learning and Innovation Loan (LIL) or a Specific Investment Loan (SIL), often with cofinancing through partnership arrangements with bilateral donors and other international agencies, are also possible. The country technical assistance program preparation is normally financed through grants and the implementation and monitoring through a combination of grants, and loans with appropriate burden sharing by the client country (often in-kind). For some middle- and high-income countries, technical assistance participation is encouraged on a reimbursable basis.[7]

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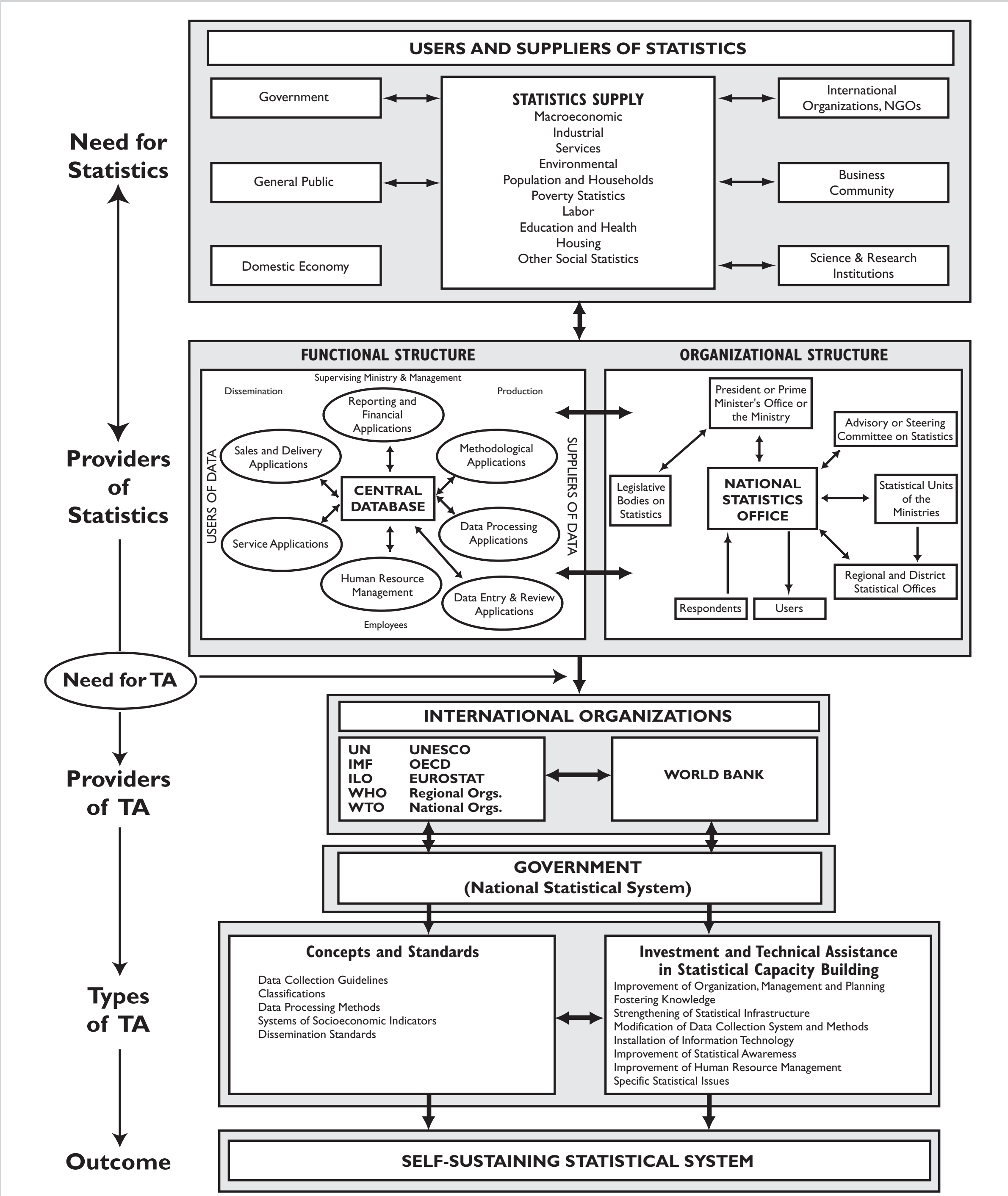
[5]The World Bank's Institutional Development Fund (IDF) was established in FY1993 to provide technical assistance grants for "upstream" institutional development not directly linked to the lending operations of the Bank. The IDF is used for funding small, action-oriented schemes identified in the course of country economic and sectoral work and policy dialogue.

[6]Includes trust funds that finance advisory services and technical assistance. These trust funds cover a wide range of activities, including project preparation and preinvestment studies, economic and sectoral work, institution building, pilot projects, training, and conferences. The advisory services may support recipient activities directly or support Bank activities and may be provided through trust fund programs or through free-standing trust funds. In FY2000, bilateral donors established a new global technical assistance facility to promote statistical capacity building. The Bank on behalf of donors manages the Trust Fund for Statistical Capacity Building.

[7]Under "reimbursable arrangements," Bank services are specifically requested, and their costs are fully reimbursed. Such arrangements are undertaken with member countries that are no longer active Bank borrowers but still require technical assistance, and with partner development institutions that contract with the Bank to provide assistance for loan preparation, appraisal, or supervision services.

Figure 19.1. World Bank Technical Assistance (TA) in Institutional Capacity Building in Statistics



19.29 Technical assistance in improving the coverage and quality of debt statistics has been an essential component of Bank technical assistance programs in public debt management in several countries—for example, as a component of a public debt-management LIL, a Technical Assistance Loan (TAL), or a Public Sector Reform Loan (PSRL). Technical assistance activity in debt statistics is likely to cover a wide range of items, including organizational structure of the national debt office, data collection methods, database management systems, data needs for strategic debt management, dissemination practices, and training of debt office staff.