



10

Overview of Data Compilation

Introduction

10.1 External debt statistics can be compiled from a variety of sources, using a range of methods. Statistics can be collected from the debtor, from the creditor, or indirectly through information from financial intermediaries in the form of surveys, regulatory reports, and/or from other government administrative records. But a precondition for reliable and timely statistics is that the country has a strong and well-organized institutional setting for the compilation of statistics on public debt—so that all public and publicly guaranteed debt is well monitored and managed—and private debt, and for the compilation of aggregate external debt statistics.¹ To this end, the institutional setting should ensure that: (1) the responsibility for collecting, processing, and disseminating the statistics is clearly specified; (2) data sharing and coordination among data-producing agencies are adequate; (3) individual reporters' data are kept confidential and used for statistical purposes only; and (4) statistical reporting is supported through legal mandate and/or measures to encourage response.

10.2 This chapter considers some of the important institutional issues that need to be addressed when undertaking the compilation of external debt statistics, and the strategies that need to be considered as the regulatory environment for financial transactions changes. In particular, it emphasizes the need for a coordination of effort among official agencies, with one agency having overall responsibility for compiling and disseminating external debt statistics for the

whole economy, and for appropriate legal backing for statistics collection.²

10.3 Subsequent chapters provide practical guidance on how external debt statistics might be compiled. They are not intended to be comprehensive. Indeed, some elements of external debt statistics are easier to compile than others. For instance, compiling external debt statistics on, say, a government's foreign-currency loan from a group of nonresident banks is more straightforward than, say, collecting information on nonresident ownership of a government's domestic bond issues. But both sets of statistics are required. It is particularly difficult to obtain statistics on nonresident ownership of debt securities, especially instruments that are not registered—so-called bearer instruments—and so a separate chapter (Chapter 13) is devoted to this issue.

Coordination Among Official Agencies

10.4 If the responsibility for debt compilation is shared among several agencies, it should be clearly established which agency has the primary responsibility for compiling external debt statistics. Responsibility could be assigned through a statistical law or other statutory provision, interagency protocols, executive decrees, memorandums of understanding,

¹ See *Effective Debt Management*, UNCTAD/GID/DMS/15 (1993) and *Private Sector External Debt: Main Issues and Challenges to Monitoring*, UNCTAD, DRI, 2002.

² The IMF's Data Quality Assessment Framework (DQAF) for external debt statistics provides a flexible structure for the qualitative assessment of the external debt statistics. It comprehensively covers the various quality aspects of data collection, processing, and dissemination. The first level covers the prerequisites of quality in which, among others, the legal and institutional environment is assessed (see detailed information on the External Debt DQAF in Appendix 6). See also the *European Statistics Code of Practice* (Eurostat) and the *ECB Statistics Quality Framework* (SQF, ECB) for the application of quality assurance procedures for the statistics compilation.

etc. In addition, clear arrangements or procedures should exist to facilitate data sharing and coordination among the agency with the primary responsibility for compiling external debt statistics and the other data producing agencies.

10.5 The *Guide* does not recommend which institution within an economy should be responsible for compiling and disseminating external debt statistics. This is dependent on the institutional arrangements within the economy. Nonetheless, it is likely that the main compiling agency is the central bank, the ministry of finance, an independent debt-management office, or a national statistical agency.³ One approach is to establish the agency in charge of compiling data for the balance of payments and International investment position (IIP) as the main compiling agency for external debt, so promoting consistency among these three related sets of data. Indeed, as noted in Chapter 7, reconciliation of external debt statistics with the financial account of the balance of payments provides a good consistency check, as well as analytically useful information.

10.6 In whatever way the statistics are to be collected and compiled—and invariably a range of methods and approaches will be adopted—the process will be resource intensive. Thus, where there is more than one agency involved in the compilation of external debt statistics, there should be a cooperative effort, avoiding duplication of effort, and ensuring as far as possible consistency of approach across related data series. With modern computerized techniques, different units can be connected through computer networks facilitating the specialization of the different institutions concerned, without hindering data reporting and compilation. In this regard, procedures to ensure, as far as possible, smooth and timely flows of data between data compiling agencies are essential.

10.7 It is important to ensure that there are well-established contacts between the staff of the different agencies, so that any problems or difficulties can be dealt with in an expeditious manner, and that there

is an avoidance of duplication of data coverage in the different institutions. One way of encouraging cooperation, developing contacts, and resolving problems that arise is to hold regular meetings among staff of the various agencies at the working level. Not only could these meetings help resolve problems that might be arising, but there would also be an opportunity to notify each other of upcoming developments and possible future enhancements or changes to collection systems. This type of cooperation helps ideas to spread and improvements to be made, allows institutions to understand each other's position, and helps build important personal contacts.

10.8 Also, if external debt statistics are collected by different agencies, there are a number of considerations that must be borne in mind. First, the concepts and methodologies used and instruments presented should be consistent, or at least reconcilable. So, in merging together various sources, the main compiling agency must ensure that other contributing agencies are aware of and supply statistics that are consistent with core concepts, methodologies, and presentation requirements (such as residence, valuation, etc.) as outlined in the *Guide*. Indeed, the main compiling agency should develop expertise in these standards and, in a sense, act as their guardian within the economy. Also, there are other presentations outlined in the *Guide* that policymakers and other users may encourage compilers to disseminate, or that may need to be compiled to meet international commitments. The data compilers in the main compiling agency will need to ensure that statistics supplied by the other agencies meet the requirements for these other presentations—both in terms of the coverage as well as the periodicity and timeliness on which these statistics have to be provided.

10.9 Further, it is recommended that, as far as possible, comparison of figures with creditors be carried out on a regular basis, at least once a year, although the compiling agency will need to check whether the creditor data are being compiled on the same basis as the national data. This comparison can be undertaken either on an individual instrument basis (e.g., individual government loans) by the agency responsible for compiling these statistics or at an aggregate level using international datasets, such as the Bank for International Settlements (BIS) International Banking Statistics and the Joint External Debt Hub (JEDH,

³ A national statistical agency may be a user of the debt data, in the sense that the data are communicated by the ministry of finance and/or the central bank to the national statistical agency for publication.

see www.jedh.org)—a database jointly developed by the BIS, International Monetary Fund (IMF), Organization for Economic Cooperation and Development (OECD), and the World Bank—that brings together external debt data from international creditor/market sources and national/debtor sources (see Appendix 3 for information on this database).

10.10 There should be mechanisms to ensure that the compiled external debt data continue to meet the needs of policymakers and other users. Meetings could be periodically convened with policymakers and other data users to review the comprehensiveness of the external sector statistics and to identify any emerging data requirements. New initiatives could be discussed with policy departments and statistical advisory group(s); such discussions provide scope for seeking additional resources. From these discussions, and in consultation with both users and other compiling agencies, the main compiling agency might devise a strategic plan to improve the quality and coverage of external debt statistics.

Resources

10.11 Resource allocation decisions are the preserve of the authorities in each economy and should be periodically reviewed. Nonetheless, the authorities are encouraged to provide at least adequate resources to perform existing tasks, i.e., adequate staff, financial, and computing resources. In particular, key staff should be knowledgeable and well versed in external debt concepts and compilation methods, including the *Guide*, and a core contingent of trained external debt statisticians should be retained at any point in time. Instructions for performing existing tasks should be maintained. New compilers could be provided formal and on-the-job training in external debt compilation methods, including international statistical standards and system procedures for handling and processing of data.

Legal Backing for Data Collection

10.12 When the authorities closely regulate foreign borrowing, external debt data may well be a by-product of the regulatory system. But as liberalization of financial flows proceeds, the comprehensiveness of information from regulatory reports may be reduced, and it may become harder to identify entities engaged in

external debt transactions. So the need to approach the private sector directly for statistical purposes increases. Without appropriate legal backing, it may be very difficult to acquire the required information from private sector entities.

10.13 Obtaining appropriate legal support for statistics collection could be a complicated and lengthy process likely to be undertaken infrequently. Given this, a first step should be to determine whether there is any existing legal support for statistics collection that could be employed to acquire the required information. If not, and it is considered necessary to seek additional legal support, the need may well run wider than “just” the collection of external debt data. Indeed, in an environment of liberalization, a comprehensive review of the sources of statistical information and the legal support needed might be required.

10.14 The terms of legal backing for the collection of statistical information vary from country to country, depending, not least, on the institutional arrangements and the historical development of statistical gathering. Nonetheless, some elements typically covered include:

- The designation of the type of entities that the compiling agency can approach for data (e.g., entities in the private business sector) and for what purpose (e.g., to monitor economic activity and financial transactions)
- The boundaries of the compiling agency’s responsibilities, without being so restrictive that the agency does not have the freedom to adapt as a new development emerges (e.g., financial derivatives)
- The possibility of imposing penalties on respondents for nonresponse, which should be accompanied by an appropriate legal mechanism for enforcement⁴
- A clear statement that information supplied by individual entities would not be separately disclosed and would only be published in the form of statistical aggregates (except, perhaps, where explicit permission is given from an individual

⁴Consideration might also be given to the possibility of imposing penalties on respondents for misreporting (i.e., intentionally providing incorrect data).

entity to disclose information), along with appropriate penalties for the compiling agency and, in particular, individual employees, if such information is disclosed

- A prohibition on the use by the authorities of information supplied by individual entities for any purpose other than statistics compilation, thus establishing the independence of the statistics compilation function from other government activity (e.g., taxation authorities); the prohibition should be supported by penalties and a mechanism for their enforcement
- A prohibition on other government agencies influencing the content of statistics releases⁵
- The establishment of an oversight committee of independent experts to help ensure the professionalism and objectivity of the compiling agency

10.15 With such legal backing, the statistics compiling agency would have the necessary support for the collection of information from enterprises and commercial banks. Nonetheless, the compiling agency should not rely solely on legal backing but rather use the legal backing to help and encourage the private sector to report (see paragraph 12.30).

Collection Techniques at Different Stages of Liberalization

10.16 As mentioned above, liberalizing financial transactions is likely to affect the information available from statistical reports.⁶ Provided that liberalization proceeds on a step-by-step basis, the agency or agencies responsible for external statistics, including external debt, should develop a strategy to ensure that good-quality statistics continue to be compiled and disseminated. Part of this strategy involves considering whether there is a need to strengthen the statistical infrastructure, as discussed above—the need for legal backing and for improved cooperation and a clear distribution of compilation responsibilities

⁵Data integrity is very important for the statistical function. Where compiling agencies have an operational as well as recording function, consideration might be given to delineating functions so that the statistical function operates at “arm’s length” from other functions.

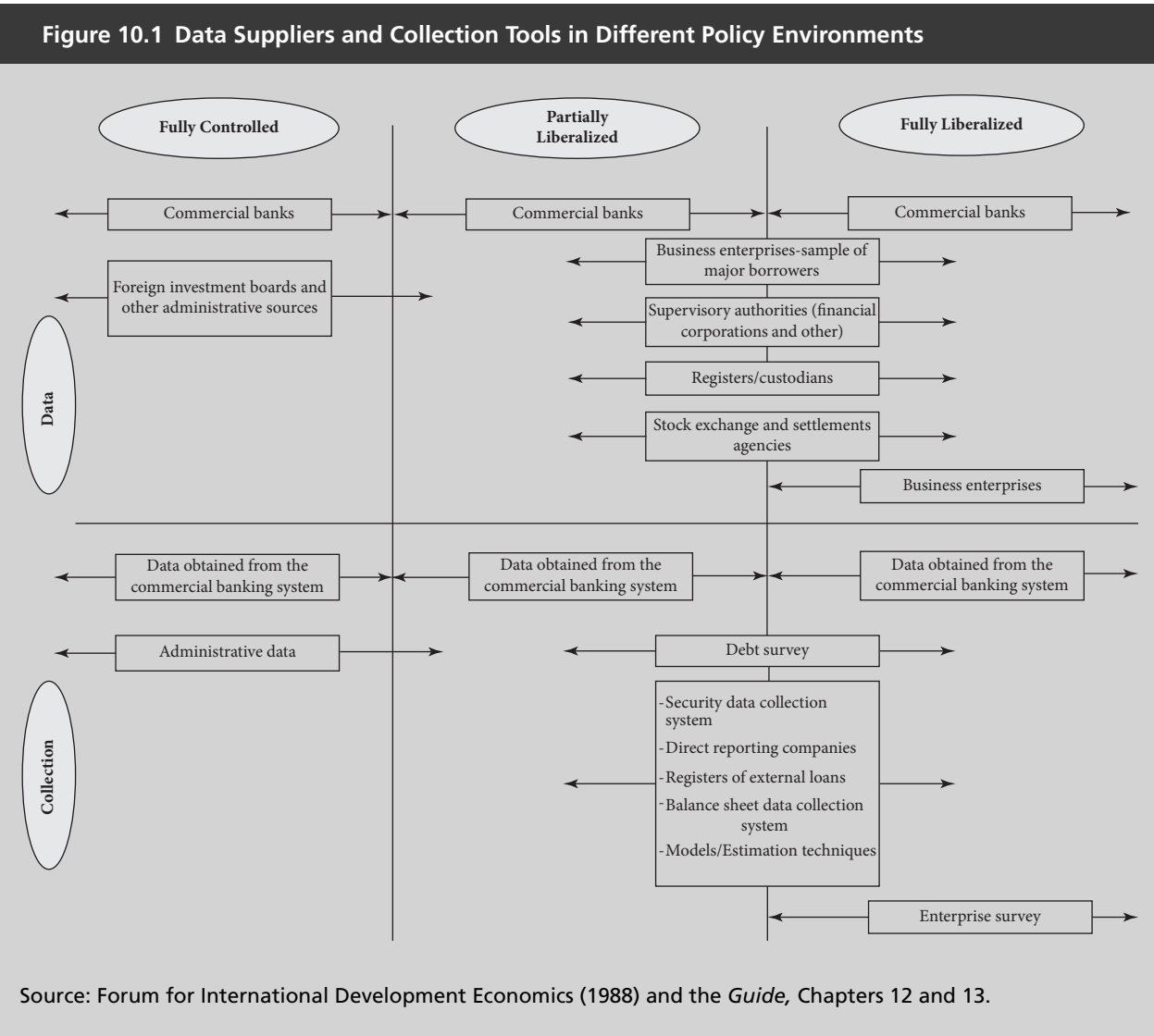
⁶This section draws on Forum for International Development Economics (1998).

among the various interested compiling agencies. But collection techniques also need to be considered. Figure 10.1 provides a stylized view of the techniques that can be used as the process of economic liberalization proceeds.⁷

10.17 In Figure 10.1, in an environment with strict controls, data are provided primarily from administrative sources, such as foreign investment boards, and from commercial banks, for their own and their domestic clients’ transactions. As financial transactions are increasingly liberalized, the information that enterprises need to report directly increases, in terms of the number of enterprises and the information required. The information provided by the public sector and commercial banks on their own debt remains broadly unchanged throughout.

10.18 In a partially liberalized environment, when some enterprises begin to get greater freedom to borrow abroad, the comprehensiveness of the traditional administrative and commercial bank sources of information is reduced. Commercial banks may remain a valuable source of information on their clients’ activities, but there could well be a need to supplement this data source by requiring reports from those enterprises given permission to borrow directly abroad, i.e., undertaking external transactions without involving the domestic commercial banks. For instance, those borrowing directly abroad could be asked to report on individual borrowings as they are undertaken (i.e., to provide information on external debt only) and/or be asked to report periodically on a survey form that covers external assets and liabilities and any associated income flows, i.e., a survey that is part of the data collection programs employed to compile external sector statistics. In addition, supervisory authorities, registrars and custodians, and stock exchange and settlement agencies may become supplementary sources of information. Supervised (financial and nonfinancial) enterprises may report useful information to their supervisory authorities, such as balance sheet data. Custodians and registrars may provide relevant information on nonresident holdings of debt securities issued by residents.

⁷While presented as three stages of policy environments, it is more likely that a continuous spectrum of liberalization will be experienced.



10.19 As liberalization proceeds—and the statistical agency becomes less dependent on administrative and commercial bank sources, and more dependent on obtaining the necessary information from private enterprises—its job becomes more complex. The statistical agency or agencies will need to develop and/or deepen the necessary human skills needed to compile data in a more liberalized environment, including for a core set of staff.⁸ These include developing skills in conducting surveys, in developing and maintaining a

⁸One of the potential benefits of compiling external debt statistics in conformity with other macroeconomic data series is that staff mobility can be enhanced. For instance, basic conceptual knowledge and compilation skills developed for a related set of macroeconomic data can also be relevant for external debt statistics, and vice versa.

register of companies, and in quality control as well as enhancing knowledge of the basic conceptual framework. The partial liberalization phase could provide an opportunity to develop these capabilities in an environment where the traditional sources of information are still relevant, albeit to a lesser extent.

10.20 The idea of a phased approach allows the statistical agency, or agencies, to develop the capabilities required for these changed circumstances over time. Given that there will be difficulties and costs in undertaking the institutional changes required, a phased approach could help minimize these costs for all concerned.

10.21 Whether a country wants to take a phased approach to the implementation of detailed reporting

of the foreign activities of private enterprises might depend on a range of factors including the resources and legal backing it has for conducting surveys. But by the time an economy fully liberalizes capital movements, it is important that the statistical agency or agencies have in place the capability to monitor the foreign activities of the private sector. Otherwise, economic policymakers and private sector investors might be misled into underestimating the degree to which private enterprises have accumulated external debt, with consequential negative repercussions for the economy at a later stage.

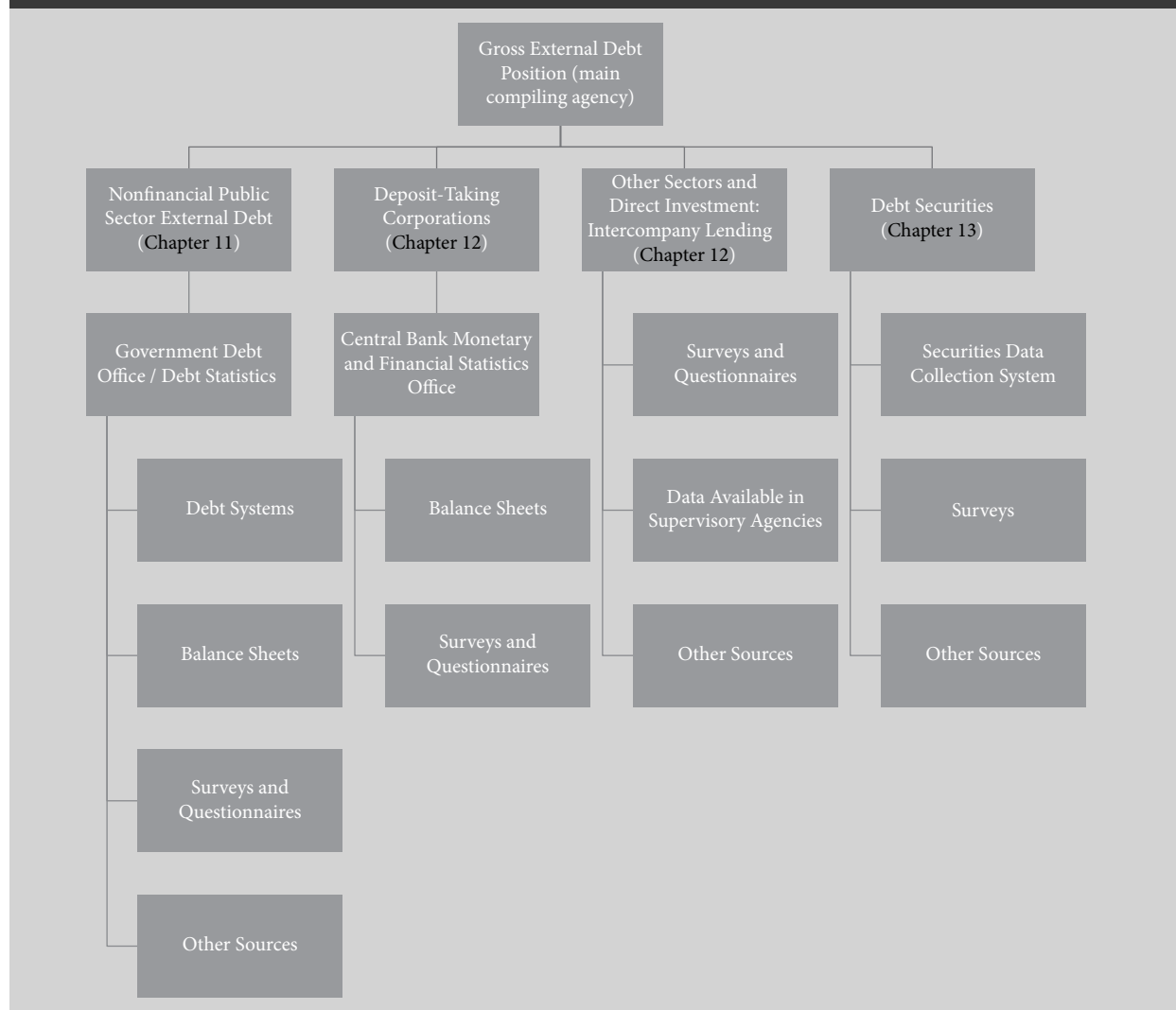
10.22 Finally, if it is decided that a new system is required both for balance of payments and IIP as well as for external debt, perhaps because circumstances have changed such that there is a significant

weakening of the reliability of traditional sources of information, it is important that the objectives for the new system be established at the start. For instance, the timeliness and frequency of results need to be determined because these could affect both the types of survey and the resources required. Similarly, the importance of the data to policymakers needs to be ascertained because any collection needs to be considered within the context of overall statistical priorities. Inevitably, resources in the compiling agency and among respondents are limited.

Overview of Data Sources

10.23 Figure 10.2 further provides an overview of the possible data sources for the compilation of the gross external debt position. These sources can be grouped

Figure 10.2 Gross External Debt Position: Possible Data Sources



under four main headings. They are discussed in the subsequent chapters: public sector external debt compilation in Chapter 11, deposit-taking corporations and other sectors in Chapter 12, and debt securities in Chapter 13.

10.24 Figure 10.2 is not intended to be comprehensive and mainly refers to data sources that generally are available and not necessarily mutually exclusive. The relative importance of different types of external debt—depending on national circumstances—may contribute to the judgment a compiler might have to make in determining the resource allocation between the different data sources.

Dissemination of External Debt Statistics

10.25 The compilation of external debt statistics is undertaken for the ultimate purpose of making these data available to policymakers and other users. Data should be publicly disseminated on a frequent and timely basis, preferably according to a well-established, preannounced release schedule. The dissemination of data could be in print and/or electronic form, and may also be included as part of an external debt bulletin. As part of the dissemination process, the concepts, definitions, classifications, and methodology (metadata) used should be documented and disseminated in publication form at regular intervals. The metadata should also identify any significant deviations from internationally accepted standards, biases in the data, and information about response rates to the main surveys employed in collecting external debt statistics.

10.26 The regular production and dissemination of external debt bulletins⁹ can provide the public with a clear, comprehensive, and up-to-date review of the developments in the gross external debt position of an economy. The debt bulletin should be clear and precise in presenting the data. Thus, tables and charts included should state in the titles the coverage and periodicity of the time series disseminated. A table of contents with information included in the bulletin is highly recommended. Data disseminated should be in line with the coverage, and concepts

and definitions set up in the *Guide* and other relevant international statistical standards. Metadata with information about the data sources, compilation methods, and statistical framework (i.e., concepts and definitions) used should be included in the bulletin. In developing a debt bulletin, the use of technical terminology should be balanced allowing compilers and users an adequate use of the information disseminated. An external debt bulletin may include detailed information on the composition of the gross external debt position (e.g., by sector, currency of denomination, maturity, creditor, and interest rate), valuation, debt transactions, and other debt indicators to support the analysis of the financial structure of the economy.

10.27 It is recommended that the periodicity and timeliness of external debt statistics follow the IMF data dissemination standards (SDDS or GDDS). Box 4.1 in Chapter 4 provides detailed information on the SDDS and GDDS specifications regarding the dissemination of external debt statistics. Both the SDDS and the GDDS recommend that data on external debt be compiled according to the guidelines of the *Guide*. Compilers are also encouraged to report external debt data to the Quarterly External Debt Statistics (QEDS) database that was created in 2004 to improve the transparency, timeliness, and availability of external debt data. See Appendix 3 for more details on the QEDS and other international databases on external debt.

10.28 Invariably, to meet the needs of users, data will be published that could well be subject to later revision. In such instances, users should be alerted that the initially published data are preliminary and may be subject to revision. If revised data are later published, users should be informed of the revisions, with explanations, i.e., if possible, the practice of revisions should follow a predictable pattern of which users of statistics are informed,¹⁰ preliminary and revised data should be clearly identified, and users should be informed of results and studies of the revisions to the statistics. In addition, if major changes to the

⁹In some economies, these bulletins may cover external and public sector debt statistics.

¹⁰That means that the revision cycle should be predetermined and reasonably stable from year to year and made known to the public; the reasons underlying the cycle should be explained as well. Revisions outside the regular cycle should be made known and explained to the public.

statistical methodology are to be implemented, it is strongly recommended that users be given advance warning, and sufficient back runs of data provided after the revisions have been published: historical revisions to prior years are highly encouraged when substantial revisions to coverage and/or methodology take place, with a view to ensuring the consistency of the series of external debt.

10.29 Data revision is a continuous process, e.g., for quarterly statistics, in principle, preliminary data need to be released one quarter after the end of the reference quarter. Although practices may differ across countries, in many cases these data are revised when data for the following quarter become available, e.g., Q1 data are revised when Q2 data are released. When annual results are available from collections, data for all estimated quarters in the year (and perhaps for one or more earlier years) may be

subsequently revised. When data from annual surveys become available, the quarterly data should be revised accordingly: the difference between end-year position reported on the annual survey and the year-end position derived from quarterly estimates may be distributed equally (and cumulated) over the three quarters, unless other information suggests a different pattern (available information may suggest that the adjustments to the three quarters should not be equal, e.g., if exchange rate movements or transactions were particularly significant in a single quarter); then a different pattern of adjustment should be considered.

10.30 In general, providing the user with information on revisions and revision practice is likely to engender greater confidence in the statistics and may help encourage a “culture of reporting” to the compiling agency(ies).