

**Mauritius: Report on Observance of Standards and Codes—Data Module;
Response by the Authorities; and Detailed Assessment Using the Data Quality
Assessment Framework**

This Report on the Observance of Standards and Codes on Data Module for **Mauritius** was prepared by a staff team of the International Monetary Fund as background documentation for the periodic consultation with the member country. It is based on the information available at the time it was completed on **April 8, 2002**. The views expressed in this document are those of the staff team and do not necessarily reflect the views of the government of **Mauritius** or the Executive Board of the IMF.

The Response by the Authorities on this report, and the Detailed Assessment Using the Data Quality Assessment Framework (DQAF) are also included.

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MAURITIUS

Report on the Observance of Standards and Codes (ROSC) Data Module

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April 8, 2002

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EXECUTIVE SUMMARY

This Report assesses the quality of Mauritius's macroeconomic statistics and data dissemination practices as of July 2001.¹ The main conclusions are as follows:

- **GDDS participation.** Mauritius meets the GDDS recommendations for coverage, timeliness, and periodicity for most of the categories of macroeconomic data, although there are some important exceptions. Mauritius has prepared action plans to enhance statistical performance in a number of areas.
- **SDDS.** Although Mauritius so far meets relatively few of the requirements of the Special Data Dissemination Standard (SDDS) (those it meets relate largely to the periodicity with which a number of statistical series are disseminated), by developing and forcefully implementing an action plan now, Mauritius should be able to meet most, if not all, the remaining requirements for subscription within a period of about two to three years. Because of the long lead times involved, an early priority in this regard will be to conduct a comprehensive survey of enterprises, banks, and other financial institutions to facilitate the generation of data on Mauritius's external transactions, the international investment position (IIP), and external debt positions.
- **Prerequisites of quality.** Mauritius's statistical agencies have an institutional structure, and considerable experience, that supports data quality. Agencies demonstrate an awareness of quality as the cornerstone of statistical work. The authorities may wish to take the opportunity of amendments to the Bank of Mauritius (BOM) Act and the Financial Services Act to strengthen further the legal underpinnings by making explicit the BOM's responsibility for compiling and disseminating monetary and balance of payments statistics.
- **Integrity.** All three agencies demonstrate professionalism and provide ethical guidelines to their staff. A number of measures could be taken to improve transparency—for instance, by disseminating information on major revisions to data, identifying instances of prior internal government access to statistics, and in all publications identifying the agency and unit that compiled the data.
- **Methodological soundness.** National accounts broadly follow the internationally endorsed standards of the *System of National Accounts 1993 (1993 SNA)*; the consumer price index is also in line with international standards. Fiscal accounts are in line with the *A Manual on Government Finance Statistics 1986 (1986 GFSM)*; steps will need to be taken to adopt the accrual accounting framework mandated in

¹ Since July 2001, the authorities have taken various measures to improve official statistics. These measures are detailed in Part II of the ROSC Data Module.

the new *Government Finance Statistics Manual, 2001 (GFSM 2001)*. Monetary statistics follow the earlier international guidelines, and steps are needed to incorporate the requirements of the recently issued *Monetary and Financial Statistics Manual (MFSM)*. The concepts and definitions of the balance of payments statistics are generally in line with the methodology set out in the fifth edition of the *Balance of Payments Manual (BPM5)*. However, there are a number of gaps in coverage, data are recorded on a cash, rather than an accrual, basis, and the *BPM5* component structure is not yet used for part of the financial account.

- **Accuracy and reliability.** Apart from a few aspects (in particular the use of the single indicator method rather than the recommended method of double deflation for compiling volume measures of GDP), national accounts, the consumer price index, government finance statistics (GFS), and monetary statistics receive high marks for accuracy and reliability. Source data for the balance of payments statistics have a number of deficiencies, including data sources for the offshore sector and non-cash financial transactions.
- **Serviceability.** National accounts and the consumer price index are relevant and timely. GFS are not sufficiently timely to be used for policy purposes. The periodicity and timeliness of monetary statistics are fully in line with GDDS recommendations, and could quickly be brought within the range of the SDDS prescription. The periodicity of balance of payments statistics is within the SDDS prescription; timeliness falls short of the GDDS recommendations, primarily because quarterly data are disseminated only annually.
- **Accessibility.** Mauritius's statistics are accessible to users through Internet websites and hard copy publications. However, in many cases there are no pre-announced schedules for data release, and the availability of additional detailed information from the compiling agencies is generally not publicized. Methodological descriptions are limited. Contact persons and phone numbers are generally not provided with statistical publications, although assistance is available in the compiling agencies.

I. INTRODUCTION

1. This Report on the Observance of Standards and Codes (ROSC) provides a summary assessment of Mauritius's data dissemination practices against the IMF's General Data Dissemination System (GDDS) and an in-depth assessment of the quality of the national accounts, consumer price index (CPI), government finance, monetary, and balance of payments statistics. The assessment of the quality of the datasets relies on the Data Quality Assessment Framework (DQAF) developed by the IMF's Statistics Department (STA). Socio-demographic statistics are not covered in this assessment. Since Mauritius has undertaken to subscribe to the Special Data Dissemination Standard (SDDS) in the future, this report also identifies some of the key steps that have to be taken before subscription can take place. The agencies that compile the statistics assessed in this report are the Mauritius Central Statistics Office (CSO), the Ministry of Finance (MOF), and the Bank of Mauritius (BOM).

2. This report was prepared by a mission from STA that visited Port Louis during July 18-31, 2001.² Part I, Summary Staff Report, includes an executive summary, a brief description of Mauritius's current data dissemination practices, a summary assessment of the data quality of Mauritius's macroeconomic statistics, and Fund staff recommendations. Part II contains the response of the authorities, and Part III contains various technical appendices, among which the more detailed staff assessments.

II. DATA DISSEMINATION PRACTICES AND THE GDDS: CURRENT DISSEMINATION PRACTICES

3. This report applies the recommendations of the GDDS to Mauritius's core macroeconomic statistical frameworks and indicators. Where shortcomings are found, the report pays special attention to existing plans for improvement. It should be noted that the implementation of these plans may depend on additional resources or external technical assistance.

4. Mauritius participates in the GDDS and started posting its metadata on the IMF's Data Standards Bulletin Board (DSBB) in September 2000. Three main agencies produce official statistics in Mauritius: (1) the Central Statistics Office (CSO), under the auspices of the Ministry of Economic Development, Financial Services and Corporate Affairs, is responsible for statistics related to the national accounts and most socio-demographic statistics; (2) the Bank of Mauritius (BOM), which is responsible for the depository corporations survey³ and the compilation of the balance of payments; and (3) the Ministry of

² The mission comprised Mr. Cornelis Gorter, Ms. Marie Montanjees, Mr. Roman Skarzynski, and Mr. Ethan Weisman. Mr. Charles Enoch, Senior Advisor, joined the mission from July 26-31.

³ The "depository corporations survey" is a core framework recommended by the *Monetary and Financial Statistics Manual (MFSM)* for presenting consolidated monetary statistics. The GDDS uses the term "broad

(continued)

Finance (MOF) responsible for statistics on central government operations in cooperation with the CSO that also compiles and disseminates general government data.

5. Mauritius provides access to these data through a variety of publications and the following Internet websites:

- Central Statistics Office: <http://statsmauritius.gov.mu>
- The Bank of Mauritius: <http://bom.intnet.mu>
- Ministry of Finance: <http://ncb.intnet.mu/mof.htm>
- Ministry of Economic Development, Financial Services and Corporate Affairs: <http://ncb.intnet.mu/medrc/index.htm>

Data Dimension: Coverage, Periodicity, and Timeliness

6. In general, Mauritius meets the GDDS specifications for the core comprehensive frameworks and recommended indicators; the principal exceptions are listed below. On coverage, the most important exceptions are the broad money and credit aggregates, which omit offshore banks, the Post Office Savings Bank, and the nonbank depository financial institutions. The balance of payments has gaps in the coverage of data on income, direct investment, and non-cash transactions. Other important exceptions include the periodicity and timeliness of production indices, the timeliness of the fiscal data and the periodicity of the central government budgetary aggregates, the periodicity and timeliness of the external debt and debt service data, and the timeliness of the balance of payments statistics and international reserves. (See Table III-1 in Part III for a comparison of the coverage, periodicity, and timeliness for macroeconomic data in Mauritius with GDDS recommendations.)

7. Concerning extensions encouraged by the GDDS, the exceptions to the GDDS recommended practices include the incomplete coverage for the international investment position and the lack of data on reserve related liabilities. On periodicity and timeliness, other exceptions to the GDDS encouraged practices include the periodicity and timeliness of the producer price index and central government interest payments, as well as the timeliness of government guaranteed debt.

Quality Dimension

8. Documentation on the methodology used to compile the statistics for all the macroeconomic statistics is available on the DSBB and hyperlinks to this website are

money survey” for this framework. The term “monetary survey,” also used in this report, refers to the narrower defined framework that the Fund recommended prior to the publication of the *MFSM*.

provided on the BOM, CSO, and MOF websites. In addition, brief statements of methodology are published by MOF and CSO for GFS, and by the BOM for the monetary statistics.

Integrity Dimension

9. The GDDS requires the disclosure of information on laws, regulations, decrees, etc. that govern the collection, compilation, and dissemination of data, including information on the confidentiality of the data collected. The terms and conditions under which official statistics are compiled and disseminated in Mauritius are available to the public—in electronic and non-electronic formats—and they provide a legal framework that supports the integrity of the statistical system. Procedures on internal government access to the data prior to public release are disseminated on the DSBB, but not on the websites of the compiling agencies themselves.

Access Dimension

10. Advance release calendars are available for real sector statistics. Fiscal, monetary, and external sector statistics are released on a regular basis, but no advance release calendars are disseminated. In most cases the data are released to all interested parties simultaneously. The CPI is first released on the Internet, however this practice is not publicized.

Plans for Improvement

11. Plans for improving data quality form an integral part of the GDDS. Plans for the real sector statistics focus on strengthening the national accounts through the development of quarterly national accounts. In addition, the CSO plans to expand the coverage and change the weights and base year of the producer price index (PPI), and extend methodological improvements to the lowest level of the CPI. The CSO also plans to support statistical improvements in fiscal, monetary and financial, the external sector, and other macroeconomic and social statistics. The MOF plans to improve the timeliness of the fiscal data, strengthen coverage of, and publish data on, the overall public sector, and begin to report quarterly budgetary central government data in fiscal year 2001/02. The MOF also intends to work with the CSO to prepare a plan for the migration to the Government Finance Statistics Manual, 2001 (*GFSM 2001*). The BOM intends to begin to implement the new *Monetary and Financial Statistics Manual (MFSM)*, speed the dissemination of data on reserve money and related indicators, and document internal compilation procedures. On the balance of payments, the BOM plans to improve coverage and timeliness, disseminate more detailed data, document compilation procedures for internal use, and introduce other technical adjustments. (See Table III-2 in Part III for details on Mauritius's plans as of July 2001 for improving data quality. That table does not include any follow-up that the authorities may have given to the recommendations in the present report.)

III. SUMMARY ASSESSMENT OF DATA QUALITY

12. A detailed assessment of five macroeconomic datasets (national accounts, CPI, government finance statistics, monetary statistics, and the balance of payments statistics) was conducted using a dataset-specific DQAF (Technical Annex III). On the basis of this information, the summary assessments given below were prepared. The mission's conclusions also are presented as standardized summary tables in which the assessment of data practices is made on a qualitative basis using a five-part scale (Table I.1 in the present document and Tables III.3-7 in Part III).

13. On the whole, Mauritius's real sector statistics are adequate. However, work is required to introduce the new *GFSM 2001* and the *MFSM*, and to improve statistics on the external sector. The Fund staff found a number of shortcomings in current statistical practices that have the potential of hindering the accurate and timely analysis of economic and financial developments and the formulation of appropriate policies. However, the authorities should be able to address these weaknesses in a relatively short time, implying that Mauritius could meet all or nearly all of the requirements of the SDDS within a period of two to three years. The main findings detailed below are presented following the structure of the DQAF.

Prerequisites of Quality

Quality, as defined in the framework, encompasses quality of the institution or system behind the production of the data as well as the quality of the individual data product. This approach is rooted in the United Nations Fundamental Principles of Official Statistics and in the more traditional quality-of-the-product approach. In the DQAF, the prerequisite of quality category serves to capture this systemic perspective.

14. The **Central Statistics Office**, under the umbrella of the Ministry of Economic Development, Financial Services and Corporate Affairs (MEDFSCA), prepares most of Mauritius's real sector and social-demographic statistics. The CSO operates under the recently adopted Statistics Act 2000, which defines, among other things, the CSO's tasks, its authority to collect data, and the confidentiality of individual information. The Statistics Act 2000 also created a Statistics Advisory Council (SAC) that assembles representatives of all main stakeholders in Mauritius's statistics. The SAC will advise the Minister on priorities, the formulation of work programs, and quality aspects of Mauritius's statistics. The number of staff employed by the CSO is broadly adequate, but any new statistics or further improvement will require an increase in staff. The training and experience of staff is satisfactory. The CSO has been allocated sufficient financial resources to compile its regular statistics. Computer facilities are also adequate. Since Mauritius subscribed to the GDDS, the CSO has undertaken major efforts to improve the quality of its statistics. Special quality assurance teams for monitoring quality indicators, conducting periodic reviews, and conducting process improvement studies do not exist. However, it should be noted that the CSO is not a large organization, and that management performs many such tasks.

15. Regarding the two main agencies involved in the production of government finance statistics, the **Ministry of Finance** and the **CSO**, the institutional arrangements are broadly adequate as long as coordination remains at the current level. Specific legal authority has not been granted to compile fiscal data, although this has not hampered the coordination efforts of the MOF and CSO to compile these data. While computer resources are adequate for current compilation practices, any additional demands (such as increasing the frequency, timeliness, and coverage of the data or implementing the new *GFSM 2001*) would overtax these resources. In addition, staff resources are stretched to the limit and would be insufficient to meet future needs. Few efforts have been made to extend automation to areas other than budgetary central government. Efforts to improve efficiency are ad hoc and informal. There is duplication of effort in the MOF and CSO to collect data on extra-budgetary units and local government. There are no formal processes to monitor the quality of the production and dissemination of GFS.

16. The statistical work of the **Bank of Mauritius** is governed by the 1966 Bank of Mauritius Act. Although the BOM's responsibility for processing and disseminating statistics is not clearly specified in the law, the Bank has compiled and disseminated the monetary statistics and balance of payments statistics since its establishment in 1967. Amendments to the BOM Act, due to be enacted in the 2001/2002 financial year, are expected to expand and clarify the authority and responsibility of the BOM to collect data from nonbank depository financial institutions for the monetary statistics and from any entity for balance of payments purposes. The arrangements for data sharing are adequate to ensure the smooth flow of information among various BOM departments for the purpose of compiling monetary statistics. Data sharing and coordination among the data-producing agencies (BOM, CSO, MOF, and the Accountant-General) and within the BOM are adequate for the compilation of the balance of payments statistics. The BOM Act provides for the confidentiality of the source data, and procedures are in place to ensure that respondents' data are kept confidential and are used only for statistical purposes. Resources, including computer facilities support, are adequate for the BOM's statistical activities. Measures are implemented to ensure efficient use of resources available for compiling and disseminating monetary statistics. To a great extent, the compilation of data is automated, and built-in checks and validations are used to exercise quality control at every stage of the data production process. A number of advisory and oversight bodies have the authority to monitor the accuracy, timeliness, and coverage of monetary and balance of payments statistics, including the Statistics Advisory Council, the Banking Committee, and the BOM's technical committee on statistics.

Integrity

Integrity identifies features that support firm adherence to objectivity in the collection, compilation, and dissemination of statistics. Professionalism and technical standards should guide policies and practices, which should be reinforced by their transparency.

17. Under the Statistics Act 2000, the Director of the **CSO** ensures the independence of the statistical information produced by that agency. The Director has the sole responsibility for deciding the procedures and methods to be employed in the provision of statistics, as well

as the extent, form, and timing of publication and dissemination of any statistics produced by the Office. The CPI published in the Government Gazette does not mention the compiling agency. In the past, the Director of the CSO has chosen to refrain from commenting on erroneous interpretation or misuse of the CSO's statistics. The new Statistics Act 2000 makes provision for the Chair of the Statistics Advisory Council to issue statements on such issues. Internal government access to statistics prior to their release exists, and is identified. Advance notice of major methodological changes is not given, but the public is informed of such changes at the time they occur. Applicable to all civil servants, ethical rules for staff are laid down in the Code of Ethics of Public Officers and the Official Secrets Act, both of which are published. The Statistics Act 2000 (which is available in hardcopy and on the CSO website) contains further provisions concerning the faithful and honest fulfillment of duties of staff and the limitations on disclosure of information that comes to their knowledge by reason of employment.

18. Professionalism and ethical standards in the **MOF** are adequate, but aspects of transparency could be strengthened, particularly those concerning advance notice of methodological changes. The MOF staff are not permitted to comment on the erroneous interpretation or misuse of GFS. Approval processes for publication of GFS are not made public.

19. The statutory provisions under which the **BOM** compiles the monetary statistics and balance of payments are adequate to support its independence in conducting these functions. Statistics are compiled on an impartial basis and staff are free to choose the most appropriate data sources and statistical techniques. The Bank of Mauritius Act and the Banking Act are available to the public on the BOM website. The professionalism of the staff is actively promoted by encouraging participation in lectures, conferences, seminars, and training courses. The BOM Act provides broad ethical guidelines for employees of the BOM and, in addition, the staff of BOM are bound by a formal code of conduct promulgated by the Bank. The BOM has the right to comment on erroneous interpretation and misuse of the statistics, although this right is rarely used. However, practices are not always transparent: (i) revised data are not always identified or disseminated, (ii) the public is not always informed of major changes in methodology, even at the time the revised data are released, (iii) the public is not informed of inter-departmental and internal government access to the data prior to release to the public, and (iv) the balance of payments statistics are not clearly identified as being compiled by the BOM.

Methodological Soundness

Methodological soundness refers to the application of international standards, guidelines, and agreed practices and is indicative of the soundness of concepts and definitions, scope, classification and sectorization, and basis for recording. This dimension will, by necessity, be dataset specific, reflecting specific standards (for example, the 1993 System of National Accounts (1993 SNA) for national accounts and the fifth edition of the Fund's Balance of Payments Manual (BPM5) for balance of payments).

20. Since the April 16, 2001 issue of the Economic and Social Indicators, Mauritius's **national accounts** are based on the concepts and definitions recommended by the 1993 SNA. The scope is broadly consistent with international standards and agreed practices. Financial accounts and balance sheets are not compiled and some new types of assets defined by the 1993 SNA have not been distinguished as yet. No estimates of consumption of fixed capital are published. The classifications and valuation methods used are in accordance with international recommendations. However, part of the government and external transactions are recorded on a cash, instead of an accrual, basis.

21. The **CPI** concepts and definitions are based on the international standards and recommendations of the International Labor Office (ILO). The basket of the CPI is classified by the functional classification recommended by the 1968 SNA. The valuation rules used for recording flows and stocks are in accordance with the 1993 SNA, and prices are recorded in the period the purchases are made.

22. **GFS** are compiled following the *GFSM 1986*, including the concepts, definitions, scope, classification, and the basis of recording. Financing tables are available only for the consolidated central government (including social security and extra-budgetary units), however the transactions of consolidated central government represent most of the value of the transactions of general government. In general, the classification and sectorization follows the *GFSM 1986*. A few small units are not properly sectorized, but the sectorization is under review by the MOF and CSO.

23. The analytical framework used for compiling **monetary statistics** reflects concepts and definitions that are, in general, based on the IMF's draft *Guide to Money and Banking Statistics in International Financial Statistics* of December 1984. Following the publication in September 2000 of the *MFSM*, the BOM intends to revise its procedures and formats for the collection, compilation, and dissemination of monetary statistics to comply with the new methodology. This involves expanding the scope of the monetary statistics to include the offshore banks, the Post Office Savings Bank, and the nonbank depository financial institutions, applying market price valuation for financial instruments, improving the sectorization and classification of accounts, and using an accrual, rather than cash, basis of recording. Furthermore, following the establishment of the Financial Services Commission as a regulatory authority for nondepository financial corporations, consistency of data collection, compilation, and dissemination frameworks will have to be strengthened to permit the consolidation of the Financial Corporations Survey, comprising both depository and nondepository financial corporations.

24. The concepts and definitions used for the **balance of payments statistics** are generally in line with the methodology set out in *BPM5*, although the definition of general government is inaccurate. In the recent past, there has been some confusion on the part of respondents about the definition of residency; this affects the data compiled for the period up to the third quarter of 2001. There are significant gaps in the coverage of the data, particularly the offshore sector and non-cash financial transactions. Although the classification is broadly consistent with the main aggregates of the *BPM5*, data for a number

of the standard *BPM5* components of the Current Account and most of the standard *BPM5* components of the Financial Account are not disseminated. There are also a number of instances of misclassification of the data. Transactions are recorded at market prices and converted at the exchange rates prevailing at the time of transaction, with the exception of the merchandise trade data, which use exchange rates fixed on a weekly basis. Contrary to the recommendations of *BPM5*, data are recorded almost entirely on a cash, rather than accrual, basis, and reserve asset transactions include changes in prices and exchange rates. In accordance with international standards, the Current Account transactions are recorded on a gross basis (with some exceptions), and Financial Account transactions are recorded on a net basis.

Accuracy and Reliability

Accuracy and reliability identifies features contributing to the goal that the data portray the reality of the economy. Elements include identified features of source data, statistical techniques, and supporting assessments and analysis. Data should sufficiently portray reality at all stages of dissemination, from “flash” to “final” estimates. Data should also be routinely assessed for errors, discrepancies should be investigated, and revisions studies should be published.

25. The **national accounts** estimate agriculture, fishing, and forestry on a functional basis. Available sources on the input structure for these activities are very old. For other industries, the CSO makes use of the Central Business Register that has been constructed on the basis of licenses and registrations. Even informal units are recorded in this register. The collection program comprises a five-yearly Census of Economic Activities and a system of annual surveys of market activities. Detailed accounting data are received from the Accountant-General in addition to the annual questionnaires sent to government agencies. The survey program for household operations covers a decennial population/housing census, a five yearly household budget survey (HBS), and the Continuous Multi-Purpose Household Survey. All of these are well designed. External transactions are derived from foreign trade statistics and the balance of payments. Output estimates are compiled at a sufficient industrial detail, namely, at the five-digit level of the ISIC Rev. 3. In general, in compiling GDP by activity, the ratios used are not older than five years. The technical coefficients of large enterprises are refreshed every year, and for the small enterprises they are determined on the basis of the five-yearly Census of Economic Activities. Variations in the accounting year used by enterprises and in valuations of changes in inventory reduce the accuracy of the data. The compilation techniques are usually sound, but the single indicator method rather than the recommended double deflation method is used for compiling volume measures of GDP according to the production approach, except for some industries (notably sugar). Validation procedures are used, but the internal processes and procedures problems are not made public. There is a relatively large discrepancy between GDP estimated according to the production method and GDP estimated by aggregating final expenditure categories. Due to the difficulty in estimating the level of household final consumption directly, the official estimates of GDP are based on the production method and household consumption is determined as a residual.

26. The source for the **CPI** weights is the quinquennial HBS. The survey sample methodology and the estimation procedures of the HBS are reviewed every five years. The weights emerging from the HBS are adjusted for known underreporting in particular items, such as tobacco. The selection of the list of goods and services to be priced for the CPI, as well as the outlets from which price quotes are collected, has been made on the basis of a study into the buying habits of the population. The prices of perishable items are collected on a weekly basis, while those for non-perishables are recorded once a month. The statistical techniques used meet international standards, except that prices that are temporarily missing (up to three months) are carried forward, instead of being imputed on the basis of changes in the prices of similar products, and arithmetic average rather than the recommended geometric averages are used. Validation procedures are in place but the results of the process are not published.

27. In **GFS**, the source data for extra-budgetary units (EBUs) and local governments are not timely. For these units, no financing data are available and there are no estimates for missing data. However, the value of these activities is small compared with those of the budgetary central government. There is no direct link between the Treasury Automated System for the budgetary central government and GFS. Accuracy is favored at the expense of timeliness. Most government source data are audited by the Director of Audit. GFS data are not used for policy purposes. Discrepancies between the CSO and MOF data (and the BOM domestic financing data) are small. No revision studies are made as the GFS data for general government are based on final audited information.

28. Source data for **monetary statistics** are derived from accounting records and cover the full range of balance sheet positions. At present, these data do not adequately approximate the *MFSM* definitions and recommendations regarding the scope, sectorization, classification, valuation, and accounting basis. The BOM's plans for implementing the principles of the *MFSM* include the redesign of the data-reporting framework. The timeliness of the source data is adequate, and sufficient time is provided for the compilation of monetary statistics. Statistical techniques applied in the compilation are sound and a number of built-in consistency checks and validations are used to ensure data consistency. However, there are no written compilation procedures. Monetary statistics are considered final when published and are rarely subject to revisions.

29. The source data for the **balance of payments statistics** are deficient in a number of areas, including the transactions of the offshore sector and non-cash financial transactions. Most data are reasonably timely. The compilation procedures include cross-checks of the data and comparisons with related data, and the source data are assessed for response errors. However, the lack of written compilation procedures leads to classification and compilation errors. No adjustments are made for valuation, or the basis of recording, and coverage adjustments are made only to a limited extent. Revision studies and analyses are not carried out on a routine basis, and the public is not informed of the results of any such analyses.

Serviceability

Serviceability focuses on practical aspects of how well a dataset meets users' needs. Elements include the extent to which data are produced and disseminated in a timely fashion, with appropriate periodicity, are relevant, are consistent internally and with other datasets, and follow a predictable revisions policy.

30. Every year, two estimates of the **national accounts** series are prepared. The timeliness, but not the periodicity, of the data meets the requirements of the SDDS. The status of preliminary data is clearly identified. Consistent time series data are available without break for a period of at least five years. The national accounts are internally consistent. Any discrepancies between the estimates are analyzed, but the analysis is not normally made available to the public. The public also is not informed of the reasons for revisions. The needs of non-governmental users are not regularly monitored.

31. The **CPI** is monthly and published ten days or less after the reference month, which meets the SDDS requirements for periodicity and timeliness. Consistent time series data are available without break for the periods between successive five-yearly HBSs. Methods and weights are reviewed regularly in the context of the HBS; back series are calculated by means of linking factors for an overlap year. Once published, the index is considered final. The CSO assesses whether the CPI adequately responds to user needs by means of the CPI Advisory Committee.

32. **GFS** are not used to formulate, monitor or evaluate fiscal policy and are not available with adequate timeliness to allow users to track fiscal policies. Currently, central government operations and debt data are published only annually about nine to eleven months after the end of the reference year. Annual general government data are not timely and are published about one year and nine months after the end of the reference year. Domestic financing of the consolidated central government contains a small residual, but no note to this effect accompanies the published data. Feedback from users is not sought on a regular basis.

33. The **monetary statistics** meet the periodicity requirement of the SDDS and the timeliness recommendation of the GDDS. The statistics would meet the timeliness requirement of the SDDS if they were disseminated on the Internet as soon as available. This change would reduce the lag in the public release of the data from seven weeks to less than a month. The monetary statistics are internally consistent and are broadly consistent with the government finance and the balance of payments data.

34. The periodicity of the **balance of payments statistics** meets the requirements of the SDDS. However, the timeliness of the data is not within the recommended range of the GDDS, primarily because the quarterly data are disseminated only once a year. The data are disseminated in an aggregated form, and although detailed data can be obtained on written request, the public is not informed of this in the BOM publications. Revised data arising from changes in coverage and compilation practices are not always disseminated. The revision policy is not made public, and the public is not informed of the reasons for revisions. The

balance of payments data are consistent with the government external debt data published by MOF, and largely consistent with the trade data published by CSO. There is no formal system for monitoring and reviewing queries from users to determine whether the existing data meet user requirements.

Accessibility

Accessibility deals with the availability of information to users. Elements of this dimension refer to the extent to which data and metadata are clear and easily available and to which assistance to the user is adequate to help them find and use the data.

35. **National accounts** estimates are disseminated at a detailed level through a dedicated annual national accounts publication (National Accounts of Mauritius) and in the series *Economic and Social Indicators*. The data are also posted on the website of the CSO and the parent ministry, MEDFSCA. The series shown in the publications, however, usually cover only four years. Longer time series data on diskettes are available on request, but this is not publicized. Contact persons and telephone numbers from whom to obtain further information are not identified in the publications. A fairly comprehensive description of national accounts methodology is published. The release schedule also is predetermined and stable from year to year and an advance release calendar is disseminated on the web.

36. The main results of the **CPI** are disseminated every month on the Internet and in the *Government Gazette*. More details are included in the editions of *Economic and Social Indicators* dedicated to the CPI. The latter publication also includes a discussion of the main items. Although the calculations distinguish between 251 item classes, the CPI is only published by nine major commodity groups. The public is not informed of the availability on request of longer time series data on diskette. The CPI is released according to a continuously updated advance release calendar published on the CSO's website. However, this relates to the quarterly publication rather than the first release of the index. The first release (which takes place on the Internet) is not on a specific day and hour, but rather at the very moment the data are ready. This procedure is not publicized. Comprehensive descriptions of both the HBS and CPI methodologies are published every five years in the relevant issue of the publication Household Budget Survey. Prompt and knowledgeable service and support to users is given on request, but no information on how to contact the CSO by telephone is mentioned in the publication.

37. User access appears adequate regarding **GFS**. However, there are neither pre-announced schedules for the release of GFS, nor a bulletin of forthcoming publications. Nonconfidential data are made available on request; however the terms and conditions on which these data are provided are not published. No detailed technical descriptions of concepts, sources and methods are published. No contact person or unit and phone numbers are identified in the publications. A brief statement of the methodology describing GFS compilation practices is posted on the MOF website, along with a hyperlink to the GDDS metadata posted by the IMF on the Dissemination Standards Bulletin Board (DSBB).

38. The presentation of **monetary statistics** by the BOM, which shows the data for the central bank and the commercial banks in a balance sheet format, facilitates the interpretation of the data by the users. The data are released simultaneously to all interested parties through the publication of the BOM's *Monthly Statistical Bulletin (MSB)*, which is posted in electronic format on the BOM's website on the same day. Although there is no publicly announced data release schedule, the BOM strictly follows an internal publication schedule, according to which the *MSB* is released no later than the 20th of each month. A brief statement of the methodology underlying the compilation of the monetary survey is posted on the BOM website and has been published in three consecutive issues of the *MSB*. The BOM website also has a hyperlink to the GDDS metadata posted by the IMF on the DSBB. The detailed database maintained by the Money and Banking Statistics Section of the Research Department is not available to users outside the section. Details of contact persons from whom assistance can be obtained are not included in the publications. Requests for data from users inside and outside the central bank are considered on a case-by-case basis. External users' queries are directed within the BOM to the Money and Banking Statistics Section. Although there is no formal catalogue of BOM documents, the BOM website has a publication section on which it posts copies of its publications free of charge.

39. The **balance of payments statistics** are released simultaneously to all interested parties through the publication of a table in the *MSB*. As with the monetary statistics, there is no formal advance release calendar. While the format of the balance of payments table broadly follows the main aggregates of the *BPM5* presentation, there are a number of aspects that seriously hinder interpretation by users and meaningful comparisons. The dissemination medium used (a single-page table in the *MSB*) offers limited scope for providing detailed data, time series data, or analysis and commentary—issues that could possibly be addressed by supplementing the *MSB* table with additional data disseminated on the BOM website. No documentation on the methodology used to compile the data is published by the BOM, and the details of contact person or unit are not identified in the BOM publications. Although, as with the monetary statistics, there is a hyperlink from the BOM website to the GDDS metadata on the Fund's DSBB, which gives information on these aspects, the existence of this hyperlink is not publicized. The availability of detailed data on request in writing is not publicized. As with the monetary statistics, there is no formal catalogue of BOM publications.

Table I. Data Quality Assessment Framework: Summary Presentation of Results

Element	National Accounts (NA)	Consumer Price Index (CPI)	Government Finance Statistics (GFS)	Monetary Statistics (MS)	Balance of Payments Statistics (BOP)	Comments: Paragraph Nr. **	Plans for Improvement*
0. Prerequisites of quality							
0.1 Legal and institutional environment	O	O	LO	LO	LO	14-16	0.2 Short-term: Duplication of efforts in data collection will be reviewed (GFS).
0.2 Resources	O	O	LNO	O	O		
0.3 Quality awareness	O	O	O	O	O		
1. Integrity							
1.1 Professionalism	O	O	LO	O	O		
1.2 Transparency	O	LO	LO	LO	LNO	17-19	
1.3 Ethical standards	O	O	O	O	O		
2. Methodological soundness							
2.1 Concepts and definitions	O	O	O	LO	LO	20-24	2.1-4 Within 2 years: Implementation of <i>MFSM</i> recommendations (MS). 2.1 Short-term: Preparation of a plan for migration to the <i>GFSM 2001</i> (GFS). 2.2 Short-term: Improvements of various categories, including repairs, services and interest transactions of banks, compensation of employees, and transfers (BOP). Medium-term: Publication of quarterly consolidated general government accounts and compilation of public sector statistics (GFS). 2.3 Short-term: reclassification of other investments and improvement of insurance data (BOP). 2.4 Short-term: removal from changes in prices and exchange rates from reserve asset data (BOP).
2.2 Scope	LO	O	LO	LO	LNO		
2.3 Classification/sectorization	O	O	O	LO	LO		
2.4 Basis for recording	LO	O	O	LNO	LNO		
3. Accuracy and Reliability							
3.1 Source data	LO	O	LO	LO	LO	25-29	3.1 Medium-term: Census of agriculture (NA). Revision of sources as part of <i>MFSM</i> project (MS). Expansion of sources, possibly an enterprise and bank survey, and a survey among NGOs (BOP). 3.2 Short-term: Documentation on compilation procedures (BOP). Medium-term: Use of geometric averages (CPI).
3.2 Statistical techniques	LO	LO	O	LO	LO		
3.3 Assessment and validation	LO	LO	O	O	O		
3.4 Revision studies	O	O	NA	NA	LNO		
4. Serviceability							
4.1 Relevance	LO	O	LNO	O	LO		
4.2 Timeliness and periodicity	O	SDDS	LNO	O	LO	30-34	4.2 Short-term: Publication of quarterly budgetary central government statistics (GFS). Improvement of the timeliness to 6 months (BOP). Medium-term: Publication of quarterly accounts (NA). Reduction of lag in the dissemination of consolidated central government data (GFS).
4.3 Consistency	O	O	O	O	LNO		
4.4 Revision policy and practice	LO	O	LNO	NA	LNO		
5. Accessibility							
5.1 Data accessibility	LO	LO	LO	LO	LO	35-39	5.1 Short-term: Format national presentation improved. Dissemination of more detailed data, including <i>BPM5</i> services components and portfolio investment broken down into debt and equity securities (BOP). 5.3 Short-term: Publication of the <i>Guide to the Central Statistics Office</i> (NA, CPI).
5.2 Metadata accessibility	O	O	O	O	O		
5.3 Assistance to users	LO	LO	LO	LO	LO		

* Plans of the authorities as of July 2001.

** Paragraph numbers refer to Section III, Summary Assessment of Data Quality, in the present document. A detailed assessment is included in Technical Appendix III (Part III of this ROSC data module).
Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Practice Not Observed; SDDS = Complies with SDDS Criteria

IV. FUND STAFF RECOMMENDATIONS

40. Based on the results of the data quality assessments and subsequent technical discussions with the authorities in the respective statistical agencies, Fund staff propose the following measures for consideration to bring Mauritius's statistics into greater compliance with best practices and improve the usefulness of the data for users:⁴

Overarching recommendations

Short-term

- Develop plans for subscription to SDDS, including preparations for enterprise and bank surveys to facilitate the compilation of the International Investment Position;
- Support the Statistics Advisory Council in the performance of its functions, including increasing coordination among the major statistics-producing agencies and educating users in concepts, methods, and analytical applications of macroeconomic statistics;
- Improve transparency through identifying internal government access to statistics prior to their release, publicizing the availability of statistics and methodological descriptions and how to obtain them, and providing advance notice on major changes in methodology, source data, and statistical techniques;
- Improve assistance to users through publishing contacts for user inquiries, publicly announcing data release schedules, and actively seeking feedback from data users on a regular basis. Agree on the principle and procedure for commenting on the erroneous interpretation or misuse of statistics.

Medium-term

- Implement plans for subscription to SDDS.
- Disseminate descriptions of revision policies and practices, especially for fiscal, monetary and external sector statistics. Also indicate clearly preliminary estimates, revised data, and final statistics.

National accounts

Short-term

- Continue the project to develop quarterly national accounts and start the dissemination of the data in the form of methodological papers;
- Publicize the availability of longer time series;

⁴ In this context, 'short-term' relates to one year or less, 'medium-term' to more than one year, but less than five years. However, in order to achieve subscription to the SDDS within three years, the authorities will have to implement a number of medium-term recommendations.

Medium-term

- Develop financial accounts and balance sheets as a complement to the currently produced accounts;
- Consider publishing a shorter version of the national accounts methodology for non-specialized users.

Consumer price index

Short-term

- Release the CPI on a preannounced day and time;
- Publish the CPI in more detail than the nine main categories;
- Add the source to the CPI data in the *Government Gazette*;
- Start imputing prices for temporarily missing items.

Government finance statistics

Short-term

- As the highest priority, improve the periodicity and timeliness of the published GFS. In particular, publish quarterly data on the budgetary central government beginning with data for fiscal year 1998/99. In the future, quarterly data should be disseminated within one quarter from the end of the reference period. Also, put emphasis on the timeliness of data on EBUs and local governments;
- Develop a plan for the migration to the *GFSM 2001*;
- Review data collection by MOF and CSO to reduce duplication.

Medium-term

- Publish quarterly data on the consolidated central government and general government;
- Publish monthly budgetary central government statistics within one month after the end of the reference period, quarterly central government debt data within one quarter after the end of the reference period, and improve the timeliness of the annual general government data to within two quarters after the end of the reference period to meet the SDDS requirements;
- Increase automation in the compilation of GFS;
- Develop preliminary estimates of general government data and, once this has been instituted for a few years, use revision studies to inform statistical practices and make the results public;
- Improve the quality of public sector GFS, ensuring especially the correct sectorization and consolidation, and start publishing overall public sector data
- Present the available fiscal data using the new analytical framework and give advance notice of the changes in methodology to users.

Monetary statistics

Short-term

- In revising the BOM Act, stipulate among the BOM's functions its responsibility for the collection, compilation, and dissemination of monetary and other financial statistics;
- Develop a plan for the implementation of the recommendations of the *MFSM*, including the compilation of sectoral balance sheets, the Central Bank Survey, the Other Depository Corporations Survey, and the Depository Corporations Survey; the expansion of the scope to include the accounts of the Post Office Savings Bank, offshore banks, and the non-bank deposit taking institutions; and the full application of the *MFSM* recommendations regarding sectorization, classification, valuation, and basis for recording;
- Consider the feasibility of changing the dissemination policy to permit posting data on the Internet as soon as available, prior to the publication of the hard copy *MSB*, in order to meet the timeliness requirements of the SDDS.

Medium-term

- Implement the data compilation and presentation framework recommended in the *MFSM*.

Balance of payments statistics

Short-term

- In revising the BOM Act, stipulate clearly the BOM's authority and responsibility with regard to the compilation and dissemination of BOP statistics;
- Develop a plan for the establishment of a survey of enterprises, banks and other financial institutions, both onshore and offshore, to obtain data on all financial claims on, and liabilities to nonresidents (both for transactions, in cash and in kind, and stock positions), to cover all components of the Financial Account and income, including direct investment income from reinvested earnings;
- Beginning with data for the first quarter of 2001, publish quarterly balance of payments on a quarterly basis, with a timeliness of six months; adopt the BPM5 classification for other investment transactions; publish more detailed data on the components of services; remove the effects of changes in prices and exchange rates from the transactions data on reserve assets; and amend the presentation of the national BOP statistics table;
- Beginning with data for the third quarter of 2001, expand the coverage of the balance of payments through including/expanding data on repairs on goods, services transactions of banks, interest income of banks, compensation of employees, workers' remittances transacted through banks, and migrants' transfers in kind, and disseminate these additional data as relevant. Adjust the data on insurance services and current transfers to take account of insurance claims and premiums; and disseminate data on portfolio investment assets and liabilities, disaggregated by debt and equity securities.

Medium-term

- Implement the survey of enterprises, banks and other financial institutions;
- Explore possible data sources for current and capital transfers in kind received by non-governmental organizations;
- Improve the timeliness of the quarterly balance of payments data to three months in line with the timeliness requirement of the SDDS;
- Develop an International Investment Position (IIP) statement in line with the SDDS requirements for coverage, periodicity, and timeliness;
- Develop a maturity breakdown of external debt consistent with the maturity requirements of the *BPM5* and the forthcoming *External Debt Statistics: A Guide for Compilers and Users*.

INTERNATIONAL MONETARY FUND

MAURITIUS

Report on the Observance of Standards and Codes (ROSC)–Data Module

Response by the Authorities

April 8, 2002

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I. GENERAL COMMENTS

The Government of Mauritius appreciates the initiatives of the IMF for the production of the data Report on the Observance of Standards and Codes (ROSC). The Report on Mauritius gives a fair view of the practices and standards for the compilation, production and dissemination of statistics in the country. The Report has helped the Mauritian Authorities to take stock of their strengths and weaknesses in this area. The initiative of the Fund in the preparation of a uniform framework for assessing data quality and the statistical system is also highly appreciated. Government intends to use the Data Quality Assessment Framework (DQAF), which is based on internationally agreed best practices for official statistics as a reference to improve the quality of its statistical products.

Following the ROSC document, some measures have already been taken to address the weaknesses. Additional measures are envisaged to be taken in the short and medium term to improve statistical production and dissemination practices in order to bring them in line with international standards. Some of the measures that have been taken or planned since the receipt of the ROSC as well as some specific comments are given below.

II. SPECIFIC COMMENTS

2.1 *GFS*

Government has taken measures to reduce duplication by the Ministry of Finance and the Central Statistics Office in regard to collection of data from extra budgetary units. Recently the number of staff positions for production and analysis of GFS data has also been increased at the Ministry. Furthermore data produced on GFS basis are cross-checked with other methods of deriving budgetary aggregates and are thoroughly scrutinized before publication in the budget documents. A follow-up IMF Technical Assistance Mission on GFS took place in January 2002

2.2 *The IMF Users' Survey*

The suggestions made by users in the survey conducted on behalf of the IMF in June 2001, given as appendix to the report, have been noted and will be taken into consideration in data collection strategies.

2.3 *Setting up a Committee on "International Commitments with emphasis on adherence to IMF standards"*

It is worth mentioning that the new Statistics Act 2000 contains several clauses to consolidate the statistical system and to ensure the quality and integrity of official statistics. Following the promulgation of the Act, a Statistics Advisory Council (SAC) was set up. Among other things, it has the function of advising the Minister of Economic Development, Financial Services and Corporate Affairs on the coordination and harmonisation of statistical activities in the country, on the perceived integrity of, and public confidence and trust in statistics and

also on the maintenance of independence and professional standard of statistical information produced.

To ensure that Mauritius graduates smoothly from the GDDS to the SDDS, the Council took the decision to set up a Committee on “International Commitments with emphasis on adherence to IMF standards”. The committee will identify constraints and recommend reforms in the legal and administrative framework that are needed to enable the compiling agencies to fulfill the data requirements. A time frame for graduation from the GDDS to the SDDS will also be established.

2.4 *Accessibility*

The following actions have been taken to improve data accessibility:

- a) The “Guide to the CSO” has been posted on the CSO website pending its availability in hard copy. The aim is to inform the public of the activities and statistical products available at the CSO. A description of the activities undertaken by the different units and information on all publications together with contact persons’ name and phone number is also given.
- b) The Statistics Advisory Council has set up a Committee on “Public Understanding of Statistics”. The aim is to increase accessibility of official statistics to a wider audience and to promote public understanding of statistical information.
- c) As from October 2000, the name and phone number of contact persons are given in all CSO publications
- d) The Economic and Social Indicators as well the 2000 Housing and Population Census reports are already on the CSO’s website. All other publications will be posted in due course.
- e) Following the recommendation of the Fund, it has been decided to attach a “User Survey Questionnaire” in selected issues of the Economic and Social Indicators, starting with one on National Accounts to be released in March 2002.

2.5 *Quality Assurance*

Quality monitoring is implicit in CSO work processes although special quality assurance teams are not in place. The IMF has been approached with a proposal for providing CSO with examples of quality indicators, processing improvement studies, and assisting in implementation.

2.6 National Accounts

2.6.1 Maintenance of the Central Business Register

With a view to improving and expanding the coverage of the Central Business Register, work is underway on the development of a data base management system to maintain the register and to allow quick search and retrieval of information on business units.

2.6.2 Conduct of a cost of production survey in the agricultural sector

It is planned to conduct a cost of production survey during 2002- 2003, in the agricultural sector to update the input structure of activities related to the cultivation of sugarcane, the major food crops, fruits and flowers, as well as fishing.

2.6.3 Development of Quarterly National Accounts

Development of Quarterly National Accounts is underway. The availability of data on expenses incurred by the central budgetary government on an accrual basis would greatly help in the preparation of quarterly accounts for the general government sector. A paper describing the methodology for the compilation of QNA together with pilot estimates of quarterly value added by industry groups for the years 1999 and 2000 has been circulated among the main data users and suppliers. The paper is designed to inform them of developments and to collect their views and comments in order to ensure the success of this data-intensive project.

2.6.4 Data on the Freeport trade

As from January 2002, data on trade activities in the Freeport will be integrated with those of the Customs' Department. This procedure will help to improve consistency between balance of payments and national account statistics.

2.6.5 Estimates at constant prices

Regarding the estimates at constant prices and the use of the single indicator method instead of double deflation, this procedure requires the availability of an import price index as the majority of inputs are imported. Currently, only the aggregate unit value of imports is available. The use of import unit values to deflate imported intermediate consumption yields incorrect and unrealistic volume measures. Preparatory work on the construction of an import price index has been started.

2.6.6 Preparation of financial accounts and balance sheets

The CSO is currently working on a framework for the development of financial statistics that will include the preparation of financial accounts and balance sheets for all sectors of the economy in the context of the national accounts. The CSO has requested technical assistance

from the IMF in this area and the mission in monetary and financial statistics that visited Port-Louis in March/April 2002 also provided advice on the procedures and surveys that are needed for the non-bank financial sector to meet the data requirements of the Bank of Mauritius and the Financial Services Division of the Ministry of Economic Development, Financial Services and Corporate Affairs. In addition, the survey considered in the fourth paragraph of section 2.9 may generate financial data.

2.7 Consumer Price Index (CPI)

Recommendations regarding dissemination have already been implemented. The monthly CPI is now available on the website five working days after the reference month. Footnotes have been added to the CPI table in the Government Gazette and the CSO is listed as the source.

The recommendations regarding compilation techniques will be implemented at the next revision of the CPI in August 2002.

2.8 Monetary Statistics

Steps will be taken to ensure that it is clearly specified in the new Bank of Mauritius Act that the Bank is responsible for the collection, compilation and dissemination of monetary statistics from domestic and offshore banks as well as from non-bank depository financial institutions.

On the issue of integrity, the Bank of Mauritius informs users of monetary statistics about revisions to data by way of footnotes to the tables that appear in the Monthly Statistical Bulletin. The Bank will ensure that the users of monetary statistics are kept informed of any major changes in the methodology, as appropriate, in the compilation of such statistics.

Currently, monetary statistics are compiled on the basis of concepts and definitions of the IMF's draft Guide to Money and Banking Statistics in International Financial Statistics. However, following the publication by the IMF of the new Monetary and Financial Statistics Manual, the Bank has made a request for Technical Assistance from the IMF for the implementation of the recommendations of the new manual. A Working Group has also been set up in the Research Department of the Bank and has been assigned the responsibility of providing a comprehensive plan outlining the procedures that would be followed and the deadlines set for the implementation of all the recommendations made in the context of the ROSC report.

Currently, monetary statistics are made available to the public on the 20th of each month with the publication of the Monthly Statistical Bulletin. The Bank will follow the recommendation made for the dissemination of data on the Bank's website as and when available in order to meet the timeliness requirements of the SDDS.

There is a Standing Committee, chaired by the Director-Research and comprising representatives of all the departments of the Bank and representatives of commercial banks,

which meets on a quarterly basis to review the quality of all monetary, balance of payments and financial data submitted to the Bank.

2.9 Balance of Payments

For the Balance of Payments, efforts will continue to be made with a view to improving the quality, periodicity and timeliness of the statistical data. It is also envisaged that the new Bank of Mauritius Act will strengthen the legal underpinnings and make more explicit the Bank's responsibility for the collection and compilation of balance of payments statistics.

Efforts are already under way to provide more detailed data on the balance of payments. The Bank will aim to achieve greater disaggregation, in line with the methodology set out in the Fifth Edition of the IMF's Balance of Payments Manual (BPM5), particularly for items in the services and financial accounts. The Bank will also consider releasing on its website the more detailed classification of the balance of payments.

Efforts are also under way for adjusting data on reserve assets in order to remove changes in prices and exchange rates.

In the medium-term, the Bank will, in co-operation with the Central Statistics Office and the Financial Services Commission (FSC), explore the possibility of carrying out a survey of enterprises, banks and other financial institutions, both onshore and offshore, with a view to assessing the financial claims on and liabilities to non-residents. The expertise of the CSO in conducting surveys will be drawn upon.

INTERNATIONAL MONETARY FUND

MAURITIUS

Detailed Assessment Using the Data Quality Assessment Framework (DQAF)

Prepared by the Statistics Department

Approved by Carol S. Carson and Abdoulaye Bio-Tchané

April 8, 2002

This document contains a detailed assessment by dataset of the elements and indicators that underlie the data quality dimensions discussed in Mauritius's Report on the Observance of Standards and Codes (ROSC)—Data Module. It also includes as appendices the DQAF generic framework and the results of the users' survey.

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ACRONYMS

<i>1968 SNA</i>	<i>System of National Accounts 1968</i>
<i>1993 SNA</i>	<i>System of National Accounts 1993</i>
BOM	Bank of Mauritius
<i>BOPSY</i>	<i>Balance of Payments Statistics Yearbook</i>
<i>BPM5</i>	<i>Balance of Payments Manual, fifth edition</i>
CBR	Central Business Register
c.i.f.	Cost, insurance and freight
CMHS	Continuous Multi-Purpose Household Survey
COFOG	Classifications of the Functions of Government
COICOP	Classification of Individual Consumption by Purpose
COMESA	Common Market for Eastern and Southern Africa
CPC	Central Product Classification
CPI	Consumer Price Index
CSO	Central Statistics Office
DBM	Development Bank of Mauritius
DCS	Depository Corporations Survey
DQAF	Data Quality Assessment Framework
DSBB	Dissemination Standards Bulletin Board
EBU	Extra-budgetary unit
EPZ	Export Processing Zone
FAO	Food and Agriculture Organization of the United Nations
f.o.b.	Free on board
GDDS	General Data Dissemination System
GDP	Gross Domestic Product
GFS	Government Finance Statistics
<i>GFSM 1986</i>	<i>A Manual on Government Finance Statistics, 1986</i>
<i>GFSM 2001</i>	<i>Government Finance Statistics Manual, 2001</i>
HBS	Household Budget Survey
IIP	International Investment Position
ISIC	International Standard Industrial Classification of All Economic
MACSS	Mauritius Automated Clearing and Settlement System
MDLS	Mauritius Development Loan Stocks
MEDFSCA	Ministry of Economic Development, Financial Services and Corporate Affairs
<i>MFSM</i>	<i>Monetary and Financial Statistics Manual</i>
MOBAA	Mauritius Offshore Business Activities Authority
MOF	Ministry of Finance
<i>MSB</i>	<i>Monthly Statistical Bulletin</i>
NPF	National Pension Fund
NPISHs	Non-profit institutions serving households
OECD	Organisation for Economic Co-operation and Development
POSB	Post Office Savings Bank
QNA	Quarterly National Accounts
ROSC	Report on the Observance of Standards and Codes

SAC	Statistics Advisory Council
SADC	South African Development Community
SDDS	Special Data Dissemination Standard
SDRs	Special Drawing Rights
SEM	Stock Exchange of Mauritius
SITC	Standard International Trade Classification
STA	Statistics Department, IMF

DETAILED ASSESSMENT USING THE DATA QUALITY ASSESSMENT FRAMEWORK (DQAF)

The following detailed information on indicators of statistical practices in the areas of the national accounts, price, government finance, money and banking, and balance of payments statistics was gathered from publicly available documents and information provided by the Mauritian's officials. This information, which is organized along the lines of the generic DQAF (see Appendix V), was used to prepare the summary assessment of data quality elements, based on a four-part scale of observance, shown in Mauritius's Report on the Observance on the Standards and Codes (ROSC)—Data Module.

I. NATIONAL ACCOUNTS

0. Prerequisites of quality

0.1 Legal and institutional environment

0.1.1 The responsibility for collecting, processing, and disseminating statistics is clearly specified.

Although national accounts statistics are not mentioned specifically in the Statistics Act 2000,¹ the first schedule to that Act makes it sufficiently clear that the Central Statistics Office (CSO) is the responsible agency for compiling the national accounts. According to Section 5 of the Statistics Act 2000, the Director of the CSO has the sole responsibility for deciding the extent, form, and timing of publication and dissemination of any statistics produced by the CSO.

0.1.2 Data sharing and coordination among data producing agencies are adequate

The CSO has set up good working relations with agencies that produce source data for the national accounts. In several Ministries, the CSO has placed staff for collecting data and submitting these to CSO headquarters in aggregated format. Some duplication of collection efforts takes place, for instance concerning information on the operations of local government, extra-budgetary units and public enterprises between the CSO and the Ministry of Finance.

It should be noted that Section 7 of the Statistics Act 2000 obliges every ministry, department and statutory body to provide the CSO with data at the times, in the manner, and for the periods prescribed by the Director of the CSO.

¹ Act No. 38 of 2000, signed by the President of the Republic on November 30, 2000 and published in the *Government Gazette of Mauritius* No. 127 of December 2, 2000.

The coordination of statistical activities in all ministries and government departments is one of the duties of the Director of the CSO (Section 5 of the Statistics Act 2000). In addition, the Statistics Advisory Council advises the Minister responsible for statistical matters on coordination of statistical activities in Mauritius.

0.1.3 Respondents' data are to be kept confidential and used for statistical purposes only

With a few exceptions, the CSO is obliged to respect the confidentiality of individual data. Before entering on duty, all CSO staff have to sign a declaration of secrecy. Statistical work is mostly carried out on spreadsheets that have no external electronic links. Data received and transmitted to the CSO electronically or processed centrally on government computers (for instance, foreign trade data processed by the Central Information Systems Division) are protected by firewalls. Individual data are stored under lock and all computers are password protected.

Sections 17 through 22 of the Statistics Act 2000 deal with confidentiality. Section 17 rules that except for the purposes of a prosecution under the Act, no part of individual returns, and no document that would enable the disclosure of particulars of any person, undertaking, or business, shall be published, admitted in evidence, disclosed to any ministry or government department, or shown to any person not employed in the execution of the Act. However, the possible identification of individual data merely by reason of the fact that an undertaking is the only one within its particular sphere of activities does not prevent publication. Still, identification of the costs of production, the capital employed, or profits made should never be possible with respect to any undertaking. The CSO may also disclose (i) information available to the public under any public document, (ii) basic enterprise information such as name, address, industrial classification, and number of employees, (iii) details of external trade, (iv) information relating to a local authority or other statutory body. With approval of the Minister, the CSO may further disclose individual records for research and statistical purposes, provided that all identifying information has been removed and the persons involved in the research or statistical project has made a declaration of secrecy.

Section 20 of the Statistics Act 2000 stipulates that the CSO should take steps to ensure the security and confidentiality of statistical information in whatever form it is stored. Furthermore, all individual census and surveys forms containing names and addresses should be destroyed after the data have been processed and validated, but not later than five years after the completion of the census or survey (Section 21).

Finally, Section 22 of the Statistics Act 2000 prescribes the declaration of secrecy required from every person employed in the execution of the Act. The wording of this declaration is set out in the third schedule given by the Act.

Further protection is provided under the Official Secrets Act 1972, Article 3.2.f.

0.1.4 Statistical reporting is ensured through legal mandate and/or measures implemented to encourage voluntary response

Section 13 of the Statistics Act 2000 gives the CSO the power to obtain particulars in respect of any statistical collection carried out in accordance with the Act. The CSO also has access to public or other records if approval of the Minister has been obtained. However, no person is required to supply information on technical processes or trade secrets. Refusal or neglect to provide information, or making untrue statements are offences and subject to the payment of a fine and imprisonment. The CSO does not have the right to inspect books and records, premises, and stocks of businesses or persons in case of non-compliance.

The CSO implements various measures to encourage voluntary response. For instance, folders explaining the purposes of major surveys are distributed in the English and French languages and often such cases give also rise to a presentation by the Minister on television. Some questionnaires contain a short introduction on the objectives of the survey. The CSO may also make the main results of the survey available to respondents.

0.2 Resources

0.2.1 Staff, financial, and computing resources are commensurate with institutional programs

The number of staff employed by the CSO is adequate for their present tasks, but any new statistics (such as possibly on financial services) or further improvement (for instance the development of quarterly national accounts) will require a strengthening of this number. The training and experience of staff is satisfactory. Overall, the conditions of employment have been sufficient to retain experienced staff.

The CSO has been allocated sufficient financial resources to compile its regular statistics. Adequate hardware is available, but the acquisition of programs to support the compilation of the national accounts will require additional resources.

0.2.2 Measures to ensure efficient use of resources are implemented

The CSO does not estimate the costs of producing individual statistics. Neither does it collect information on how much the burden laid on respondents is. A statistical program that addresses issues concerning the efficient use of available resources does not exist.

However, the cost of large censuses and surveys, such as the Establishment and Population Censuses or the Household Budget Survey, is carefully monitored.

0.3 Quality awareness

0.3.1 Processes are in place to focus on quality, to monitor the quality of the collection, processing, and dissemination of statistics, to acknowledge and deal with tradeoffs within quality, and to guide planning for existing and emerging needs.

Quality monitoring is largely implicit in the CSO's work processes; a separate plan for improving quality as such does not exist. Since joining the General Data Dissemination System, the CSO has undertaken major efforts to improve the quality its statistics.

The setting up of statistical priorities, formulation of work programs, and the discussion of various aspects of quality are expected to result from the activities of the newly created Statistics Advisory Council. This Council has, among other things, the function of advising the Minister on:

- the improvement, extension, coordination, and harmonization of statistical activities in Mauritius
- the actual and perceived integrity of, and public confidence and trust in, Mauritius's statistics, and,
- the maintenance of independence, accuracy, relevance, integrity, timeliness, and professional standard of statistical information produced in Mauritius.

Special quality assurance teams for monitoring quality indicators, conducting periodic reviews, and conducting process improvement studies do not exist. The CSO is not a large organization, and management itself performs many of these quality assurance tasks.

1. Integrity

1.1 Professionalism

1.1.1 Statistics are compiled on an impartial basis

The CSO compiles the national accounts statistics on an impartial basis. It has not experienced pressure from outside the CSO to change the estimates during, at least, the last ten years.

According to the Statistics Act 2000, the Director of the CSO shall ensure the independence of the statistical information produced by that agency. The Act also states that the Director has the sole responsibility for deciding the procedure and method to be employed in the provision, as well as the extent, form, and timing of publication and dissemination of any statistics produced by the CSO.

1.1.2 Choices of sources and statistical techniques are informed solely by statistical considerations

National accounts compilers are free to choose the data sources and statistical techniques they think fit. However, the CSO is not free to collect any mandatory statistics until regulations have been made by the Minister prescribing the particulars and information to be furnished for the statistics that are to be collected.

1.1.3 The appropriate statistical entity is entitled to comment on erroneous interpretation and misuse of statistics

In Mauritius, it is not deemed appropriate for the Director of the CSO to comment on erroneous interpretation or the misuse of statistics. In the future, the Statistics Advisory Council might do so, as Section 24 of the Statistics Act 2000 allows the Council to issue public statements on any matter concerning its functions, after consultation with the agency involved.

1.2 Transparency

1.2.1 The terms and conditions under which statistics are collected, processed, and disseminated are available to the public

The Statistics Act 2000 defines the terms and conditions under which the CSO produces and disseminates data. The Statistics Act is, among other things, posted on the CSO's Internet page.²

1.2.2 Internal governmental access to statistics prior to their release is publicly identified

The parent ministry has access to the data under embargo as soon as they are available, pending release in final format. The CSO might provide ministries, under embargo and for internal use, with ad-hoc estimates of developments that are especially important for the ministry in question. The provision of such ad-hoc estimates to government units is not made public.

Otherwise, the CSO releases its data simultaneously to all interested parties in both hard copy and on the internet.

² The CSO's website is <http://statsmauritius.gov.mu>.

1.2.3 Products of statistical agencies/units are clearly identified as such

Products of the CSO are clearly identified as such, even though various publications also indicate the name of the parent ministry.³

1.2.4 Advance notice is given of major changes in methodology, source data, and statistical techniques

Advance notice of major changes in methodology is given in publications, but not yet on the CSO Internet web page.

1.3 Ethical standards

1.3.1 Guidelines for staff behavior are clear and publicized

Ethical rules for staff are laid down in the Code of Ethics for Public Officers and the Official Secrets Act; both of which are published. The Statistics Act 2000 contains further provisions concerning the faithful and honest fulfillment of duties of staff and the limitations on disclosure of information that comes to their knowledge by reason of employment.

2. Methodological soundness

2.1 Concepts and definitions

2.1.1 The overall structure in terms of concepts and definitions follows international standards, guidelines, or agreed practices

Since the April 16, 2001 issue of the *Economic and Social Indicators*, Mauritius's national accounts are based on the concepts and definitions recommended by the 1993 SNA.

2.2 Scope

2.2.1 The scope is broadly consistent with international standards, guidelines, or agreed practices.

The national accounts cover the full economic territory of the country, that is, the island of Mauritius and its dependencies, which include the islands of Rodrigues, Agaloga, and St. Brandon.

The delimitation of the constituent units of the economy is in accordance with the 1993 SNA. For instance, included as part of the economy are territorial enclaves in the rest of the world,

³ The Ministry of Economic Development, Financial Services, and Corporate Affairs.

enterprises belonging to the Economic Processing Zone (EPZ), units active in the Freeport, as well as off-shore. This is also true for producers active in the informal sector, such as street-vendors and small business contractors.

The production boundary is mostly in accordance with the *1993 SNA*. Backyard gardening for own consumption is included in household production (and household final consumption expenditure), but with respect to own-account production of other goods, such as dresses made for family members, no estimates are made. Own-account research and development is not seen as a separate productive activity. The magnitude of such activity is thought to be very limited in Mauritius. The output of goods for own-account fixed capital formation is included in the estimates, but not the production of entertainment, literary or artistic originals that probably are negligible. As in most countries, outright illegal activities, such as drug trafficking is not included.

The assets boundary is broadly in accordance with the *1993 SNA*, although there are a number of deviations. Included among tangible assets are defense related assets that could be used for civilian purposes.⁴ However, valuables are not distinguished from consumption assets and historical monuments are not included in the asset boundary. Agricultural work-in-progress is only recognized as an asset in the case of sugar cane. Among intangible assets, the Mauritius's national accounts do not record any data on entertainment, literary or artistic originals, patented entities, or leases and other transferable contracts.⁵ However, purchased systems applications, computer software and databases are included.

The national accounts cover transactions up to and including the balancing item Lending (+)/ Borrowing (-), that is, all transaction categories except financial transactions. No data are estimated concerning institutional balance sheets or 'other events,' such as revaluations and other changes in the volume of assets.

2.3 Classification/sectorization

2.3.1 Classification/ sectorization systems used are broadly consistent with international standards, guidelines, or agreed practices.

The *1993 SNA* is followed to classify institutional units and transactions. Activities are classified according to the National Standard Industrial Classification (NSIC), which is equivalent to the International Standard Classification of All Economic Activities (ISIC), Rev. 3 recommended by the United Nations, extended by one additional digit for national purposes. Products are classified by the Central Product Classification. The Classification of individual consumption by purpose (COICOP) is used to classify household consumption

⁴ Such as airfields, docks, roads, hospitals, and other buildings or structures.

⁵ Such as purchased goodwill.

and the Classification of the Functions of the Government (COFOG) for functions of government.

2.4 Basis for recording

2.4.1 Market prices are used to value flows and stocks

The valuation rules used for recording flows and stocks are in accordance with the *1993 SNA*. Market output is valued at basic prices. Output for own use is valued at equivalent market prices. Purchases are valued at purchaser's values, that is, including trade and transport margins, net taxes on products and non-deductible value added tax (VAT). If the VAT is deductible, it is not included. Corrections are made when transfer prices are detected in external transactions. Total imports and exports are recorded on an f.o.b. basis; the estimate on insurance and freight by commodities for imports is only a crude estimate, however, made by the Bank of Mauritius (BOM). Goods transactions in foreign currency are converted to rupees using an exchange rate that remains fixed for one week.

2.4.2 Recording is done on an accrual basis

In principle, all transactions are recorded on an accrual basis in accordance with the recommendations of the *1993 SNA*. The basic data for general government, which are on a cash basis, are only adjusted for accrual basis with respect to compensation of employees. All transactions in the Rest of the World account (for which the balance of payments compiled by the Bank of Mauritius is the main source), are recorded on a cash basis except for the transactions related to imports and exports of goods.

2.4.3 Grossing/netting procedures are broadly consistent with international standards, guidelines, or agreed practices

The grossing/netting procedures are in accordance with the 1993 SNA.

3. Accuracy and reliability

3.1 Source data

3.1.1 Source data are collected from comprehensive data collection programs that take into account country-specific conditions

The CSO maintains a Central Business Register (CBR) that has been constructed on the basis of administrative records on licenses and registrations from district councils, municipalities, the Ministry of Education, the National Transport Authority, the Register of Companies, the Medical Council, and the Bar Council. Licenses are recorded when paid, and the register therefore contains a considerable number of small dormant units or units that have ceased to exist. Corrections are possible when the decennial population census is held.

Agriculture, fishing, and forestry establishments are not presently included in the CBR as their production is estimated on a functional basis. Sources are the Chamber of Agriculture, the Mauritius Meat Authority, and other parastatals. The collection program is annual, except for own-account production on which data is collected every five years by means of household budget surveys. With a few exceptions, there is a clear lack of recent information on the input structure for these activities.

The collection program for most market activities comprises a five-yearly census and a system of annual surveys. The last **Census of Economic Activities (CEA)** was conducted in 1997. The Census involved questionnaires sent to all establishments with 10 or more persons employed, broken into 158 activity groups. Among the units with nine or less persons employed, a distinction was made between enterprises operating from a fixed location and itinerant units. The latter category comprises taxi operators, hawkers, street vendors, small building contractors, and the like. The Census sampled the small establishments operating from a fixed location from a list arranged by activity, district, and locality. For activity groups with less than ten establishments, all units were drawn. This results in different sample ratios, as shown in the following table.

Activity group	Population size (number of establishments)	Sampling fraction (number of establishments, in % of total)
Total	23,993	8.6
Manufacturing	2,600	21.2
Wholesale/retail trade, repair of motor vehicles and household goods	14,973	4.5
Hotels and restaurants	2,433	8.9
Transport, storage and communication	183	27.3
Financial intermediation	72	34.7
Real estate, renting, and business activities	710	24.1
Education	993	11.0
Medical, dental, and health services	630	12.9
Other community, social, and personal service activities	1,399	13.2

The sample of itinerant units consisted of 50 building contractors, 145 transport operators, and 500 street vendors out of a total of 21,948 itinerant units.

The Census collected data on, among other things, number of persons engaged, labor cost, main materials consumed, and output. From these, technical coefficients could be computed that are supposed to remain fixed for small units during the next five years.

The main basis for the **annual estimates** of the production of market units is the Census of Industrial Production, which is a sample survey rather than a census sent out in September. This survey asks questions on sales, change in inventories, intermediate consumption and wages. It is preceded by a simplified questionnaire, sent out in January to a smaller sample of large enterprises. The simplified questionnaire asks only for the quantity of goods produced during the last year and their sales value.

The survey program is dependent on the activity described. For instance, for the construction industry building permits rather than questionnaires to establishments are the main source. Trade margins are largely estimated by comparing import or producer prices with purchasers' prices, even though large establishments also receive the annual questionnaires.

For government agencies, detailed annual accounting data are received from the Accountant-General in addition to the annual questionnaires.

Labor market indicators supplement production data. In March of each year, the Survey of Employment and Earnings collects information for a particular day and earnings for the last pay period. This survey covers about 2,400 large establishments representing 67 percent of employment. The Survey of Employment, Earnings and Hours of Work is carried out among about 500 establishments employing 10 or more persons in September each year. All industries are covered by this survey; a stratification is made according to industry and size. A more frequent source is the Continuous Multi-Purpose Household Survey (CMHS) (discussed two paragraphs below).

In the framework of the development of **quarterly accounts**, monthly or quarterly indicators for output are being collected. These include foreign trade data (in particular for EPZ units), VAT data, and new questionnaires (for instance, regarding the financial sector).

The survey program for **household operations** covers a decennial population/housing census, a five yearly household budget survey (HBS) and the CMHS. The two surveys are well-designed and take socio-economic groups, the urban/rural distinction, expenditure level, size, and ethnic group into account. Also from a scientific point of view, the samples are sound. Most details are collected by means of the HBS: they include, data on purchases of consumption goods, purchases of durable goods and production for own account. The details on consumption in the CMHS concern a few items that are recognizable by households, such as electricity and water bills. For the purposes of the national accounts, more reliable data on such expenditures are received from the enterprises concerned. A retail survey does not exist and may well be of less importance in the specific situation of Mauritius.

For **external transactions**, the CSO foreign trade statistics and the balance of payments compiled by the BOM are used.

The **price statistics** program includes a monthly Consumer Price Index (CPI) and Producer Price Index (PPI), external trade unit value indices (also for EPZ separately), a construction price index, and an annual wage rate index.

3.1.2 Source data reasonably approximate the definitions, scope, classifications, valuation, and time of recording required

The source data usually approximate the definitions, scope, valuation and classifications required in the national accounts, but several sources are subject to problems concerning the timing of recording.

The cash recording in the source for most government operations and for data derived from the balance of payments cause the time allocation problems indicated above. The annual enterprise surveys rely on enterprise accounts that partially do not reflect calendar years and also cannot be adjusted to calendar years by the CSO. Labor market data mostly refer to a particular day or period within the year, and thus may not be representative for the full year. In addition, the five-yearly HBS covers the period July-June rather than a calendar year, although the CSO might decide to change this for future HBSs.

Underreporting of output is a problem with data received from enterprises.

External trade data from the EPZs requires the special attention of the CSO because there is no fiscal interest. Changes in stocks are reported at values employed by the enterprises themselves, and the CSO may not have an insight as to what valuation systems are being followed.

3.1.3 Source data are timely

Most source data are available on a sufficient timely basis. However, foreign trade data suffer from considerable and persistent delays. This is particularly true for the annual import and export data. It is hoped that the imminent in-house treatment of source data from customs will have a positive effect on the timeliness of these statistics.

3.2 Statistical techniques⁶

3.2.1 Data compilation employs sound statistical techniques⁷

⁶ This section concerns the source data for the annual national accounts as defined in the IMF GDDS (published 12-14 months after the end of the year).

⁷ The level in the national accounts publications is markedly more aggregate, namely the first digit ISIC levels with some subdivisions, leading to 20 groups of activity. However, the Digests of Manufacturing and Agriculture contain details at 3-digit levels (sometimes even finer) that are fully consistent with the national accounts publications.

Production approach

Output estimates are compiled at a sufficient industrial detail, namely, at the five digit ISIC Rev. 3 level.

In general, in compiling GDP by activity, the ratios used are not older than five years. The technical coefficients of large enterprises are refreshed every year, and only those of the small enterprises are determined on the basis of the five-yearly CEA.

However, for enterprises not covered by the CEA (agriculture, fishing, and forestry), the technical ratios may have been presumed unchanged for more than twenty years.

Concerning the techniques used to address specific issues of GDP compilation, the following can be noted:

- **Owner-occupied dwellings:** output is in principle valued as the estimated rentals that tenants would pay for similar accommodation. The estimation is founded on (i) a volume component which consists of the stock of buildings according to the housing census modified by volume changes derived from building licenses and (ii) own assessment of rental prices by households from the five-yearly HBS, extrapolated by the rent component of the CPI. The delicate part of this methodology possibly is the own assessment of households, as households tend to overrate the desirability of the dwelling they own.
- **Work in progress:** Only growing sugar cane is treated as work-in-progress.
- **Inventory valuation adjustment:** In the estimates of output, sales are adjusted for changes in inventories. These changes should have the proper valuation and in particular exclude any holding gains or losses. However, the CSO does not correct the source data for these gains/losses.

A similar problem exists concerning inventories of supplies to be used as intermediate consumption.

- **Consumption of fixed capital:** The CSO does not publish data on consumption of fixed capital because the perpetual inventory method cannot be used for all industries (the time series are too short). Consumption of fixed capital is exclusively computed for government as a component of the value of government output.
- **Cash versus accrual:** some cash data are converted to accrual by allocating them to the period to which they relate, in particular for the data on compensation of employees.

The following should be noted regarding the estimates at constant prices:

- The single indicator method is used for compiling volume measures of GDP according to the production approach, except for some industries (notably sugar). The single indicator method is based on the presumption that the real value added changes in the same measure as the volume of output.⁸ The 1993 SNA recommends the double deflation method.
- *Volume measures of taxes/subsidies on products: These are correctly estimated by extrapolating the base-year-tax/subsidy using a volume extrapolator of transactions subject to a specific tax/subsidy.*
- Output volume of trade margins: are estimated by applying the base year margin rates to the corresponding volume of sales.
- Measurement of volume change: GDP volume change is measured using annual chain indices.

Expenditure approach

The GDP estimates by expenditure components are not all derived independently as household final consumption expenditure is determined as a residual. Although in principle the five-yearly HBS generates an independent estimate, the unadjusted level from the grossed-up source data is considerably lower than the one resulting from the commodity flow approach (some fifty percent, about half of which is due to conceptual differences).

Concerning the detail at which GDP estimates are compiled, the following can be said:

- Household final consumption expenditure is compiled at the most detailed level of the functional classification given in the 1968 SNA.
- Household final consumption expenditure and final consumption expenditure by non-profit institutions serving households (NPISHs) are not published separately in view of the feeble coverage of the NPISHs.⁹
- Government final consumption expenditure is published at the one-digit level of the COFOG, but compiled at a finer level of detail.
- Gross fixed capital formation is compiled by acquiring activities and by six types of assets (but it is not published cross-classified by activities/type of assets).

⁸ The CSO hesitates applying the double deflation method in view of the weaknesses in the import unit values (many imports enter intermediate consumption).

⁹ The larger NPISHs are known from the administration kept by the Registrar of Associations.

- Changes in inventories are compiled for a few activities and types of inventories (not published in this breakdown).

The source used to estimate fixed capital formation in the national accounts depends on the type of asset and the sector involved. For instance, capital formation in residential buildings is estimated from licenses given out, non-residential buildings from surveys, investment in machinery from imports and domestic production, and purchases of vehicles from the National Transport Authority.

In compiling GDP by expenditure components, the degree of reliance on fixed ratios derived from benchmarks or other sources that are more than five years old is nil.

As regards the techniques used to address specific issues of GDP compilation, the following observations are made:

- Government final expenditure is exclusive of incidental sales.
- Expenses of residents abroad are included in household final consumption expenditure (and vice versa).
- Expenditures on items that are considered stores of wealth (such as jewelry, works of art) are not included in the estimates of valuables, as the latter category is not distinguished from final consumption expenditure.

To compile volume measures of the expenditure components of GDP, dedicated price indices/deflators are used to deflate GDP components at least at the one-digit level of level of the corresponding classifications.

3.2.2 Other statistical procedures (e.g., data adjustments and transformations, and statistical analysis) employ sound statistical techniques

There is no sizeable part of the economy that is not covered by regular national accounts estimates. The main lacks in coverage concern the already mentioned the illegal activities and the smaller NPISHs. The activities of the production units without fixed location are included by extrapolating the results of the Census of Economic Activities by licenses and the average output per worker.

3.3 Assessment and validation

3.3.1 Source data—including censuses, sample surveys and administrative records—are routinely assessed, e.g., for coverage, sample error, response error, and non-sampling error; the results of the assessments are monitored and made available to guide planning.

Random post-enumeration checks are always made while conducting censuses or surveys; a large part of those take place in the field by survey supervisors.

For all surveys and censuses, information is available about sampling errors and non-response. However, this is not routinely published. Non-response by enterprises leads to imputation on the basis of other enterprises in the same economic activity. Households selected for the HBS but that do not wish to take part in the survey are replaced by selecting other households using the same scientific selection method.

In the early editing stages, data received from enterprises are analyzed by taking ratios of the various variables reported and by looking at the movement of the variables over time. If improbable values are found, the enterprise in question is contacted, either by telephone or by way of personal visits. Underreporting of output by enterprises is as far as possible adjusted by comparison of the reported data with foreign trade records, the tax administration, and data collected by the Registrar of Companies.

As the source data are usually consistent with national accounts requirements concerning definitions, classifications, and valuation, no major adjustments are required. Where the timing is not adequate (e.g., accounting years of enterprises) usually little can be done to come to better estimates. An exception is the adjustments to bring the cash data of compensation of employees paid by central government to an accrual basis. Deviating valuations are largely concentrated in the change of inventories, the solution here would be to collect more information on the way enterprises value their stocks.

The CSO always analyzes the source data in the context of revisions.

3.3.2 Main intermediate results are validated against other information where applicable

There are few opportunities to validate intermediate results against independent data sources and statistical frameworks.

3.3.3 Statistical discrepancies and other potential indicators of problems in statistical outputs are investigated and made available to guide users.

The discrepancy between GDP by production activities and GDP by expenditure components, which appears in household final consumption expenditure, is analyzed, but not made available to users.

The discrepancy can be attributed to various causes, including some of conceptual issues:

- The HBS does not include expenditure abroad;
- The HBS does not include NPISHs, as does the Mauritius national accounts category of private final consumption expenditure;
- The HBS underreports expenditure on cigarettes, alcoholic beverages, and expenditure in bars and restaurants;
- The HBS rental value is considered too low;

- Remaining differences are mainly located in the service categories.

3.4 Revisions

3.4.1 Studies and analyses of revisions are carried out routinely and used to inform statistical processes

Revised national accounts data are released according to a regular, well established, and transparent schedule. This is true both for the series of publications in which the estimates gradually become final as well as for the main revisions that take place every five year linked to the Census of Economic Activities. The five-year cycle also permits the incorporation of other improvements and changes in concepts such as updated classifications, the 1993 SNA recommendations, etc. The main revisions of the national accounts coincide with the rebasing of price indices.

Release and revision dates are coordinated with the arrival of major data sources and the timing of important official economic policy documents, in particular the government budget.

3.4.2 Revision studies and analyses are made public and used to guide data users

The CSO undertakes revision studies and makes its analysis available to the public.

4. Serviceability

4.1 Relevance¹⁰

4.1.1 Processes to monitor the relevance and practical utility of existing statistics in meeting users' needs are in place

The CSO assesses whether the national accounts statistics adequately respond to government needs. However, currently no explicit reviews are conducted to assess whether the program meets other user needs.¹¹ A user questionnaire will be attached to the next issue of the Economic and Social Indicators on national accounts for completion by users.

¹⁰ Relevance reflects the degree to which the statistical program addresses the issues of most concern to the users.

¹¹ In terms of the topics addressed, the accuracy and timeliness of information being produced.

4.2 Timeliness and periodicity

4.2.1 Periodicity follows dissemination standards

The national accounts are compiled for calendar years.

The CSO is developing quarterly national accounts; these are expected to be published after at most three years.

4.2.2 Timeliness follows dissemination standards

Preliminary estimates of the annual national accounts are published with a timeliness of three months, the provisional estimates with a timeliness of nine months, and the revised estimates appear 21 months after the reference year. This is in accordance with internationally accepted standards.

4.3 Consistency

4.3.1 Statistics are consistent or reconcilable over a reasonable period of time

Consistent time series data are available without break for a period of at least five years; the series compiled according to the recommendations of the *1968 SNA* are available at current prices for more than twenty years without breaks. The CSO adjusts back series to account for methodological developments and also, as far as possible, to avoid discontinuities arising from changes in data sources.

Outliers in the structural ratios are investigated, including the following:

- intermediate consumption to total output;
- value added to total output;
- saving to national income;
- gross fixed capital formation to GDP;
- household consumption to GDP;
- exports to GDP;
- imports to GDP.

4.3.2 Statistics are internally consistent (e.g., accounting identities observed)

The statistical discrepancy between GDP by production activities and GDP by expenditure components is not shown explicitly. The discrepancy, which only can be determined for the years a HBS is compiled, is around 10 percent.

The national accounts data are reconciled within the supply and use tables framework for the benchmark years, the latest of which is 1997. The CSO is considering compiling annual

supply and use tables, but is at present constrained by limited access to advanced computer facilities.

GDP estimates at current prices, volume measures and (implicit) deflators are consistent within the “value = volume × price” framework. The volumes are compiled as Laspeyres chains, and the implicit prices are Paasche chains.

The concepts and definitions for compiling quarterly GDP estimates are identical to those used to compile the annual estimates. Quarterly accounts are still in development. However, the first results show discrepancies between the sum of quarterly estimates and the annual estimate; it may be that the annual accounts will have to be adjusted for this difference because of the timing problems in the source statistics (see section 3.3.1 above).

4.3.3 Statistics are consistent or reconcilable with those obtained through other data sources and/or statistical frameworks

Total net lending/net borrowing (from national accounts) is not exactly the same as the current account balance plus the capital account balance (from balance of payments). This is due to problems in the recording of Freeport operations in the balance of payments.

4.4 Revision policy and practice

4.4.1 Revisions follow a regular, well-established and transparent schedule

The release schedule is predetermined and stable from year to year. An advance release calendar is published on the CSO’s website. Small revisions can be incorporated any time; they are worked back as far as possible. New important source data may be temporarily suppressed until a major revision takes place.

4.4.2 Preliminary data are clearly identified

Notes with all tables explain the status of the estimates: forecast or revised forecast, provisional estimates, and revised estimates. The revised data are accessible on a sufficiently detailed level.

4.4.3 Studies and analyses of revisions are carried out routinely and made public

Although the causes behind the differences between preliminary and final data are routinely analyzed, these are not made available to users in the publications. It is thought that this would confuse users. Such analyses are available on request.

The CSO publishes documentation on sources and methods for revising the data. This discusses the reasons for, and the direction of, revisions but not their magnitude.

5. Accessibility

5.1 Data accessibility

5.1.1 Statistics are presented in a way that facilitates proper interpretation and meaningful comparisons (layout and clarity of text, tables, and charts)

National accounts estimates are disseminated at a detailed level. The series shown in the CSO publications is rather short: they mostly cover only four years. Long and detailed time series are available; yet, these are not advertised. The explanatory texts, tables, and charts are clear and readable.

A list of publications is given on the CSO website and in the *Government Gazette*; the publications of the *Digest* series do not show such a list. Telephone numbers of contact persons from whom further information can be obtained are not mentioned. The *Guide to the Central Statistics Office*, which will appear shortly, will provide more information.

5.1.2 Dissemination media and formats are adequate

National accounts estimates are disseminated through a dedicated annual national accounts publication (*National Accounts of Mauritius*) and in the series *Economic and Social Indicators*. The data can also be found on the website of the Central Statistics Office (CSO) and the parent ministry. Data on diskettes are also available; however, this is not advertised.

5.1.3 Statistics are released on a pre-announced schedule

National accounts estimates are released according to an advance release calendar published on the CSO's website.

5.1.4 Statistics are made available to all users at the same time

National accounts estimates are released simultaneously to all interested users on the date and/or time specified in the release schedule

5.1.5 Non-published (but non-confidential) sub-aggregates are made available upon request

Non-confidential data at the compilation level are available upon request.

5.2 Metadata accessibility

5.2.1 Documentation on concepts, scope, classifications, basis of recording, data sources, and statistical techniques is available, and differences from international standards are annotated

A comprehensive description of national accounts methodology is published annually. The GDDS metadata are published on the IMF Dissemination Standards Bulletin Board (DSBB).

5.2.2 Different levels of detail are provided depending on intended audience and type of collection

Metadata are not made available at different levels of detail.

5.3 Assistance to users

5.3.1 Contact person for each subject field is publicized

Although prompt and knowledgeable service and support will be given, there is no help desk in the CSO. A contact person for the national accounts is mentioned exclusively in the GDDS metadata. The CSO publications mention its website, but no telephone number.

5.3.2 Catalogues of publications, documents, and other services, including information on any charges, are widely available

Information on publications is available sparingly. Other information, such as on services, will soon be made available in the *Guide to the Central Statistics Office*.

II. CONSUMER PRICE INDEX

0. Prerequisites of quality

0.1 Legal and institutional environment

0.1.1 The responsibility for collecting, processing, and disseminating statistics is clearly specified

According to point 16 in the first schedule to the Statistics Act 2000,¹² the CSO is responsible for “compiling prices of commodities and services at any or all transaction levels, rents, cost of living.” Practice is consistent with this Act as no agency in Mauritius other than

¹² Act No. 38 of 2000, signed by the President of the Republic on November 30, 2000 and published in the *Government Gazette of Mauritius* No. 127 of December 2, 2000.

the CSO compiles a CPI, or claims the responsibility for compiling a CPI. Section 3 of the Statistics Act 2000 gives the Director of the CSO the sole responsibility for deciding the extent, form, and timing of publication and dissemination of any statistics produced by that Office.

0.1.2 Data sharing and coordination among data producing agencies are adequate

Data sharing is not needed for the compilation of the CPI, as both the five-yearly Household Budget Surveys (HBS) from which the weights are derived, and the regular price collection are carried out by the CSO. To ensure coordination with the main users and providers of data, a Consumer Price Advisory Committee has been set up (see item 0.3.1 below).

More generally, the coordination of statistical activities in all ministries and government departments is one of the duties of the Director of the CSO (Section 5 of the Statistics Act 2000). In addition, the Statistics Advisory Council advises the Minister responsible for statistical matters on coordination of statistical activities in Mauritius.

0.1.3 Respondents' data are to be kept confidential and used for statistical purposes only

With a few exceptions, the CSO is obliged to respect the confidentiality of individual data. Before entering on duty, all CSO staff have to subscribe a declaration of secrecy. Statistical work is mostly carried out on spreadsheets that have no external electronic links. Individual data are stored under lock, and all computers are password protected.

Sections 17 through 22 of the Statistics Act 2000 deal with confidentiality. Section 17 rules that except for the purposes of a prosecution under the Act, no part of individual returns, and no document that would enable the disclosure of particulars of any person, undertaking, or business, shall be published, admitted in evidence, disclosed to any ministry or government department, or shown to any person not employed in the execution of the Act. However, the possible identification of individual data merely by reason of the fact that an undertaking is the only one within its particular sphere of activities does not prevent publication. The CSO may also disclose (i) information available to the public under any public document, (ii) basic enterprise information such as name, address, industrial classification, and number of employees, (iii) details of external trade, (iv) information relating to a local authority or other statutory body. With approval of the Minister, the CSO may further disclose individual records for research and statistical purposes, provided that all identifying information has been removed and the persons involved in the research or statistical project have made a declaration of secrecy.

Section 20 of the Statistics Act 2000 stipulates that the CSO should take steps to ensure the security and confidentiality of statistical information in whatever form it is stored. Furthermore, all individual census and surveys forms containing names and addresses should be destroyed after the data have been processed and validated, but not later than five years after the completion of the census or survey (Section 21).

Finally, Section 22 of the Statistics Act 2000 prescribes the declaration of secrecy required from every person employed in the execution of the Act. The wording of this declaration is set out in the third schedule given by the Act.

Further protection is provided under the Official Secrets Act 1972, Article 3.2.f.

0.1.4 Statistical reporting is ensured through legal mandate and/or measures implemented to encourage voluntary response

Section 13 of the Statistics Act 2000 gives the CSO the power to obtain particulars in respect of any statistical collection carried out in accordance with the Act. The CSO also has access to public or other records if approval of the Minister has been obtained. However, no person is required to supply information on technical processes or trade secrets. Refusal or neglect to provide information, or making untrue statements are offences and subject to the payment of a fine and imprisonment. The CSO does not have the right to inspect books and records, premises, and stocks of businesses or persons in case of non-compliance.

The CSO implements various measures to encourage voluntary response. For instance, households whose cooperation is sought for the HBS receive a letter from the CSO director that explains the purpose of the survey and provides information about confidentiality. Usually, the HBS gives rise to a presentation by the Minister on television. In addition, oral information is provided during the visits of the interviewers. Outlets that have been selected for price collection receive a letter signed by the director of statistics that explains the purpose of the CPI and shows the tables that are being produced on occasion of the revision of the base year and when the outlet is contacted for the first time. Supervisors and the senior statistician can be contacted if problems arise.

0.2 Resources

0.2.1 Staff, financial, and computing resources are commensurate with institutional programs

The number of staff for the CPI program is adequate (two statisticians, four price collectors on the island of Mauritius and two price collectors on Rodrigues). Staff has sufficient experience and knowledge of concepts. The price collectors receive practical training by a supervisor; a price collectors' manual does not exist. Higher staff participate in international training sources and seminars, for instance those organized by the South African Development Community and the International Labor Office. Overall, the conditions of employment have been sufficient to retain experienced staff.

The CSO has allocated sufficient financial resources to its CPI program. Adequate computer capacity is available (a new machine was recently acquired). An example of staff skills is that they developed an Excel program to double-check the results of the main program used to compile the statistics.

0.2.2 Measures to ensure efficient use of resources are implemented

The CSO does not estimate the costs of producing individual statistics. Neither does it collect information on how much the burden laid on respondents is. A statistical program that addresses issues concerning the efficient use of available resources does not exist.

However, the cost of large censuses and surveys, such as the HBS, is carefully monitored.

0.3 Quality awareness

0.3.1 Processes are in place to focus on quality, to monitor the quality of the collection, processing, and dissemination of statistics, to acknowledge and deal with tradeoffs within quality, and to guide planning for existing and emerging needs

Quality monitoring is largely implicit in the CSO's work processes; a separate plan for improving quality does not exist. It should be noted however, that since participating in the GDDS, the CSO has undertaken major efforts to improve the quality of its statistics.

The setting of statistical priorities, formulation of programs of work, and discussion of various aspects of quality are expected to result from the activities of the newly created Statistics Advisory Council. This Council has, among other things, the function of advising the Minister on:

- the improvement, extension, coordination, and harmonization of statistical activities in Mauritius;
- the actual and perceived integrity of, and public confidence and trust in, Mauritius's statistics; and
- the maintenance of independence, accuracy, relevance, integrity, timeliness, and professional standard of statistical information produced in Mauritius.

At each review of the CPI, the CSO sets up a CPI Advisory Committee to bring together representatives of workers, employers, traders, consumers and government for consultation and advice. For instance, the Committee is requested to endorse proposals on the types of households covered or the aggregation formula to be used for the coming period.

Periodic user surveys or other systematic means of obtaining feedback from users do not exist in respect of the CPI.

1. Integrity

1.1 Professionalism

1.1.1 Statistics are compiled on an impartial basis

The CSO compiles the CPI statistics on an impartial basis. According to the Statistics Act 2000, the Director of the CSO shall ensure the independence of the statistical information produced by that agency. The Act also states that the Director has the sole responsibility for deciding the procedure and method to be employed in the provision, as well as the extent, form, and timing of publication and dissemination of any statistics produced by the CSO.

The professionalism of staff is promoted by writing interpretations of the data, preparing methodological papers on the occasion of revisions, the organization of seminars for users of the CPI, and CSO-supported occasional lectures by higher staff at the University of Mauritius.

1.1.2 Choices of sources and statistical techniques are informed solely by statistical considerations

The compilers are free to choose the data sources and statistical techniques they think fit. However, the CSO is not free to collect any mandatory statistics until regulations have been made by the Minister prescribing the particulars and information to be furnished in relation to the statistics that are to be collected.

1.1.3 The appropriate statistical entity is entitled to comment on erroneous interpretation and misuse of statistics

In Mauritius, it is not deemed appropriate for the Director of the CSO to comment on erroneous interpretation or the misuse of statistics. In future, the Statistics Advisory Council might do so, as Section 24 of the Statistics Act 2000 allows the Council to issue public statements on any matter related to its functions after consultation with the agency involved.

1.2 Transparency

1.2.1 The terms and conditions under which statistics are collected, processed, and disseminated are available to the public

The Statistics Act 2000 defines the terms and conditions under which the CSO produces and disseminates data. The Statistics Act is, among other things, posted on the CSO's Internet page.¹³

¹³ The CSO's website is <http://statsmauritius.gov.mu>.

1.2.2 Internal governmental access to statistics prior to their release is publicly identified

Internal government access to the CPI (by the Financial Secretary and the Director of Economic Development, Financial Services & Corporate Affairs, and the Permanent Secretary of the Ministry of Industry, Commerce and International Trade) prior to their release date is identified.

The CSO releases its data simultaneously to all interested parties. The first hard copy publication is in the weekly *Government Gazette*, but if data are ready they may be first released on the Internet. The possibility of this early release is not publicized.

1.2.3 Products of statistical agencies/units are clearly identified as such

In general, products of the CSO are clearly identified as such, even though various publications also indicate the name of the parent ministry.¹⁴ This is also the case for the publication of the CPI in the *Economic and Social Indicators* series. However, the *Government Gazette* does not indicate the source of the CPI data.

1.2.4 Advance notice is given of major changes in methodology, source data, and statistical techniques

Major changes in methodology are discussed in the CPI Advisory Committee where the major stakeholders are represented, but they are not announced in publications or otherwise.

1.3 Ethical standards

1.3.1 Guidelines for staff behavior are clear and publicized

Ethical rules for staff are laid down in the Code of Ethics for Public Officers and in the Official Secrets Act, both of which are published. The Statistics Act 2000 contains further provisions concerning the faithful and honest fulfillment of duties of staff and the limitations on disclosure of information that comes to their knowledge by reason of employment.

2. Methodological soundness

2.1 Concepts and definitions

¹⁴ The Ministry of Economic Development, Financial Services, and Corporate Affairs.

2.1.1 The overall structure in terms of concepts and definitions follows international standards, guidelines, or agreed practices

The CPI concepts and definitions are based on the international standards and recommendations of the ILO. This includes the choice of weights for the CPI.

2.2 Scope

2.2.1 The scope is broadly consistent with international standards, guidelines, or agreed practices

The HBS and the CPI cover the full economic territory of the country, that is, the island of Mauritius and the island of Rodrigues.

The delimitation of the constituent units of the economy is broadly in accordance with the *1993 SNA*. Both urban and rural households are covered, as well as households of all sizes. However, only households with Mauritian nationality are included, instead of all economically resident households. Institutional households are not covered. With respect to households that are involved in unincorporated business activities (including farmers and fishermen), a separation between purchases for business purposes and final consumption expenditure is made.

In addition to market goods and services for consumption, household consumption also includes goods produced on own account for final consumption.¹⁵ However, housing services produced by owner-occupiers are not included. Illegally marketed services sold to willing buyers are in principle included, but no corrections are made for any underreporting of this item.

2.3 Classification/sectorization

2.3.1 Classification/ sectorization systems used are broadly consistent with international standards, guidelines, or agreed practices

The consumer basket is classified by the functional classification that was recommended by the *1968 SNA*,¹⁶ by branch, by type of outlet, and by island. Nine major commodity groups are distinguished, 37 groups, 100 subgroups, and 251 item classes.

¹⁵ This may change in future in accordance with the recommendation of the SADC that the CPI should exclusively cover purchased goods and services.

¹⁶ By the next revision, the Classification of individual consumption by purpose (COICOP) will be adopted.

2.4 Basis for recording

2.4.1 Market prices are used to value flows and stocks

The valuation rules used for recording flows and stocks are in accordance with the 1993 SNA. Purchases are valued at purchaser's values, that is, including trade and transport margins, net taxes on products and non-deductible value added tax (VAT). Production for own use is valued at equivalent market prices.

The products for which prices are collected are valued at their price against cash (so excluding additional cost for payment by credit card, etc.).

2.4.2 Recording is done on an accrual basis

Prices of goods and services are recorded in the period they are purchased.

2.4.3 Grossing/netting procedures are broadly consistent with international standards, guidelines, or agreed practices.

Sales of used cars or valuables are not netted out against purchases (if any) of new cars, jewelry, etc. In this respect, the CPI deviates from the netting procedures recommended in the 1993 SNA.

3. Accuracy and reliability

3.1 Source data

3.1.1 Source data are collected from comprehensive data collection programs that take into account country-specific conditions

The source for the CPI weights is the quinquennial HBS. The survey sample methodology and the estimation procedures are reviewed during the preparation of each HBS. The 1996/97 HBS was based on a sample of 6,240 households out of a total number of households of around 250,000,¹⁷ using a two stage stratified sampling design with probability proportional to size. At the first stage, a sample of 780 Enumeration Areas (EAs) was selected from the total of 3,349 EAs after stratification in urban, semi urban and rural. All selected EAs were spread evenly over the 12 months of the survey period to take care of the seasonal consumption expenditure. Thus, the fieldwork was performed in 65 EAs each month. The ultimate sampling households were selected after a complete listing of all households in each EA. A fixed number of 8 households were selected by the circular systematic sampling method after stratification by household size, consumption expenditure class and religion. Non-response was handled by replacement with another household.

¹⁷ Thus, the sample size was 2.5 percent of total households.

The selection of the list of goods and services to be priced for the CPI, as well as the outlets from which price quotes are collected, has been made on the basis of a study into the buying habits of the population. The representative items and varieties were selected on sales volume; their total number is 749. For every category that represents more than 0.1 percent of expenditure, a representative item has been sought. Outlets were selected on regional distribution, sales volume, and expectation that they are able to offer the selected items on a regular basis. From the 335 selected outlets, about 7,625 price quotations are collected. The product specifications are sufficiently detailed to ensure that the same variety is priced each period. The sample and survey methods for the CPI are also reviewed every five years.

Ad-hoc surveys to supplement the regular survey program are neither conducted regarding the HBS nor the CPI pricing procedures.

3.1.2 Source data reasonably approximate the definitions, scope, classifications, valuation, and time of recording required

The source data are consistent with the definitions, scope, valuation and classifications required for CPI purposes.

The prices are collected through personal visits, except in the case of standard tariffs such as the prices for electricity, water, public transport, and telephone that are obtained directly from producers. The observed prices are transaction prices, that is, those that any member of the public would pay to purchase the specific good or service.

The prices of perishable items are collected on a weekly basis (always on the same day and in a two-hour interval), while those for non-perishables are recorded once a month on a day falling between the 12th and the 18th.

3.1.3 Source data are timely

Source data are sufficiently timely: the first CPI after revision of the base year is three months after the HBS has been conducted. The price collection allows publication of the CPI ten days after the reference month or earlier, that is, in accordance with SDDS prescriptions.

3.2 Statistical techniques¹⁸

3.2.1 Data compilation employs sound statistical techniques

The weights emerging from the HBS are adjusted for known underreporting in particular items (tobacco, alcoholic beverages).

An unbiased formula is used to calculate the elementary level indices, namely the arithmetic mean of price relatives between prices observed in the current month and those of the base period. Nevertheless, the use of a geometric average would be preferable. The formula used to aggregate elementary indices to higher levels is the Laspeyres.

3.2.2 Other statistical procedures (e.g., data adjustments and transformations, and statistical analysis) employ sound statistical techniques

Temporarily (up till three months) missing prices are carried forward. Replacements are sought for items that have disappeared from the market—appropriate adjustment is made for quality changes by collecting prices for an overlap period or by consulting the selling unit. If no replacement item can be found, the weight of the permanently disappeared item is distributed over the remaining items. New products are only introduced when a new basket is selected.

Seasonal adjustment is made for vegetable items by system of variable weights.¹⁹

3.3 Assessment and validation

3.3.1 Source data—including censuses, sample surveys and administrative records—are routinely assessed, e.g., for coverage, sample error, response error, and non-sampling error; the results of the assessments are monitored and made available to guide planning

Information about sampling errors is published with respect to the HBS. As the CPI price surveys are conducted on the most popular brands in terms of sales, the sampling errors cannot be quantified in that area.

If outliers are detected, their cause is investigated; if no apparent mistake is found the deviating value is accepted for the calculation of the CPI. All surveys are audited to verify the accuracy of the individual survey data. At higher levels of aggregation, price changes

¹⁸ This section concerns the source data for the annual national accounts as defined in the IMF SDDS (published 12-14 months after the end of the year).

¹⁹ The CSO may revise the current methodology for dealing with seasonal products.

between regions are compared. The calculation of the index takes place by two independently working programs to verify the correct treatment of data in the automated process.

The CPI is not regularly assessed against the implicit deflators resulting from the national accounts or import price indices. On the other hand, comparisons are made with the producer price index.

The CSO always analyzes the source data in the context of revisions.

3.3.2 Main intermediate results are validated against other information where applicable

There are no opportunities to validate intermediate results against independent data sources and statistical frameworks.

3.3.3 Statistical discrepancies and other potential indicators of problems in statistical outputs are investigated and made available to guide users

All problems are investigated as they surface, but these kinds of analysis are not made available to the public.

3.4 Revisions

3.4.1 Studies and analyses of revisions are carried out routinely and used to inform statistical processes

In accordance with international practice, the CPI is not revised. However, differences between the (published) forecast inflation rate and the realized overall price change are subject to analysis.

3.4.2 Revision studies and analyses are made public and used to guide data users

The revision of the base year gives rise to studies that are made available to the public.

4. Serviceability

4.1 Relevance²⁰

²⁰ Relevance reflects the degree to which the program addresses the issues of most concern to the users.

4.1.1 Processes to monitor the relevance and practical utility of existing statistics in meeting users' needs are in place

The CSO assesses whether the CPI adequately responds to user needs by means of the CPI Advisory Committee mentioned earlier.

4.2 Timeliness and periodicity

4.2.1 Periodicity follows dissemination standards

The CPI is monthly, according to international standards.

4.2.2 Timeliness follows dissemination standards

The CPI, in accordance with international standards, is disseminated within ten days of the reference month thereby meeting SDDS timeliness requirements. Efforts are undertaken to release the data as soon as possible.

4.3 Consistency

4.3.1 Statistics are consistent or reconcilable over a reasonable period of time.

Consistent time series data are available without break for the period since the last HBS, that is to say, for at most five years. Back series are calculated by means of linking factors for an overlap year (which may result in discontinuity in the series).

4.3.2 Statistics are internally consistent (e.g., accounting identities observed)

Not applicable.

4.3.3 Statistics are consistent or reconcilable with those obtained through other data sources and/or statistical frameworks

Such comparisons have not been made.

4.4 Revision policy and practice

4.4.1 Revisions follow a regular, well-established and transparent schedule

The revision schedule follows a well-established rhythm of five years. New important source data might be temporary suppressed until the major revision takes place: for instance, the recent growth of use of cellular phones does not give rise to change the basket weights before a new HBS is held.

4.4.2 Preliminary data are clearly identified

Not applicable.

4.4.3 Studies and analyses of revisions are carried out routinely and made public.

Differences between the results of subsequent HBSs are analyzed and published in the report *Household Budget Survey*.

5. Accessibility

5.1 Data accessibility

5.1.1 Statistics are presented in a way that facilitates proper interpretation and meaningful comparisons (layout and clarity of text, tables, and charts)

The main results of the CPI are published every month on the Internet and in the *Government Gazette*. More details are included in the quarterly *Economic and Social Indicators* dedicated to the CPI. The latter publication includes a discussion of the main items,²¹ the overall index for three past years and the current year, a table with the net contribution of main commodities that have affected the index during the last quarter, the weights of the nine major commodity groups and the indices for the current year, and the inflation rates for calendar years and fiscal years since 1975.

Although, as indicated above, the calculations distinguish between 251 item classes, the CPI is only published by its nine major commodity groups. The analysis that accompanies the tables published in the *Economic and Social Indicators* series usually illustrates the causes of price change by mentioning the monthly-to-month variation in the price of selected items, but longer time series for these items are not given.

5.1.2 Dissemination media and formats are adequate

Besides publication on the Internet, the *Government Gazette*, and the *Economic and Social Indicators* series, annual publication takes place in *Mauritius in Figures and Digest of Statistics*. Publication is not accompanied by a press release.

Longer time series are available free of charge on request, but this opportunity is not advertised.

²¹ A note warns the readers that a distinction should be made between official data and the analysis presented for the benefit of general readers (the latter may be subject to interpretation).

5.1.3 Statistics are released on a pre-announced schedule

The CPI is released according to a continuously updated advance release calendar published on the CSO's website. However, this relates to the quarterly publication rather than the first release of the index.

The first release (which takes place on the Internet) is not on a specific day and hour, but rather at the very moment the data are ready.

5.1.4 Statistics are made available to all users at the same time.

The CPI is released simultaneously to all interested users on the same date.

5.1.5 Non-published (but non-confidential) sub-aggregates are made available upon request

Non-confidential data at the compilation level are available upon request, but this opportunity is not advertised.

5.2 Metadata accessibility

5.2.1 Documentation on concepts, scope, classifications, basis of recording, data sources, and statistical techniques is available, and differences from international standards are annotated

A comprehensive description of both the HBS and CPI methodology is published every five years in the *Household Budget Survey*. The GDDS metadata are published, among other things, on the IMF data dissemination bulletin board.

5.2.2 Different levels of detail are provided depending on intended audience and type of collection

Particularly for non-technical users, a concise publication has been published under the title *Understanding the Consumer Price Index (CPI)*.

5.3 Assistance to users

5.3.1 Contact person for each subject field is publicized

Although prompt and knowledgeable service and support will be given, there is no help desk in the CSO. A contact person for the CPI is exclusively mentioned within the GDDS metadata. The CSO publications mention its website, but no telephone number.

5.3.2 Catalogues of publications, documents, and other services, including information on any charges, are widely available

Information on publications is sparingly available. Other information, such as on services, will be made available soon in the *Guide to the Central Statistics Office*.

III. GOVERNMENT FINANCE STATISTICS

0. Prerequisites of quality

0.1 Legal and institutional environment

0.1.1 The responsibility for collecting, processing, and disseminating statistics is clearly specified

No specific legal responsibility has been granted to a single agency to compile government finance statistics (GFS). The CSO has the institutional responsibility under the Statistics Act 2000 (Article 5.1.b) to collect, compile, analyze, abstract, publish and disseminate statistical information on economic activities. The CSO is the only agency that collects, processes and disseminates general government statistics. The Ministry of Finance (MOF) collects, processes and disseminates (primarily) budgetary central government statistics. In compliance with Section 19 of the Finance and Audit Act 1973 the Accountant-General in the Treasury Department of the MOF publishes an Annual Report showing the financial position of Mauritius as of the last day of the financial year (June 30). However, neither the CSO nor the MOF is required legally to produce GFS.

0.1.2 Data sharing and coordination among data producing agencies are adequate

The MOF publishes aggregates for the budgetary central government that follow the GFS. Similarly, these data are shared with the CSO that publishes GFS data for the general government.

The MOF provides all the necessary information on the budgetary central government to the CSO for the compilation of GFS. The BOM provides additional details on the domestic financing of government. Local authorities and extra-budgetary units also provide information on their operations.

The CSO also is responsible for compilation of the national accounts. The GFS compilers within the CSO also contribute to the relevant compilation of the general government sector in the national accounts.

The relationships between users and compilers have not been formalized thus far. Some of the main users (such as the Ministries of Finance; Economic Development, Financial Services and Corporate Affairs; and Local Government, as well as the BOM) provide some feedback via additional data requests on occasion. The newly established Statistics Advisory

Council (established in May 2001) has the authority under the Statistics Act 2000 to develop these relationships.

*0.1.3 Respondents' data are to be kept confidential and used for statistical purposes only.*²²

The confidentiality of the data is protected under the Statistics Act 2000, especially Articles 17 (Restriction on disclosure of information), and 22 (Declaration of secrecy) and schedules 2 and 3 (secrecy declarations to be signed by officials). Further protection is provided under the Official Secrets Act 1972, Article 3.2.f.

0.1.4 Statistical reporting is ensured through legal mandate and/or measures implemented to encourage voluntary response.

Under Article 7 of the Statistics Act 2000 heads of ministries, government departments, administrative heads of local governments and statutory bodies must report the statistical information required by the Director of the CSO. Under Article 7 of the Statistics Act 2000, these government agencies and statutory bodies must complete and transmit the required information "at the times, in the manner and for the periods as may be prescribed." In addition, under Article 14 the CSO Director (or any authorized officer) can obtain statistical information from any record or document of the government, local authority or statutory body. The Statistics Act 2000 contains provisions for penalties under Article 28.2 (up to 20,000 rupees).²³

0.2 Resources

0.2.1 Staff, financial, and computing resources are commensurate with institutional programs

Resources are scarce; in particular staff resources are constrained. The MOF, Public Finance section has one staff member dedicated to GFS compilation for the budgetary central government and the overall public sector (the latter is no longer possible). Two staff members are assigned to produce statistics for external and internal public and private debt, as well as monitoring debt developments. The CSO has four staff positions dedicated to GFS compilation, of which three are currently filled. These staff also are assigned to compile general government and financial services statistics for the national accounts. While computer resources seem adequate at the moment, any additional demands would over-extend these resources.

²² Not normally applicable to general government units, but is relevant to data collected from public corporations where GFS is applied to the wider public sector.

²³ This was equivalent to about US\$660 in July 2001.

On-the-job and external training have been available to the MOF and CSO staff. Formal internal training has not been provided. While some staff have attended external training on the *Manual on Government Statistics, 1986 (GFSM 1986)*, training on the *Government Finance Manual, 2001 (2001 GFSM)* would be useful for both sets of staff.

Significant progress to automate government finance compilation procedures has been achieved recently through the implementation of the Treasury Accounting System (TAS) used by the Accountant-General to follow the cash flows of the budgetary central government. However, few efforts have been made thus far to extend this automation to other areas of GFS. Data for non-budgetary central government and local governments are input manually.

0.2.2 Measures to ensure efficient use of resources are implemented

Costs associated with compiling GFS are not measured.

Attempts to use resources efficiently are ad hoc and informal. Budget costs are not measured routinely, therefore they are not assessed against desired output targets. There is duplication of effort in the MOF and CSO to collect data, especially on extra-budgetary units (EBUs) and local governments.

0.3 Quality awareness

0.3.1 Processes are in place to focus on quality, to monitor the quality of the collection, processing, and dissemination of statistics, to acknowledge and deal with tradeoffs within quality, and to guide planning for existing and emerging needs

Senior staff in the MOF and CSO have put strong emphasis on quality statistics. In addition, the Statistics Act 2000 (Article 24.1.vii) highlights aspects of quality statistics to be maintained by the Statistics Advisory Council: “the maintenance of independence, accuracy, relevance, integrity, timeliness and professional standard of statistical information produced in Mauritius.”

Processes to monitor the quality of production and dissemination of GFS are not formalized.

The trade-off between accuracy and other considerations (such as timeliness) are acknowledged. In fact, the authorities only publish audited annual GFS data. This results in significant delays in the GFS.

The statistical plans (including especially the GDDS plans for improvements) take some aspects of quality into account.

The autonomous Auditor’s Office audits all the budgetary central government units, most of the extra-budgetary units, and all local government units in the general government.

The Audit Office observes international accounting standards and GFS is compiled following the IMF's *GFSM 1986*.

1. Integrity

1.1 Professionalism

1.1.1 Statistics are compiled on an impartial basis

The independence of the CSO, as the central depository of statistics and particularly in its capacity as GFS compiler is assured through the Statistics Act 2000. However, the budgetary central government statistics are compiled by the Public Finance section in the MOF, which also prepares the annual budget.

1.1.2 Choices of sources and statistical techniques are informed solely by statistical considerations

There is no evidence of political interference in the selection of sources and methods, which are the responsibility of technical staff in the CSO and MOF.

Changes to statistical techniques are not influenced by political considerations, but implementation of the new GFS methodology would require the support of the political leaders, including the Ministers of Finance and Economic Development, Financial Services and Corporate Affairs. Certain decisions to increase the frequency and timeliness of the data or to publish preliminary estimates would need to take political considerations into account.

1.1.3 The appropriate statistical entity (e.g., GFS compiling unit) is entitled to comment on erroneous interpretation and misuse of statistics

The CSO and MOF staff can provide expert advice on technical (not policy) aspects of GFS, but are rarely asked to do so.

The MOF staff are not allowed to comment publicly on the erroneous interpretation or misuse of statistics. The Minister of Finance comments on the budget (which includes central government statistics).

1.2 Transparency

1.2.1 The terms and conditions under which statistics are collected, processed, and disseminated are available to the public

The Statistics Act 2000 is publicly available. There is no specific legislation on GFS.

Annual data are released to the public annually without restriction.

1.2.2 Internal governmental access to statistics prior to their release is publicly identified

The MOF compiles monthly and quarterly data on the budgetary central government for internal policy purposes; however, these data are not yet published. The quarterly data are shared with CSO's GFS compilers. The internal MOF use of raw data is not announced to the public. The MOF compilers plan to publish these quarterly data.

Public GFS data are released simultaneously to all interested parties.

Approval processes for publication are not made public. In the CSO the publication of GFS data must be approved by the Director. The publication of the budgetary central government data in the GFS format is part of the budget documents issued by the MOF and must be approved by the Director of the Public Finance section, the Financial Secretary, and the Minister of Finance.

1.2.3 Products of statistical agencies/units are clearly identified as such.²⁴

The GFS data released by the CSO are clearly identified as such.

1.2.4. Advance notice is given of major changes in methodology, source data, and statistical techniques.

While no advance notice is given of major changes in methodology, source data, or statistical techniques, the authorities state that changes would be clearly identified with the related published data.

The authorities state that changes that would cause a break in the time series would be identified. No examples are apparent of recent identified breaks in time series. There appear to be no explanatory footnotes providing such identification in recent publications because no breaks in time series have occurred recently (see section 4.3).

1.3 Ethical standards

1.3.1 Guidelines for staff behavior are clear and publicized

The behavior of all civil servants falls under the "Code of Ethics for Public Officers". In addition, the Statistics Act 2000 enumerates offenses under the Act and penalties (up to 50,000 rupees²⁵ and imprisonment for up to one year). There is no specific code of conduct for compilers of GFS.

²⁴ Relevant to GFS only where a Statistical agency/unit has responsibility for compiling GFS.

²⁵ This was equivalent to about US\$1,670 in July 2001.

The CSO and the MOF have been involved in seminars and conferences to promote professionalism; however the staff have not prepared methodological papers for publication.

2. Methodological soundness

An interim period is provided for countries that have yet to adopt *GFSM 2001* during which such countries will be assessed on the basis of the *1986 GFS Manual (GFSM 1986)* guidelines outlined in the GFS DQAF. Countries that have largely adopted the *2001 GFS Manual (GFSM 2001)*²⁶ would be assessed based on the indicators in the generic GFS DQAF. After the interim period, assessment of methodological soundness for all countries should be based on *GFSM 2001*.

The *GFSM 1986* guidelines are used in the following assessment.

2.1 Concepts and definitions

2.1.1 The overall structure in terms of concepts and definitions follows international standards, guidelines, or agreed practices

Mauritius's GFS are compiled based on the *GFSM 1986*.

2.2 Scope

2.2.1 The scope is broadly consistent with international standards, guidelines, or agreed practices

All general government activities are covered.

The tables (a) Summary of Table of Major Components; (b) Government Revenue and Grants (Table A); (c) Classification of the Functions of Government (Table B); and (d) Economic Classification of Government Expenditure and Lending minus Repayments (Table C); are prepared by the CSO for general government. Tables on Financing by Type of Debt Holder and by Debt Instrument (Tables D and E) are not prepared for general government; these tables are prepared only for the consolidated central government (including extra-budgetary and social security agencies). The consolidated central government represents the most of the value of these financing transactions of the general government. Table D could be improved through the explicit identification of net lending minus repayments. A cross-classification of expenditure by function and economic classification is not prepared.

²⁶ The manual for the new system is available on the Fund website
(<http://www.imf.org/external/pubs/ft/gfs/manual/index.htm>).

Tables on general government gross debt are only presented at the level of the consolidated central government; however, since the local governments reportedly do not borrow or lend on a significant scale, these are close to the gross debt for general government.

No preliminary data are prepared for the general government. All data are complete and actual when published; therefore, the scope is complete upon publication. This has resulted in a long lag for the general government data (see 3.13 and 4.2).

2.3 Classification/sectorization

2.3.1 Classification/ sectorization systems used are broadly consistent with international standards, guidelines, or agreed practices

The *GFSM 1986* methodology is followed. A few units are not properly sectorized; sectorization of units is under review in the context of the migration to the *GFSM 2001*. For example, the Employees Welfare Fund and the National Savings Fund appear to be misclassified as part of social security, rather than central government units. In addition, the MOF includes the newly established Road Development Authority and the Trust Fund for Social Integration of Vulnerable Groups in budgetary central government in its GFS methodological notes. These are properly classified as part of the central government. In its April 2001 *Digest of Public Finance Statistics*, the CSO included these units in the budgetary central government data, even though they listed them as extra-budgetary units.

GFS data are provided separately for each level of government; there are no state or provincial governments.

2.4 Basis of recording

2.4.1 Prices are used to value flows and stocks reflect actual or expected cash payments

All flows are measured in cash or cash equivalents. The extra-budgetary units provide both cash and accrual statements and the cash statements are used to compile GFS.

Gross domestic debt is valued at historical cost. The stock of gross external debt (consisting of loans only) is valued at current market prices (revalued using the end of the period exchange rate).

In contrast with GFS recommendations, international transactions are converted into rupees using the actual exchange rate rather than the mid-rate (between buying and selling rates). The latter would allow the calculation of the purchase of financial services associated with these transactions. While it is useful to estimate these financial services, it may not be worth the additional effort.

2.4.2 Recording is done on a cash basis

Transactions are recorded when payments are made or received.

2.4.3 Grossing/netting procedures are broadly consistent with international standards, guidelines, or agreed practices

Practically all transactions (including the sales of market establishments) are recorded on a gross basis. Refunds of revenue are netted from non-tax revenue administrative fees, charges and sales.

3. Accuracy and reliability

3.1 Source data

3.1.1 Source data are collected from comprehensive data collection programs that take into account country-specific conditions

Administrative systems provide stocks and flows for central government. No financing data are available for extra-budgetary units or local governments. Lending and borrowing by these units usually is small, so that central government stock of liabilities reveal most of the stock for general government.

Data are consolidated for the central government sector.

Data are used to compile all the different levels of government: budgetary central government, consolidated central government, and general government. There are no state or regional government agencies.

The last one or two months of the fiscal year are estimated for the budgetary central government in the MOF recurrent budget document. Despite the long delays in reporting and auditing, there is no estimation of the missing data for extra-budgetary units and local governments in the CSO data. No estimates are made for the financing of these units.

Local government data are collected through audited income and expenditure statements (provided on a cash basis), but completed sometimes with a lag of two years. This is because of lengthy reporting and auditing. There are five municipalities, four district councils, and 98 village councils that comprise local governments. Local government is small relative to the rest of government.

3.1.2 Source data reasonably approximate the definitions, scope, classifications, valuation, and time of recording required

Budgetary data are reclassified to conform to aggregate GFS categories and a derivation table is published in the annual budget. A list of adjustments to align the data to GFS categories is coordinated with the CSO.

The relatively new Treasury Accounting System (TAS) that contains the budgetary central government data is not linked directly to GFS categories. Data are loaded manually.

The timing of recording and valuation of source data are consistent with GFS concepts. The extra-budgetary unit data are provided on both an accrual and cash basis.

3.1.3 Source data are timely

Budgetary central government data are available for internal use by the MOF (on a provisional basis) monthly and are timely (with a lag of about two weeks after the end of the month; 3-4 weeks for June, the last month of the fiscal year). However, these data are not published.

Data for extra-budgetary units are available with a one-year lag after the end of the reference period.

In general, data for local government are available with a one-year lag after the end of the reference period. Audited data may take almost two years.

3.2 Statistical techniques

3.2.1 Data compilation employs sound statistical techniques

The estimation of the last 1-2 months of budgetary central government data by the MOF is based on accepted statistical processes (including extrapolation).

Local government data are not captured through surveys.

3.2.2 Other statistical procedures (e.g., data adjustments and transformations, and statistical analysis) employ sound statistical techniques.

Data are based primarily on administrative records and few statistical techniques are applied. Data adjustments and reclassifications appear to follow sound statistical techniques.

3.3 Assessment and validation

3.3.1 Source data—including censuses, sample surveys and administrative records—are routinely assessed, e.g., for coverage, sample error, response error, and non-sampling error; the results of the assessments are monitored and made available to guide planning.

Frequent data gaps occur for extra-budgetary units and local governments. Efforts are applied to encourage timely and complete reporting. Plans to review reporting procedures and to move to higher frequency reporting (quarterly data collection) is under consideration.

Accuracy is clearly favored at the expense of timeliness.

In general, the published data have been audited by the Director of Audit. Discrepancies above- and below-the-line are typically small (0.04 percent of GDP) and are resolved with a discrepancy item in domestic financing (although it is attributed erroneously to the budgetary central government). However, as in other countries applying the *GFSM 1986* methodology, it would be difficult to assess the linkages between flows and stocks.

Preliminary data for budgetary central government (which contain estimates for 1-2 months) are replaced by final audited data in the following year's publication. Other data are published only after audited data become available.

GFS data are not used for policy purposes. Monthly and quarterly budgetary central government data are produced in the MOF for internal purposes to guide policy, but these data are produced following the budget rather than a GFS analytical format. Monthly data are used to compile a preliminary annual GFS estimate for budgetary central government. These data are not used to compile preliminary monthly or quarterly GFS. GFS data, which are produced annually, are less useful for policy purposes.

All GFS general government data are final when published. Budgetary central government data are identified as actual, preliminary estimates, and forward budget estimates.

Usually there are no material differences (for budgetary central government data) when complete data become available. There is no need to correct the general government data because they are not estimated.

3.3.2 Main intermediate results are validated against other information where applicable

Differences in the treatment of some transactions by the CSO and MOF have given rise to inconsistent estimates of government deficits. The most important issue arose concerning the sale of shares in a government telecommunications unit and whether the transaction should be recorded as net lending minus repayments or as financing. The CSO chose the former and the MOF the latter. Both deficits were reported by the CSO, with appropriate explanatory footnotes.

3.3.3 Statistical discrepancies and other potential indicators of problems in statistical outputs are investigated

Both the CSO and the MOF make use of the BOM monetary data for domestic financing (based on historical cost on a cash basis) and compare them against the aggregated data compiled by the Accountant-General (Treasury, MOF). The Accountant-General's aggregate data are considered more reliable, but the BOM provides detailed breakdowns that are not available elsewhere. The CSO and MOF also make use of data on external financing compiled by the Accountant-General. Financing data are only available for the central government.

The residual in the central government accounts is added to domestic financing (although it is attributed erroneously to the budgetary central government). These discrepancies have been small (0.04 percent of GDP).

3.4 Revision studies

There are virtually no revisions, except for the small updates to the latest annual budgetary central government figures. This would update the last one or two months of data that were not available at the time of the budget. Budgetary central government aggregates are compared after the annual revision and the changes are extremely small. Therefore, there are no other revision studies.

There are effectively no revisions.

3.4.1 Studies and analysis of revisions are carried out routinely and used to inform statistical processes

Not applicable.

4. Serviceability – Statistics are relevant, timely, consistent, and follow a predictable revisions policy.

4.1 Relevance

4.1.1 Processes to monitor the relevance and practical utility of existing statistics in meeting users' needs are in place

The budgetary central government data are compiled concomitantly with the budget preparation. The Minister of Finance reviews the outcome of the previous fiscal year in the budget speech. However GFS are not used to formulate, monitor or evaluate fiscal policy. The IMF uses the available fiscal data as part of the Article IV discussions with the authorities, including a medium-term fiscal scenario.

GFS are not available with adequate timeliness to allow users to track fiscal policies.

The analytical framework follows the *GFSM 1986* closely and could be suitable for users' analytical needs, if the data were more frequent and timely.

Feedback from users is not sought on a regular basis.

4.2 Timeliness and periodicity

4.2.1 Periodicity follows dissemination standards

Central government operations are published only annually. This compares with the GDDS recommendation to publish budgetary central government quarterly data (monthly data for the SDDS).

General government operations are published annually. This category is encouraged in the GDDS and is required annually in the SDDS.

Central government debt is published only annually. The GDDS recommended practice is to publish annual data, but quarterly data are encouraged. The SDDS requires quarterly data.

4.2.2 Timeliness follows dissemination standards

The timeliness of the annual budgetary central government operations is about 11 months after the end of the reference year in the MOF budget documents. Detailed annual data for the consolidated central government are available 9-11 months after the end of the reference fiscal year (July 1-June 30) in the *CSO Digest of Public Finance Statistics*. This compares with the GDDS recommendation to publish budgetary central government quarterly data within one quarter of reference period. This also compares with the GDDS recommendation to publish annual consolidated central government data within 6-9 months after the reference period (monthly data within one month under the SDDS requirements).

The timeliness of general government operations is about one year and nine months after the end of the reference year in the CSO publication. This compares with the GDDS encouraged practice to publish annual general government data within 6-9 months of reference period (within two quarters under the SDDS requirements)

The timeliness of the annual central government debt is about 9-11 months after the end of the reference year. This compares with the GDDS recommended practice to publish annual (quarterly encouraged) consolidated central government debt data within 1-2 quarters of the end of the reference period. The SDDS requirement is to publish quarterly data within one quarter of the reference period.

4.3 Consistency

4.3.1 Statistics are consistent or reconcilable over a reasonable period of time

Generally, divergences from expected trends in the fiscal time series are related to underlying fiscal policy or economic developments. These developments are outlined in the Minister of Finance's budget speech.

The methodology and statistical systems for government data have not changed significantly during the last 10 years, therefore discontinuities have not arisen from changes in methodology or statistical systems and therefore no breaks in time series have occurred.

4.3.2 Statistics are internally consistent (e.g., accounting identities observed)

Total revenue and grants minus total expenditure and lending minus repayments equal the overall surplus/deficit. This deficit is equal (and opposite in sign) to total financing.

As in other countries that follow the *GFSM 1986*, it is difficult to match the overall balance with changes in the debt stock.

In general, the MOF and CSO have identical coverage for the budgetary central government. Continued close coordination is required to ensure internal consistency in the budgetary central government statistics.

CSO data on domestic financing contains a residual for the discrepancy, but no annotation or footnotes to this effect accompanies the published data; however a line item for "adjustment" or "discrepancy" is clearly marked. As already indicated above, the residual has been small (0.04 percent of GDP). The discrepancy has been added to the domestic financing of the budgetary central government, although it is probably associated with the extra-budgetary units or social security agencies.

The detailed components add to the aggregates. (Net lending minus repayments could be explicitly included in the general government expenditure table.)

Only annual data are currently available. Monthly and quarterly data on budgetary central government operations compiled for internal purposes are not used explicitly to benchmark the annual data.

There are no revisions due to benchmarking.

Vertical consistency holds for all levels of government.

4.3.3 Statistics are consistent or reconcilable with those obtained through other data sources and/or statistical frameworks

Government data could possibly be reconciled with the national accounts, although this reconciliation would be difficult. The national accounts uses unaudited, higher frequency cash records from the Accountant-General's office.

Domestic financing data for the budgetary central government are obtained from the BOM records, including the stocks of Treasury bills and Mauritius Development Loan Stocks (MDLS) by debt holder and by instrument. The domestic financial flows are derived from these stocks. These derived flows are compared with aggregate domestic financing flows recorded by the Accountant-General. Discrepancies are added to other general government (in domestic financing by holder) and to long-term bonds for MDLS and short-term bonds and bills for Treasury bills (financing by instrument). In this way the two sets of data are made consistent.

GFS data on foreign debt, grants and financing transactions are taken from the Accountant-General's records. These records are reported quarterly to the BOM for their use in the compilation of the balance of payments and therefore the data are consistent. These records are on a cash basis.

4.4 Revision policy and practice

4.4.1 Revisions follow a regular, well-established, and transparent schedule

In general, data are not revised, however this revision policy and related notes are not made clear to the public. Revisions are limited to annual budgetary central government data and these are identified in the published statistics. The revised annual budgetary central government data follow the regular publication schedule of the budget.

4.4.2 Preliminary data are clearly identified

Not applicable. The revised annual budgetary central government data follow the same level of GFS detail in each budget. While the data are not used for policy determination and analysis, the coherence is strong because only one or two months of data are estimated.

4.4.3 Studies and analyses of revisions are made public

Not applicable.

5. Accessibility

5.1 Data accessibility

5.1.1 Statistics are presented in a way that facilitates proper interpretation and meaningful comparisons (layout and clarity of text, tables, and charts)

The government finance data are presented in a way which allows major aggregates and balancing items to be identified and related to detailed underlying data.

The CSO publication has a useful presentation that allows users to identify major aggregates and balancing items, and to decompose these aggregates into the detailed underlying data.

Within the limits of the data compiled under the *GFSM 1986* system, the data are suitable for budget development and monitoring processes in a macroeconomic context. However, while the budgetary central government data are presented with the rest of the budget, these data are not a central part of the budget process. Moreover, the CSO's GFS data are presented with such long lags, that they cannot be used as part of the budget process.

The publication provides the coverage and detail set out in the *GFSM 1986*.

5.1.2 Dissemination media and formats are adequate

A list of publications, including the dedicated GFS publication by the CSO is listed in the *Government Gazette* and on the CSO website. The annual cycle of the budget papers is well publicized.

The annual CSO *Digest of Public Finance Statistics 2000* and MOF *Recurrent Budget* publications contain the GFS and budgetary central government data, respectively.

There are no monthly or quarterly GFS at present.

The CSO and MOF websites contain some annual data, and hyperlinks to the GDDS metadata, including brief methodological descriptions posted by the IMF on the Dissemination Standards Bulletin Board (DSBB).

5.1.3 Statistics are released on a pre-announced schedule

There is no pre-announced schedule for the release of GFS. Specifically, there is no advance release calendar, nor a list of forthcoming publications bulletin. The schedule for the budget documents follows a legislatively mandated calendar.

5.1.4 Statistics are made available to all users at the same time

Published data are made available to all users simultaneously and without preferential treatment for selected users.

5.1.5 Non-published (but non-confidential) sub-aggregates are made available upon request

Non-confidential data are made available upon request; however the terms and conditions on which these data could be provided are not published in GFS publications. While there are not many instances of such requests, the CSO has assisted students and embassies with their research using GFS.

5.2 Metadata accessibility

5.2.1 Documentation on concepts, scope, classifications, basis of recording, data sources, and statistical techniques is available, and differences from international standards are annotated

Concepts, sources, and methods are documented briefly and revisions to these are published prior to, or at the same time, as the data they affect. Brief descriptions of concepts, sources, and methods are published at the same time as the data. Concepts, sources, and methods documentation also identifies differences from internationally accepted standards and provides candid description of coverage and compilation problems. There are no significant differences from internationally accepted *GFSM 1986* standards. However, no in depth description of compilation problems are included with the data (see 5.2.2).

A bridge table showing the links between source data and GFS is available, but has never been publicized. A derivation table is published concerning the budgetary central government data in the budget document.

5.2.2 Different levels of detail are provided depending on intended audience and type of collection

No detailed technical descriptions of concepts, sources, and methods, are published. Brief descriptions of concepts, sources, and methods are provided to general users in publications, along with the data.

5.3 Assistance to users

5.3.1 Contact person for each subject field is publicized

The contact persons for GFS in the MOF and CSO are publicized in the GDDS website for Mauritius's fiscal data. However, the contact persons and their phone numbers are not identified in the GFS publications.

While few users take advantage of CSO support on GFS, it appears that such assistance is provided quickly and reliably.

There are no provisions for the contact person to respond to the misuse of government finance data (see 1.1.3 above), although the Minister of Finance has responded publicly on occasion.

5.3.2 Catalogues of publications, documents, and other services, including information on any charges, are widely available

The *Government Gazette* contains a list of publicly available publications and related charges. The documents are available from the Government Printing Office, and sometimes the relevant ministry provides copies. A list of publications and some of the relevant data also are provided on the Internet.

IV. MONETARY STATISTICS

0. Prerequisites of quality

0.1 Legal and institutional environment

0.1.1 The responsibility for processing, and disseminating statistics is clearly specified.

The Bank of Mauritius (BOM) is responsible for compiling and disseminating monetary statistics. These data are compiled under the terms and conditions set out in the Bank of Mauritius Act (BOM Act) of 1966. The BOM Act governs the activities of the BOM, and provides in section 22B that the BOM may require from banks any information and data that may be needed for the proper discharge of its functions and responsibilities. In accordance with section 24 of the BOM Act, the BOM may extend its authority to require data and information to any credit institution other than an authorized bank. Furthermore, the BOM is empowered to examine the accounts, books, records and papers of any bank or credit institution to verify its compliance with any requirements relating to the provision of information and data.

While the BOM Act addresses the issue of the BOM's authority to collect data from banks and other credit institutions, its responsibility for compiling and disseminating monetary statistics is not clearly specified. In terms of section 45 of the BOM Act, the BOM is only obliged to compile and publish its monthly statement of assets and liabilities and report on its operations during each financial year.

The BOM compiles and disseminates in its *Monthly Statistical Bulletin* a monetary survey,²⁷ which is a consolidation of the accounts of the BOM and those of the ten commercial banks.

²⁷ The term "monetary survey" refers to the framework for presenting consolidated monetary statistics that the Fund recommended prior to the publication of the *Monetary and Financial Statistics Manual (MFSM)*. The "depository corporations survey" referred to in this report is the broader core framework recommended by the *MFSM*. The GDDS uses the term "broad money survey" for this framework.

In addition to the monthly monetary survey, the BOM publishes separate data on each of its components.

The monetary statistics are compiled by the BOM Research Department's Money and Banking Statistics Section. In the official publications of the BOM, however, there is no indication of the department that is officially responsible for the compilation and dissemination of the monetary statistics.

0.1.2 Data sharing and coordination among other data producing agencies are adequate.

Within the BOM there are adequate informal arrangements in place to ensure the smooth flow of information between the Research Department, the Supervision Department, the Accounting, Budgeting, and Payment System Department, the Financial Markets Department, and the Information Technology Department for the purpose of compiling monetary statistics. The BOM monthly balance sheets, along with more detailed schedules called the Certificate of Balances, are provided to the Research Department by the Accounting, Budgeting, and Payment System Department within one week after the end of the reference month. Commercial banks' monthly returns are reported directly to the Research Department, which shares them with the Supervision Department, while the monthly balance sheet reports of the non-bank financial institutions are provided with a lag of about three weeks to the Supervision Department, which shares them with the Research Department. Even though the Post Office Savings Bank (POSB) is not subject to formal reporting requirement, it regularly provides its monthly balance sheets to the Research Department within two weeks after the end of the reference month.

There are no specific arrangements in place for data sharing and coordination with other data producing agencies (CSO, Ministry of Finance)²⁸ and the current level of coordination appears to be inadequate. In particular, there are no uniform classification guidelines (such as a detailed list of units of government or a list of government accounts) to ensure consistency of classification in monetary statistics, national accounts, and government finance statistics. In this context, the mission noted that the National Pension Fund, which both in the national accounts and in government finance statistics is classified as a social security component of the general government sector, in monetary statistics is included in the financial corporations sector as a non-bank financial intermediary. The newly established Committee of the Statistics Advisory Council (SAC) on International Commitments will provide the forum to ensure coordination and harmonization among the data compiling agencies.

0.1.3 Respondents' data are to be kept confidential and used for statistical purposes only.

The BOM Act forbids publication by the BOM of any information that would disclose the financial affairs of any individual or enterprise without consent in writing (section 22B,

²⁸ There is, however, a Committee of Officials that comprises representatives of the Office of the Accountant General and the BOM, who meet each week to review the transactions and the cash flow of the government.

subsection (2)(b)). In addition, in terms of section 9, no official of the BOM may disclose any information relating to the affairs of the BOM or of any other bank or of a customer of the BOM or any other bank, except for the purpose of the performance of his duties or when lawfully required to do so.

Monetary statistics are produced mainly from balance sheet data provided by the commercial banks in the monthly returns. Only the staff of the Money and Banking Statistics Section and of the Supervision Department have access to data of individual banks before they are consolidated for publication in the *Monthly Statistical Bulletin*.

0.1.4 Statistical reporting is ensured either through legal mandate and/or measures implemented to encourage voluntary reporting.

The Banking Act of 1988 provides the legal basis for ensuring mandatory reporting for monetary statistics purposes. Section 24 of the Banking Act imposes an obligation on banks to provide to the central bank, not later than the fifteenth day of each month, their monthly statements of assets and liabilities in the format approved by the central bank, along with any additional information that the central bank may require. A failure to comply with this reporting requirement is considered an offence and is punishable by fines. A similar responsibility to provide information to the central bank has been imposed on non-bank deposit-taking financial institutions in section 13A; subsection 3, of the Banking Act.

These statutory provisions do not apply to the POSB, which is governed by the Post Office Act and is not legally required to provide data to the BOM. Although by an implicit agreement the POSB regularly provides its balance sheet data to the BOM, the latter does not have the authority to inspect its books and records and to demand additional information.

0.2 Resources

0.2.1 Staff, financial, and computing resources are commensurate with institutional programs.

The Money and Banking Statistics Section has a total of six staff, four of which are professionals (one senior research officer and three research officers) exclusively devoted to the compilation of monetary statistics. The research officers engaged in compiling monetary statistics are required to have a university degree in economics or statistics (at least a Bachelor's degree). The remaining two staff members are research assistants, with a primary responsibility for data processing. It is estimated that, on average, it takes at least one year of on-the-job training to gain sufficient knowledge and expertise to do the basic compilation work. All professional staff in the Money and Banking Statistics Section have at least five years of experience at the central bank, and adequate experience in the compilation of the monetary statistics. Current staffing is adequate for present needs. However, additional resources will be required when the BOM will have the authority on both the banking and the nonbank sector and will embark on the derivation of a Financial Corporations Survey.

Monetary statistics compilers are given the opportunity to participate in training courses offered at the South Africa Reserve Bank Training Institute, the Bank of England Center for Central Bank Studies, and the relevant courses offered by the IMF Institute. Two staff members have participated in IMF's Monetary and Financial Statistics training seminars in Abidjan in the last two years.

The computer resources utilized in the collection and compilation of monetary statistics are adequate. All staff members have personal computers that are connected to the BOM network.

0.2.2 Measures to ensure efficient use of resources are implemented.

In general, all programs in the BOM are subject to budget considerations and performance assessments. Two specific measures taken recently by the BOM to ensure efficient use of resources in compiling monetary statistics are the allocation of two research assistants to the Money and Banking Statistics Section and the introduction of electronic reporting by the commercial banks. The research assistants have taken over from the professional staff data processing and other technical tasks, thus freeing additional resources for analytical tasks. The shift to the electronic reporting, once completed in October, will eliminate the need for manual data entry at the Research Department.

0.3 Quality awareness

0.3.1 Processes are in place to focus on quality, to monitor the quality of the collection, processing, and dissemination of statistics, to acknowledge and deal with tradeoffs within quality, and to guide planning for existing and emerging needs.

The BOM recognizes that official statistics must have the confidence of their users and provides the infrastructure to exercise quality control at every stage of data production and dissemination. Thus, the Supervision Department verifies that data reporting practices followed by the commercial banks are consistent with the regulations issued under the Banking Act of 1988. The Research Department has systems and procedures in place to ensure quality in the compilation process and the research officers, Senior Research Officer, Assistant Director, and Director participate actively in the review of data prior to publication.

A number of advisory and oversight bodies have the authority to monitor the accuracy, timeliness, and coverage of monetary statistics. The Banking Committee, chaired by the Governor of the BOM, includes chief executives of all commercial banks. To facilitate improvements in monetary statistics, the Banking Committee established a technical committee on statistics, which is headed by the Director of the BOM's Research Department and includes two representatives from each commercial bank. The main task of the technical committee is to review the quality of the monetary data submitted to the BOM. The technical committee has focused initially on issues relating to the introduction of the electronic

reporting, but is to continue its work addressing other issues relevant to further development of monetary statistics.

Also, with the enactment of the Statistics Act 2000, a Statistics Advisory Council (SAC) has been established with the function to advise the government on a broad range of issues relating to statistical activities in Mauritius. These issues, in particular, include coordination and harmonization of statistical activities, the actual and perceived public confidence and trust in statistics produced in Mauritius, and the maintenance of independence, accuracy, relevance, integrity, timeliness, and professional standard of statistical information produced in Mauritius. The members of the SAC represent both the users and the producers of statistics. The Director of the Research Department represents the BOM in the SAC.

Within the BOM, the staff of the Research Department and the Supervision Department work closely together to establish priorities concerning the collection and compilation of the data; ensure the smooth flow of data within the BOM; and avoid duplication of effort. Within the Research Department, the Director, Assistant Director, Senior Research Officer, and the research officers of the Money and Banking Statistics Section monitor the quality of data closely.

There is wide recognition of the tradeoffs between data quality and timeliness. The production of monetary statistics is to a great extent automated through the use of linked worksheets. As a measure of quality control, data processing includes a series of built-in checks and validations at every stage of the production cycle. As a result of these processes, it has been possible to adhere to a strict publication schedule, while maintaining the quality of the data. Monetary statistics are rarely subject to revisions.

The Research Department and the Supervision Department work closely to improve the methodological soundness of the data to take into account new initiatives and developments in the financial system. The report forms used by commercial banks are revised regularly to reflect, for example, institutional changes and new financial instruments. Revised report forms, with improved sectoral classification of accounts, were introduced in July 2001. Following the publication of the *MFSM*, there is an ongoing project in the BOM to revise the methodology and data collection and compilation procedures and practices to ensure the consistency of the monetary statistics compiled by the BOM with the new standard.

1. Integrity

1.1 Professionalism

1.1.1 Statistics are compiled on an impartial basis.

The statutory provisions under which the BOM compiles monetary statistics are adequate to support its independence in conducting these functions. In accordance with section 19 of the BOM Act, the Minister responsible for financial matters may give the BOM general directions that he considers necessary in the public interest and require the bank to provide

information for that purpose; this authority is meant to apply to national financial matters. In the budget speech of 2001, the government announced its intention to strengthen further the independence of the BOM. Accordingly, the BOM can perform its statistical functions independently without fear, favor or prejudice. Commercial banks are required by the Banking Act of 1988 to supply information to the BOM, which determines the coverage, content of reported information, and the methodological framework for reporting these data.

Professionalism of the staff in charge of compilation of monetary statistics is promoted by encouraging participation in lectures, conferences, seminars, and training courses, including those organized by the IMF.

1.1.2 Choices of sources and statistical techniques are informed solely by statistical considerations.

The methodological framework used by the BOM to compile monetary statistics is based on the IMF's draft *Guide to Money and Banking Statistics in International Financial Statistics* of December 1984. Following the publication of the IMF's *Monetary and Financial Statistics Manual (MFSM)*, the BOM intends to apply fully its recommendations, including the coverage of the accounts of all depository corporations and the standard classification of resident sectors and financial instruments. To this end, appropriate report forms (returns) will be developed to collect disaggregated information from the accounting records of those financial corporations whose liabilities are included in the national definition of broad money.

1.1.3 The appropriate statistical entity is entitled to comment on erroneous interpretation and misuse of statistics.

The Research Department comments on misinterpretations of its statistics if deemed truly significant. The Research Department seeks to prevent misinterpretation or misuse of monetary statistics by providing explanatory materials and notes.

1.2 Transparency

1.2.1 The terms and conditions under which statistics are collected, processed, and disseminated are available to the public.

The BOM Act and the Banking Act, as well as other relevant documents, are available at the BOM's website.

1.2.2 Internal governmental access to statistics prior to their release is publicly identified.

Following approval of the data by the Research Department, the monetary survey is provided to the management of the BOM. No officials outside the BOM have access to the data before their release to the public. No information on internal access to data prior to their release is available to the public.

1.2.3 Products of statistical agencies/units are clearly identified as such.

The BOM is identified as the source of the monetary statistics, but there is no indication in the *Monthly Statistical Bulletin* of the primary responsibility of the Research Department for compiling these statistics.

1.2.4 Advance notice is given of major changes in methodology, source data, and statistical techniques.

Major changes in methodology, such as those resulting from the implementation of the *MFSM*, will be announced to the public in the BOM's *Monthly Statistical Bulletin* prior to their implementation. A full explanation will be provided at the time of the implementation.

1.3 Ethical standards

1.3.1 Guidelines for staff behavior are clear and publicized.

The BOM Act provides broad ethical guidelines for employees of the BOM. In terms of section 9 of the Act, no Director or employee of the BOM is allowed to disclose any information acquired in performance of his duties or the exercise of his functions relating to the affairs of the BOM and its customers, or of any other bank or its customers. In addition, the staff of the BOM are bound by the code of conduct as documented in the "Conditions of Service" and "Discipline and Disciplinary Procedures" that are provided to each staff member at the commencement of employment. These internal documents instruct the staff, in particular, to observe secrecy regarding the information acquired in the course of duty, not to allow any unauthorized access to books and papers belonging to the Bank, and not to engage in public discussion of the BOM's affairs or policy without the permission of the Managing Director.

2. Methodological soundness

2.1 Concepts and definitions

2.1.1 The overall structure in terms of concepts and definitions follows international standards, guidelines, or agreed practices.

The analytical framework used for compiling monetary statistics reflects concepts and definitions that are, in general, based on the IMF's draft *Guide to Money and Banking Statistics in International Financial Statistics* of December 1984. A monetary survey is compiled on a monthly basis as a consolidation of the accounts of the BOM and ten commercial banks. The main monetary aggregates identified in the monetary survey are (i) money supply M1, comprising currency outside banks and demand deposits, (ii) quasi-money, comprising savings deposits, time deposits, and foreign currency deposits, and (iii) aggregate monetary resources M2 (broad money), which is a sum of M1 and quasi-money. Other aggregates identified in the monetary survey are (i) foreign assets (net),

(ii) domestic credit, disaggregated by claims on public sector, claims on private sector, claims on bank-like institutions (offshore banks), and credit to non-bank financial institutions, and (iii) other items (net).

Following the publication in September 2000 of the *MFSM*, the BOM intends to revise its procedures and formats for collection, compilation, and dissemination of monetary statistics. This section compares present data compilation practices with those recommended in the *MFSM*. Hence, it indicates areas where the BOM has yet to make changes to comply with the new methodological standard.

2.2 Scope

2.2.1 The scope is broadly consistent with international standards, guidelines, or agreed practices.

The financial corporations sector of Mauritius comprises the BOM (the central bank), ten commercial banks, the POSB, the Development Bank of Mauritius (DBM), eleven offshore banks, ten non-bank deposit-taking financial institutions, the Mauritius Housing Corporation, three money-changers, three foreign exchange dealers, as well as mutual funds, investment companies, insurance and re-insurance companies, asset management companies, a venture capital fund, and other providers of financial services.²⁹ The BOM, the commercial banks, the POSB, and the non-bank deposit-taking financial institutions issue the types of financial instruments that are included in the national definition of broad money. Therefore, these financial corporations should be included in the depository corporations subsector. Given that offshore banks can have foreign currency deposits of residents, these banks should also be classified as depository corporations. The DBM does not issue financial instruments that are included in the national definition of broad money and, therefore, should be classified in the other financial intermediaries subsector rather than as a depository corporation.

In accordance with the *MFSM*, the major framework for compiling monetary statistics is the Depository Corporations Survey (DCS), which consolidates the accounts of the central bank with those of all other depository corporations (issuers of liabilities that are included in the national definition of broad money). Thus, the scope of the monetary statistics compiled by the BOM, which consolidates the accounts of the BOM and those of the commercial banks, is incomplete and not consistent with the standard recommended in the *MFSM*, as it does not include the accounts of the POSB, the nonbank deposit-taking financial institutions, and the offshore banks.

²⁹ The newly established Financial Services Commission should also be classified within the financial corporations sector as a financial auxiliary.

2.3 Classification/sectorization

2.3.1 Classification/sectorization systems used are broadly consistent with international standards, guidelines, or agreed practices.

The principles of sectorization applied in the monetary statistics compiled by the BOM are not fully consistent with the IMF's *MFSM*, which recommends distinguishing between resident and nonresident units on the basis of the concept of "center of economic interest" and classifying resident institutional units into domestic sectors according to their objectives, functions, and economic behavior. The sectoral classification adopted in the *MFSM* is based on the 1993 *SNA* that distinguishes five mutually exclusive domestic sectors: (i) financial corporations; (ii) nonfinancial corporations; (iii) general government; (iv) households; and (v) nonprofit institutions serving households (NPISHs). The first three sectors are further disaggregated into subsectors. The sectoral classification of resident units recommended in the *MFSM* for the purpose of compiling monetary statistics refers mainly to the subsectors distinguished in the 1993 *SNA* and is as follows: (i) central bank; (ii) other depository corporations; (iii) other financial corporations; (iv) central government; (v) state and local government; (vi) public nonfinancial corporations; (vii) other nonfinancial corporations; and (viii) other resident sectors.

In the monetary statistics compiled by the BOM, the following sectoral groupings of resident institutional units are distinguished: (i) central bank; (ii) banks in Mauritius (commercial banks); (iii) other bank-like institutions (offshore banks); (iv) nonbank financial institutions; (v) central government; and (vi) private sector. The last combines components of the general government sector (local government), financial corporations sector (insurance companies, and other nondepository financial corporations), nonfinancial corporations sector (public and private), and households and NPISHs. The POSB is included in central government accounts rather than in the "banks in Mauritius" category. A recent revision of the report forms for commercial banks introduces a new sectoral grouping "Statutory and parastatal bodies", which combines the accounts of nonfinancial public corporations and local governments. Even with this recent refinement, the sectoral classification applied in the monetary statistics produced by the BOM does not comply with the guidelines of the *MFSM*.

The distinction of nonresident units is based in principle on the concept of the center of economic interest; however, deposits of international organizations (including the IMF) are incorporated in the monetary survey in other items (net) rather than in net foreign assets. Until recently, deposits of nonresidents in commercial banks were not separately identified and were included in the monetary aggregates rather than in net foreign assets. However, in the new report forms for commercial banks that were introduced in July 2001, a provision was made for separate identification of the deposits of nonresidents, both in domestic and foreign currency. In practice, deposits of nonresidents in commercial banks are believed to be insignificant, as nonresidents hold deposits in offshore banks.

The principles underlying the classification of financial instruments are based on international standards and, notwithstanding differences in terminology used, are generally

consistent with the Fund's statistical methodology as described in the *MFSM*. The classification framework is based on the liquidity of the financial instruments and the legal characteristics that describe the form of the underlying creditor/debtor relationship. However, the classification of financial instruments is less detailed than that required by the *MFSM* standard.

Financial derivatives are not identified in the returns submitted by commercial banks. Contrary to the recommendations of the *MFSM*, foreign exchange swaps are recorded only as outright sale/purchase of foreign exchange. Asset/liability positions resulting from the commitment to a forward purchase/sale of the same currencies are not included in the monetary statistics.

Assets sold under repurchase agreements are treated as collateralized loans. This treatment of securities repurchase operations is consistent with the recommendations of the *MFSM*.

2.4 Basis for recording

2.4.1 Market prices are used to value flows and stocks.

The general recommendation of the *MFSM* is that the valuation of financial assets and liabilities should be based on market prices or, for financial assets and liabilities that are not traded or traded infrequently, on market-price equivalents (fair values). The valuation of loans is an exception to this principle, and loan values should be based on creditors' outstanding claims without adjustment for expected loan losses. This amount comprises the outstanding principal plus any accrued interest and is referred to as the book value of a loan.

Valuation principles used in the monetary statistics compiled by the BOM are not consistent with these recommendations. Domestic and foreign securities are generally valued at purchase price (acquisition cost) and are not revalued through redemption. Loans are recorded at the nominal value of the outstanding principal and do not include accrued interest. In line with the practice recommended in the *MFSM*, loan valuation is not adjusted for expected loan losses. General and specific provisions for loan losses are recorded in other liabilities and are not netted out from the outstanding principal.

The *1993 SNA* and the *MFSM* recommend that financial instruments denominated in foreign currency should be converted into national currency values at the mid-point market exchange rate prevailing at the balance sheet date or, for transactions, at the transaction date. In the monetary statistics compiled by the BOM, the conversion of foreign currency denominated assets and liabilities is based on the end-of-period BOM central rate, which is calculated daily as an average of the opening mid-point rates at the interbank foreign exchange market. The only exception applies to the IMF deposits with the BOM that are recorded in national currency on the basis of the rupee/SDRs exchange rate that is determined by the IMF Treasurers Department once a year (so called IMF holding rate).

2.4.2 Recording is done on an accrual basis.

In accordance with the accrual accounting principles recommended by *MFSM*, interest accruing on deposits, loans, and securities other than shares should be incorporated into the outstanding amount of the financial asset or liability, rather than being treated as part of other accounts receivable/payable. This principle is not observed in the Mauritian monetary statistics. The BOM accounting records are kept on a mix of a cash and an accrual basis; however, in the monetary statistics any accrued receivables or payables are included in other assets or other liabilities, as appropriate, and are not incorporated in the value of the underlying instrument. In the commercial banks' reporting, current report forms do not allow for the allocation of accrued interest to specific instruments and for the classification of accrued interest by sector. Similarly as in the case of the BOM accounts, any interest accruals are classified in other assets/other liabilities, as appropriate, rather than being included in the value of the underlying asset/liability. As a result, in the monetary survey compiled by the BOM interest accruals are included in the Other Items (Net) category, and all money and credit aggregates are recorded on a cash basis.

The *MFSM* recommends recording of transactions at the time of the change in ownership of the financial asset. This principle requires simultaneous recording of transactions by the transactors. Following the introduction in December 2000 of the Mauritius Automated Clearing and Settlement System (MACSS), this principle appears to be fully implemented in the Mauritian monetary statistics. The MACSS is a Real Time Gross Settlement System, in which all commercial banks are connected to the BOM via a computer network used to exchange payments almost instantaneously.

2.4.3 Grossing/netting procedures are broadly consistent with international standards, guidelines, or agreed practices.

The general guideline of the *MFSM* and the 1993 SNA that data should be collected and compiled on a gross basis is applied in the compilation of Mauritian monetary statistics. Assets and liabilities of the commercial banks are reported on a gross basis in their monthly returns and are aggregated into a statement of assets and liabilities without consolidating interbank positions. Similarly, the central bank accounts are compiled and disseminated on a gross basis. Reciprocal asset/liability positions between the BOM and the commercial banks are separately identified. However, in commercial banks' accounts, only their liabilities to each other are separately identified. Reciprocal claims among commercial banks are indistinguishably included in other (unclassified) assets. Consistent with the standard recommended in the *MFSM*, netting and consolidation adjustments are made only in presenting the analytical survey (the monetary survey).

3. Accuracy and reliability

3.1 Source data

3.1.1 Source data are collected from comprehensive data collection programs that take into account country-specific conditions.

The source data for compiling the central bank accounts are the accounting records (balance sheet) of the BOM prepared by the Accounting, Budgeting, and Payment System Department of the BOM. These reports are generated from an electronic general ledger system based on complete reporting. Source transactions are captured and the reports are generated from a predetermined classification of each account. The balance sheet is presented in various levels of detail for various purposes and user groups. For the purpose of compiling monetary statistics, the BOM balance sheet is augmented by detailed schedules (Certificates of Balances).

The basic data sources for the commercial banks are the individual monthly returns called Statement of Liabilities and Assets. Items in these returns are derived from the accounting records of the commercial banks. In addition to the Statement of Liabilities and Assets, commercial banks report detailed breakdown by activity (industry) of claims on private sector in a form called Sectorwise Distribution of Credit to the Private Sector.

3.1.2 Source data reasonably approximate the definitions, scope, classifications, valuation, and timing of recording required.

The reports provided by the commercial banks cover a complete set of balance sheet positions. In addition, data on off-balance sheet contingent items are collected and disseminated as memorandum items. There is an ongoing effort at the BOM to use data sources that reasonably approximate the definitions, scope, classifications, time of recording, and valuation required to compile sound monetary statistics. To this end, the structure of the report form for commercial banks is revised periodically. The current report form was introduced in July 2001 and provides for improved sectoral classification and more precise delineation of the deposits of nonresidents.

Nevertheless, the Research Department recognizes that the current reporting framework does not conform adequately to the new international standard (*MFSM*) with regard to the definitions, scope, classification, valuation, and the basis of recording. Complete redesigning of the data reporting formats is an integral part of the BOM's medium-term plan for implementing the guidelines of the *MFSM*.

3.1.3 Source data are timely.

The data collection system allows sufficient time for the compilation of monetary statistics. The accounting records of the BOM are provided to the Research Department within a week after the end of the month for purposes of monetary data compilation. The returns of the commercial banks are at present submitted in a hard copy by the 8th calendar day after the end of the month. Electronic reporting is being introduced and should be fully in place by October 2001.

The reports of the nonbank deposit taking institutions are submitted to the Supervision Department within three weeks of the end of the reference month. Once the scope of monetary statistics is expanded to include these institutions, an effort will need to be made to improve the timeliness of their reporting in line with those of the commercial banks. The POSB provides its balance sheet data to the BOM with a lag of two weeks after the end of the reference month.

3.2 Statistical techniques

3.2.1 Data compilation employs sound statistical techniques.

The statistical techniques used to compile monetary statistics are to a great extent automated and minimize processing time and errors (e.g., coding, editing, and tabulating errors). A further step in this direction will be made with the completion of the shift to electronic reporting by October 2001.

The data received from commercial banks are verified using built-in consistency checks. There is no documentation of data management procedures in user-manuals available for internal use, but the comments feature is used in Excel spreadsheets to explain details of data processing.

3.2.2 Other statistical procedures (e.g., data adjustments and transformations, and statistical analysis) employ sound statistical techniques.

The Research Department does not calculate seasonally adjusted monetary data and does not make any other statistical adjustments to monetary statistics.

3.3 Assessment and validation

3.3.1 Source data—including censuses, sample surveys and administrative records—are routinely assessed, e.g., for coverage, sample error, response error, and non-sampling error; the results of the assessments are monitored and made available to guide planning.

The quality of the monetary statistics is monitored throughout the compilation process, which is to a great extent automated. The source data from the commercial banks are subject to a number of built-in internal consistency checks and validation routines. Any inconsistencies and unexplained large data variations are investigated with the reporting bank.

3.3.2 Main intermediate results are validated against other information where applicable.

The accuracy of the monthly balance sheets reports submitted by the commercial banks is cross-checked against information provided by them to the BOM on a weekly basis. The Money and Banking Statistics Section reviews the data and discusses any questionable data directly with the bank concerned.

3.3.3 Statistical discrepancies and other potential indicators of problems in statistical outputs are investigated and made available to guide users.

Large changes in monetary or credit aggregates are very rare, and likely to occur only in the event of a significant change in the methodology. The procedures for ensuring internal and intertemporal consistency that are built in the data processing and compilation system provide adequate safeguards against unexplained fluctuations and large distortions in monetary statistics. In the preparation for the implementation of the methodological standards recommended in the *MFSM*, the BOM intends to provide sufficient advance notice and explanations to the users of monetary statistics. Any inquiries from data users are handled directly by the staff of the Money and Banking Statistics Section.

3.4 Revision studies

3.4.1 Studies and analyses of revisions are carried out routinely and used to inform statistical processes.

Monetary statistics are rarely subject to revisions. Nevertheless, any revisions of data reported by the commercial banks are analyzed and, if necessary, additional instructions and clarifications are provided by the BOM to ensure consistency of reporting by all respondents.

3.4.2 Revision studies and analyses are made public and used to guide data users.

Given the sporadic nature of revisions to monetary data, no formal revision studies and analyses are prepared and made available to the public.

4. Serviceability

4.1 Relevance

4.1.1 Processes to monitor the relevance and practical utility of existing statistics in meeting users' needs are in place.

The BOM conducts regular reviews to assess whether monetary statistics meet the needs of policymakers and other data users. Senior staff participate in users' fora, including international statistical meetings and seminars organized by international and regional organizations.

Money and banking statistics compilers are aware of developments in the financial markets, including the introduction of new instruments and institutions, and work toward incorporating these changes in the monetary statistics.

4.2 Timeliness and periodicity

4.2.1 Periodicity follows dissemination standards.

Monetary statistics comply fully with the periodicity guidelines of the GDDS, which recommends dissemination of monthly data on the analytical accounts of the central bank and the analytical accounts of the banking sector. (Monthly periodicity also is required in the SDDS.) These data are released to the public in the BOM's publications and on the Internet.

4.2.2 Timeliness follows dissemination standards.

The GDDS recommends dissemination of data on the analytical accounts of the central bank within 1-2 months of the end of the reference month (two weeks in the SDDS), and on the analytical accounts of the banking sector within 1-3 months of the end of the reference month (one month in the SDDS). The BOM complies with these guidelines, as all monetary statistics are released simultaneously on the Internet and in the *Monthly Statistical Bulletin* within seven weeks after the end of the reference month.

4.3 Consistency

4.3.1 Statistics are consistent or reconcilable over a reasonable period of time.

The monetary statistics database of Mauritius is maintained by the Research Department in Excel spreadsheets. The database starts in 1976 (monthly) and the coverage of the time series has evolved over time to reflect changes in the financial system. Monthly time series are published in the *Monthly Statistical Bulletin* for the most recent 24 months, and on a quarterly basis for the preceding six quarters.

4.3.2 Statistics are internally consistent.

The data on reciprocal claims and liabilities of the BOM and the commercial banks are fully consistent. The Research Department applies several internal consistency checks including reconciliation of available stock and flow data. Statistics for the entire financial corporations sector and the flow of funds accounts are not compiled in Mauritius.

4.3.3 Statistics are consistent or reconcilable with those obtained through other data sources and/or statistical frameworks.

Monetary statistics are generally consistent with other statistical systems. Change in net credit to government in the monetary data is consistent with the corresponding domestic bank financing data recorded in the government finance statistics. The Research Department compiles balance of payments statistics for Mauritius and the consistency with the monetary statistics is ensured at the data compilation stage.

4.4 Revision policy and practice

4.4.1 Revisions follow a regular, well established, and transparent schedule.

Monetary statistics are considered final when first publicly released and are not subject to regular revisions based on a pre-established schedule. In practice, revisions are rare and insignificant.

4.4.2 Preliminary data are clearly identified.

Monetary data are final when first released to the public. Since it is highly unlikely that data will be revised, BOM's publications do not include notes on the status of the data (preliminary or final). Data users treat them as final. However, the *Monthly Statistical Bulletin* contains data for a 24-month period and any revisions to that range of dates would be published in the following issue of the *Bulletin*.

4.4.3 Studies and analyses of revisions are carried out routinely and made public.

Final data used in the calculation of monetary and credit aggregates are usually not subject to revision and these aggregates are consequently not revised on a routine basis.

5. Accessibility

5.1 Data accessibility

5.1.1 Statistics are presented in a way that facilitates proper interpretation and meaningful comparisons (layout and clarity of text, tables, and charts).

The presentation of monetary statistics by the BOM facilitates the interpretation of the data by the users. The central bank and the commercial bank accounts are presented in a balance sheet format. The format of the monetary survey follows the framework recommended in the IMF's *Guide to Money and Banking Statistics in the International Financial Statistics*.

5.1.2 Dissemination media and formats are adequate.

Monetary data are disseminated in hardcopy and in electronic formats to meet the needs of data users. The entire *Monthly Statistical Bulletin* is posted on the BOM's website.

5.1.3 Statistics are released on a pre-announced schedule.

There is no publicly announced advance release calendar for the *Monthly Statistical Bulletin*, but the Research Department strictly follows an internal publication schedule, according to which the *Bulletin* is to be published on the 20th day of each month. The users are aware of this schedule and expect the publication of the *Bulletin* on this date.

5.1.4 Statistics are made available to all users at the same time.

The BOM has procedures in place to ensure that the data are released simultaneously to all users. At present, the publication of the *Monthly Statistical Bulletin* and the posting of monetary data on the Internet are at present simultaneous.

5.1.5 Nonpublished (but non-confidential) sub-aggregates are made available upon request.

Nonpublished (but nonconfidential) data are made available upon request from the Research Department. The department rarely receives user requests for historical and non-published data.

5.2 Metadata accessibility

5.2.1 Documentation on concepts, scope, classification, basis for recording, data sources, and statistical techniques is available, and differences from international standards are annotated

A brief statement of the methodology underlying the compilation of the monetary survey has been recently posted on the BOM website and was published in three consecutive issues of the *Monthly Statistical Bulletin*. A comprehensive description of the scope and methodology currently followed in the compilation of monetary statistics is not available to the public in national publications. However, the BOM website provides a built-in hyperlinks to the GDDS metadata posted by the IMF on the Dissemination Standards Bulletin Board.

5.2.2 Different levels of detail are provided depending on intended audience and type of collection.

The detailed database maintained by the Money and Banking Statistics Section is not available to users outside the section. Requests for data from users inside and outside the central bank must be addressed to the Research Department and are considered on a case-by-case basis.

5.3 Assistance to users

5.3.1 Contact person for each subject field is publicized.

Assistance to internal users is provided by compilers of monetary statistics mainly through informal processes and personal contacts. External users' queries are directed within the BOM to the Money and Banking Statistics Section of the Research Department.

5.3.2 Catalogues of publications, documents, and other services, including information on any changes, are widely available.

The *Monthly Statistical Bulletin* is distributed free of charge to a wide range of users, including government agencies, banks and other financial institutions, colleges, libraries, etc. At the BOM, there is a Communications Officer who handles all individual requests for data and information.

V. BALANCE OF PAYMENTS STATISTICS

0. Prerequisites of quality

0.1 *Legal and institutional environment*

0.1.1 The responsibility for collecting, processing, and disseminating statistics is clearly specified.

The BOM is responsible for compiling and disseminating the balance of payments statistics. Although the BOM Act of 1966 does not specify the authority and responsibility of the BOM to compile these data, the BOM has compiled and disseminated the balance of payments statistics since its establishment in 1967, shortly before Mauritius became independent.

The balance of payments statistics are compiled by the Balance of Payments Section of the BOM's Research Department. However, in the official publications of the BOM there is no indication of the agency or department that is officially responsible for the compilation and dissemination of these statistics.

0.1.2 Data sharing and coordination among data-producing agencies are adequate

Data sharing and coordination among the data producing agencies are adequate. Within the BOM there are informal arrangements in place to ensure the smooth flow of information needed to compile the balance of payments statistics between the Research Department, the Supervision Department, the Accounting, Budgeting, and Payment System Department, and the Information Technology Department. Arrangements are also in place for data sharing and coordination with the other data-producing agencies that provide data for input into the balance of payments statistics, such as the CSO for data on trade in goods, the MOF for data on public sector external debt transactions, and the Accountant-General for data on current and capital transfers of government.

A Technical Committee, chaired by Director of the BOM Research Department and with representatives from the BOM departments and each of the ten commercial banks, has recently been established with the mandate to review the quality of the data submitted to the BOM, including the bank records that are a major data source for the balance of payments statistics. This committee had input into the recent improvements made by the BOM to the bank reporting form. (See also 3.1.2, Source data, below.)

The GDDS Coordination Committee, on which the BOM and all relevant data-compiling agencies are represented, has the responsibility for coordinating the work of the various data-

compiling agencies on completing the plans for improvement indicated in the GDDS metadata of Mauritius.

In addition, the recently established SAC, a group comprising both data-compiling agencies and users that has recently been established under the Statistics Act 2000, has the authority to comment on issues, such as data sharing and coordination, that may hinder the dissemination of timely, high-quality macroeconomic statistics. (See 0.3, Quality Awareness, below for more information on the activities of this Council.)

0.1.3 Respondents' data are to be kept confidential and used for statistical purposes only.

The BOM Act provides for the confidentiality of the source data. Section 22B, subsection (2)(b) forbids publication by the BOM of any information that would disclose the financial affairs of any individual or enterprise without their consent in writing. In addition, Section 9 specifies that no official of the BOM may disclose any information relating to the affairs of the BOM, or any other bank or of a customer of the BOM or any other bank, except for the purpose of the performance of his duties or when lawfully required to do so.

The BOM has recently begun to indicate the confidentiality of the source data in the cover letters attached to the monthly bank reporting form, and quarterly enterprise surveys. These cover letters also indicate the purpose for which the requested data will be used.

Procedures are in place to ensure that the data are kept confidential. Only the staff of the Balance of Payments Section of the Research Department have access to the bank reporting forms, and the responses to the enterprise surveys. In addition, the electronic files in which the balance of payments statistics are compiled are password-protected and accessible only by staff of the Balance of Payments Section, and all source documents received in hardcopy are kept in locked filing cabinets within the section.

0.1.4 Statistical reporting is ensured through legal mandate and/or measures implemented to encourage voluntary response.

The Banking Act of 1988 provides the legal basis for mandatory reporting of data to the BOM by banks. Section 24 of the Banking Act imposes an obligation on banks to provide to the central bank, not later than the fifteenth day of each month, their monthly statements of assets and liabilities in the format approved by the central bank, along with any additional information that the central bank may require. A failure to comply with this reporting requirement is considered an offence and is punishable by fines. A similar responsibility to provide information to the central bank has been imposed on nonbank deposit-taking financial institutions in section 13A; subsection 3, of the Banking Act.

The Banking Act and the BOM Act do not specify mandatory reporting of data to the BOM by entities other than banks and nonbank deposit-taking financial institutions. This lack of clear authority to request data from all entities for balance of payments purposes has created problems in the past in obtaining timely data from, for example, enterprise surveys. Constant

follow-up and reminders to non-respondents are made in an effort to obtain the necessary data, but these efforts are not always successful. Amendments to the BOM Act planned for the 2001/2002 fiscal year to clearly indicate the authority and responsibility of the BOM to collect data from any entity for balance of payments purposes are expected to resolve these problems.

0.2 Resources

0.2.1 Staff, financial, and computing resources are commensurate with institutional programs.

The Balance of Payments Section has a total of four staff assigned to the compilation of the balance of payments statistics—three university-trained professionals (one Senior Research Officer and two Research Officers), and one Research Assistant responsible for data processing. All professional staff in the Balance of Payments Section have at least between one and five years of experience at the BOM, and two have had at least five years experience in the Balance of Payments Section.

Staff are given the opportunity to participate in training courses offered at the South African Reserve Bank Training Institute, and relevant courses offered by the IMF Institute. Two of the Research Officers have attended IMF regional balance of payments courses in the past few years, and one has attended an IMF-sponsored seminar on external debt.

The staff resources are considered to be adequate for present compilation practices. However, additional resources may be required if the BOM is to address the gaps in the coverage, data sources, and classifications identified in elements 2.2, 2.3, and 3.1, below.

The computer resources allocated for the collection and compilation of the balance of payments statistics are adequate. All staff members have personal computers that are connected to the BOM network. In addition, the staff of the Balance of Payments Section have access to the balance of payments compilation files through a password-system.

0.2.2 Measures to ensure efficient use of resources are implemented.

In general, all programs in the BOM are subject to budget considerations and performance assessments. The recent introduction of electronic reporting of the bank reporting forms and the assignment of a Research Assistant to take over the responsibility for data processing and other technical tasks, are two examples of how the resources of the professional staff have been freed for analytical tasks. (See 3.2.1 below for more information on the electronic reporting and balance of payments compilation process.) An internal BOM committee, the Monetary Management and Financial Markets Committee, which comprises the Governor, Managing Director, the two advisors to the Governor, Directors and Assistant Heads of all departments, meets on a daily basis to look at issues, such as those affecting monetary and balance of payments statistics. These meetings have resulted in the more efficient use of

resources, such as identifying instances where several databases were being maintained for the same information and replacing these with a single shared database.

0.3 Quality awareness

0.3.1 Processes are in place to focus on quality, to monitor the quality of the collection, processing, and dissemination of statistics, to acknowledge and deal with tradeoffs within quality, and to guide planning for existing and emerging needs.

The BOM recognizes that official statistics must have the confidence of their users and provides the infrastructure to exercise quality control at every stage of the data compilation and dissemination. The Research Department has systems and procedures in place to ensure quality in the compilation process and Research Officers and Managers participate actively in the review of the balance of payments statistics prior to publication. (See also 3.3.3 and 4.3.3 below for more information on the quality control checks undertaken.)

The Technical Committee referred to above will be the forum for reviewing the success of the recent consultative/educational campaign undertaken by the BOM prior to the introduction of the new bank reporting form used for the balance of payments—success will be measured in terms of improved quality of the reported data. (See 3.1.2 below for more information on this campaign.)

The Monetary Management and Financial Markets Committee also reviews quality issues and provides guidance on existing and emerging needs. For example, this committee recently raised the issue of the need for improved data on private sector external debt. The Technical Committee will be the forum for implementing the work on expanding the coverage and detail of the data collected and improving the quality of the external debt data. (The stock data presently compiled by the BOM on private sector external debt are compiled using the “perpetual inventory” system—stock data that were obtained prior to the abolition of exchange controls in June 1994 are used as the starting point, and transactions since that date are added and subtracted to obtain the present stock data. No adjustments are made for valuation changes etc.)

In addition, the SAC has the function of advising the government on a broad range of issues relating to statistical activities in Mauritius. These issues, in particular, include coordination and harmonization of statistical activities, the actual and perceived public confidence and trust in statistics produced in Mauritius, and the maintenance of independence, accuracy, relevance, integrity, timeliness, and professional standards for statistical information produced in Mauritius.

1. Integrity

1.1 Professionalism

1.1.1 Statistics are compiled on an impartial basis.

The BOM demonstrates strong professional independence when compiling the balance of payments statistics. Although Section 19 of the BOM Act specifies that the Minister responsible for financial matters may give the BOM general directions that he considers necessary in the public interest and may require the bank to provide information necessary for that purpose, this authority is intended to apply only to national financial matters. In the budget speech of 2001, the government announced its intention to strengthen further the independence of the BOM.

The BOM is not required to submit the balance of payments statistics to any civil servants or Ministers for approval prior to their publication, and the decision to publish is made entirely within the BOM. Responsibility for, and decisions about, the methodology to be used to compile the balance of payments statistics lie entirely within the Research Department of the BOM.

Professionalism of the staff in charge of compilation of the balance of payments statistics is actively promoted by encouraging participation in lectures, conferences, seminars, and training courses, including those organized by the IMF, such as the recent seminars on external debt and the Coordinated Portfolio Investment Survey.

1.1.2 Choices of sources and statistical techniques are informed solely by statistical considerations.

Decisions about the choice of data sources and statistical techniques are made solely on the basis of statistical considerations.

1.1.3 The appropriate statistical entity is entitled to comment on erroneous interpretation and misuse of statistics.

The BOM is entitled to comment on erroneous interpretation and misuse of the balance of payments statistics, but rarely exercises this right. Instances where the data have been misinterpreted in the media, such as confusion between the trade balance and the Current Account balance, are brought to the attention of the Governor at meetings of the Monetary Management and Financial Markets Committee. An issue that is planned to be discussed at future meetings of the SAC is the possibility of using that council as a platform for educational programs to improve the analysis by users of macroeconomic statistics, including the balance of payments statistics.

1.2 Transparency

1.2.1 The terms and conditions under which statistics are collected, processed, and disseminated are available to the public.

The BOM Act is disseminated on the BOM website (<http://bom.intnet.mu>). In addition, the terms and conditions under which the balance of payments statistics are compiled are shown in the GDDS metadata on the DSBB, to which the BOM website is hyperlinked.

1.2.2 Internal government access to statistics prior to their release is publicly identified.

Selected data that comprise elements of the balance of payments statistics are made available to other data-compiling agencies, such as the MOF and the CSO for their data compilation needs, prior to the release of the balance of payments statistics to the public. The public is not informed of this prior access.

1.2.3 Products of statistical agencies/units are clearly identified as such.

The Research Department is not identified in the BOM's *Monthly Statistical Bulletin (MSB)* and the *Annual Report* as being the unit responsible for compiling the balance of payments statistics.

1.2.4 Advance notice is given of major changes in methodology, source data, and statistical techniques.

Advance notice is not given of major changes in methodology, source data, and statistical techniques. At the time of the change to the methodology set out in the fifth edition of the *Balance of Payments Manual (BPM5)* in 1995, the public was informed of the changes at the time the data were published. The public has not been informed of other changes introduced since that date. (Sec 4.3.1 below for more information on such an instance.)

1.3 Ethical standards

1.3.1 Guidelines for staff behavior are clear and publicized.

The BOM Act provides broad ethical guidelines for employees of the BOM. Section 9 of the Act specifies that no Director or employee of the BOM is permitted to disclose any information acquired in the performance of his duties or in the exercise of his functions relating to the affairs of the BOM and its customers, or of any other bank or its customers.

In addition, staff of the BOM are bound by the code of conduct documented in the *Conditions of Service* and *Discipline and Disciplinary Procedures*, copies of which are provided to each staff member when they first begin working at the Bank. These internal documents instruct the staff to observe, in particular, secrecy regarding the information acquired in the course of duty, not to allow any unauthorized access to books and papers

belonging to the Bank, and not to engage in public discussion of the BOM's affairs or policy without the permission of the Managing Director.

2. Methodological soundness

2.1 *Concepts and definitions*

2.1.1 The overall structure in terms of concepts and definitions follows international standards, guidelines, or agreed practices.

The overall structure of the balance of payments statistics is broadly in conformity with the guidelines presented in *BPM5*. However, the concepts and definitions set out in *BPM5* are not currently followed in several areas:

- **Residency.** The guidance notes for the revised monthly bank reporting form introduced on July 1, 2001, which will affect the quarterly balance of payments statistics compiled for the third quarter of 2001 onwards, clarifies the concept of residency. Prior to July 1, 2001, there was some confusion of the part of respondents about the definition of residency, with the result that the data reported by some banks for the period through the second quarter of 2001 are based on foreign currency transactions, rather than resident/nonresident transactions.
- **Sectoral definitions.** The balance of payments statistics define the National Pension Fund (NPF) as part of other sectors (as a nonbank financial institution) and not as part of government (an extrabudgetary social security scheme).

Deviations from the concepts and definitions specified in the *BPM5* are not identified in the publications.

2.2 *Scope*

2.2.1 The scope is broadly consistent with international standards, guidelines, or agreed practices

The balance of payments data cover the whole territory of Mauritius and its embassies abroad. However, the coverage of the data is incomplete in the following areas:

- **Offshore sector.** Although the 11 offshore banks and approximately 15,000 offshore enterprises are deemed to be residents of Mauritius, the transactions of these entities are not included in the balance of payments statistics, as data on the cross-border transactions of this sector are not currently available.
- **Non-cash financial transactions.** There is no reporting mechanism to systematically record non-cash financial transactions, such as share exchanges, stock dividends, debt to equity conversions, and arrears, in the balance of payments statistics.

- **Repairs on goods.** Data on these transactions are not included in the goods data in the balance of payments statistics.
- **Services** Data on transactions on banks' own behalf are not covered.
- **Income.** Data on compensation of employees and on income from direct investment reinvested earnings are not included in the balance of payments. Data on the interest income of banks are also not included, although it is planned to include these data in the quarterly balance of payments statistics with effect from the third quarter, 2001 onwards.
- **Current/capital transfers.** The data on foreign aid are limited to aid received in cash and in kind by the government and do not include aid in cash or in kind received by nongovernment organizations (NGOs). The counter-entries for migrants' transfers in kind are also not included.
- **Acquisition/disposal of nonproduced, nonfinancial assets.** Data on these transactions are not included.
- **Direct investment.** The data on the direct investment financial transactions are limited only to those cash transactions made through the onshore banks, and therefore exclude equity contributions in kind, and intercompany settlements not made through the banking system.
- **Other investment.** The balance of payments statistics do not include data on trade credits other than those relating to sugar exports. Prior to the quarterly data for 2000 (released on July 20, 2001), the balance of payments statistics did not include data on foreign bank deposits, and the break in the coverage has not been acknowledged.

In addition, while the services transactions of the Freeport area obtained from the bank records are included in the balance of payments statistics, the transactions for imports and exports of goods shown in the trade data are excluded. These transactions have apparently been excluded because of concern about possible double-counting given that the difference between the value of the imports and the value of the exports of goods approximates the value of merchanting fees, notwithstanding the fact that the merchanting fees do not involve goods that have crossed the border of the compiling country.

Deviations from the international standard (*BPM5*) regarding coverage are not identified in the publications.

2.3 *Classification/sectorization*

2.3.1 *Classification/sectorization systems are broadly consistent with international standards, guidelines, or agreed practices.*

The classification of the balance of payments for Mauritius is broadly consistent with the main aggregates of the *BPM5*, and consists of the Current Account, the Capital Account, and the Financial Account. However, data for a number of the standard *BPM5* components of the Current Account are not disseminated, although these data are often available or compiled. With the exception of the data on reserve assets, data are not disseminated on the following standard *BPM5* components of the Financial Account (1) direct investment (equity capital, reinvested earnings, and other capital), (2) portfolio investment (equity securities, and debt securities, both further broken down by sector), and (3) other investment (trade credits, loans, currency and deposits, and other, all further broken down by sector).

Goods

Data are disseminated on only two of the five *BPM5* components, namely, general merchandise, and nonmonetary gold. (However, no data for nonmonetary gold have been published since the fourth quarter of 1999.) Of the other three *BPM5* components, data on goods for processing are not separately identified in the quarterly balance of payments statistics although quarterly data are published by the CSO on the imports and exports of the Export Processing Zone (EPZ), and the imports and exports of raw materials of the EPZ are instead misclassified under the general merchandise component. Data on goods procured in ports by carriers are not separately identified from general merchandise in the quarterly balance of payments statistics, although quarterly data on these transactions are available. (Data on goods procured in ports by carriers are, however, reported to the Fund for publication in the *Balance of Payments Statistics Yearbook (BOPSY)*.) Data on repairs on goods are not included in the balance of payments statistics.

Services

Data are disseminated for only two of the 11 standard components of *BPM5*, namely, transportation services and travel services, and the remaining services transactions are aggregated under "other services", further broken down into private and government. Although data are compiled for the following *BPM5* components and sub-components, these data are not disseminated: (i) sea transport, further broken down into passenger, freight, and other; (ii) air transport, further broken down into passenger, freight, and other; (iii) other transport; (iv) communications services; (v) construction services; (vi) insurance services; (vii) financial services; (viii) computer and information services; (ix) royalties and license fees; (x) other business services, further broken down into merchanting and other trade-related services, and other; (xi) personal, cultural, and recreational services; and (xii) government services n.i.e. These detailed data are, however, reported to the Fund for publication in the *BOPSY*.

The practice of classifying under insurance services certain elements of insurance claims and premiums that should be classified under the current transfers category of the Current Account, is expected to be corrected beginning with the data for the third quarter of 2001 onwards. (See comments under 3.1, Source data, below.)

Income

Data are disseminated for only one of the two *BPM5* components, namely, investment income, although data on compensation of employees are expected to be compiled beginning with the data for the third quarter of 2001 onwards. (See comments under 3.1, Source data, below.) Data are disseminated for only two of the three sub-components of investment income—direct investment income and other investment income.

The data on direct investment income cover only dividends—data on direct investment interest income are misclassified under other investment income, and, as indicated above, reinvested earnings are not included in the balance of payments statistics for Mauritius. Although data on portfolio investment income are compiled, no separately identified data are disseminated on these data, and the data are instead misclassified under other investment income in the national presentation. (Data on portfolio investment income are, however, reported to the Fund for publication in the *BOPSY*.)

Current transfers

Data are disseminated on both the standard *BPM5* components of general government, and other sectors. However, the data on general government include both current transfers and capital transfers (the latter should be classified under the Capital Account). Although the data classified under “Private” (that is, the *BPM5* other sectors component) include only workers’ remittances, these transactions are not separately identified under the workers’ remittances sub-component, and are instead misclassified under the other sectors: other transfers sub-component in the data reported to the Fund for publication in *BOPSY*.

Capital transfers

Data are disseminated only for the migrants’ transfers sub-component. The data cover only migrants’ transfers in cash—transfers in kind are not included. As indicated above, data on general government capital transfers are misclassified under the current transfers category of the Current Account.

Direct investment

Data are disseminated only for total direct investment and direct investment abroad. No data are disseminated in the national presentation on the sub-components of (i) equity capital, and (ii) other capital. As indicated above, reinvested earnings are not included in the balance of payments statistics for Mauritius.

Portfolio investment

Data are disseminated only for total portfolio investment, portfolio investment assets and liabilities. Separately identifiable data are not able to be compiled on debt securities and equity securities, and the data reported to the Fund misclassify these data as being all equity securities. However, beginning with the data for the third quarter of 2001 data will be able to be compiled for debt securities assets and liabilities, and equity securities assets and liabilities. (See comments under 3.1, Source data, below.)

Other investment

Data are disseminated for total other investment, assets, and liabilities. Data are not disseminated on the *BPM5* standard components that classify the data by type of instrument (trade credit, loans, currency and deposits, and other assets/liabilities), further broken down by sector (monetary authorities, general government, banks, and other sectors). The national presentation shows only a breakdown for: (i) general government: long-term; (ii) other sectors: long-term; (iii) other sectors: short-term; (iv) banks; and (v) use of Fund credit.

In the classification used in the national presentation, data on monetary authorities assets and liabilities are incorrectly classified under general government, rather than being separately identified. The BOM plans to rectify this misclassification in the near future.

In the classification used for the data reported to the Fund for publication in *BOPSY*, the data on loan assets and liabilities of banks are included under currency and deposits, rather than being separately identified, even though data on loan liabilities and most loan assets are available. In addition, the foreign bank deposits of other sectors are misclassified under other assets and liabilities: other sectors, rather than under currency and deposits: other sectors. As the data on trade credits cover only those related to sugar exports, the data are classified under other assets, rather than trade credits, in order not to breach the confidentiality of the data.

Reserve assets

Data are disseminated showing total assets and data for all five of the *BPM5* components, namely, (i) monetary gold, (ii) Special Drawing Rights (SDRs), (iii) reserve position in the Fund, (iv) foreign exchange, and (v) other claims.

Deviations from the international standards regarding classification are not identified in the publications.

2.4 Basis for recording

2.4.1 Market prices are used to value flows and stocks

Goods are valued by the Customs Department at the price actually paid, or payable, for goods, and the imports and export data are recorded on an f.o.b. basis in accordance with *BPM5*. (The imports data are also recorded on a c.i.f. basis.) The imports data are converted into Mauritian rupees at the exchange rate prevailing on each Tuesday of the preceding week, in accordance with information provided to Customs each week by the BOM. Other transactions that are measured in foreign currencies are converted to Mauritian rupees at the prevailing daily market rates. The data on portfolio investment liabilities reported by the Stock Exchange of Mauritius (SEM) are recorded at market values.

The data on financial flows of banks, as well as the data on reserve assets, are derived as the net change in the outstanding balances between two months, and no adjustments are made to remove the effect of price and exchange rate fluctuations.

2.4.2 Recording is done on an accrual basis

The balance of payments statistics are recorded on a cash basis, and no adjustments are made to convert the data to an accrual basis.

2.4.3 Grossing/netting procedures are broadly consistent with international standards, guidelines, or agreed practices

In accordance with *BPM5*, the Current Account and Capital Account transactions are generally recorded on a gross basis and those of the Financial Account on a net basis. However, the following Current Account transactions are recorded on a net, rather than gross, basis: (i) data on communications services, as payments of the Mauritian Post Office and the Mauritian Telecommunications with their international counterparties are settled on a net basis; (ii) those services transactions or income transactions that are subject to withholding taxes, as the data source is the banking records; and (iii) those intercompany transactions that are settled on a net basis, as, again, the data source is the banking records.

Deviations from the international standard regarding the basis of recording are not identified in the publications.

3. Accuracy and reliability

3.1 Source data

3.1.1 Source data are collected from comprehensive data collection programs that take into account country-specific conditions.

The data sources used to compile the balance of payments are the trade data compiled by the CSO and the banking records obtained by the BOM through a monthly bank reporting form, supplemented by administrative data and information from selected companies.

The data collection system is not comprehensive and a number of the deficiencies in the coverage and classification of the balance of payments statistics described in 2.2, Scope, and 2.3, Classification/Sectorization, above, reflect gaps in the data sources. The major areas where the existing data sources are deficient are (i) the transactions of the offshore sector; (ii) services transactions on banks' own behalf; (iii) compensation of employees; (iv) investment income—reinvested earnings, and interest income of banks; (v) current transfers—in cash and in kind (government and NGOs); (vi) capital transfers—in cash and in kind (government and NGOs); (vii) direct investment—equity capital and other capital transactions; (viii) portfolio investment—debt securities, asset and liability transactions; (ix) other investment—trade credits, and loan transactions; and (x) non-cash financial transactions, such as share exchanges, stock dividends, debt to equity conversions, and arrears.

Current Account

Goods: The data source for goods is the trade data compiled by the CSO that are based on Customs records. Although the CSO have data on repairs of goods, these figures are not used to compile data for this BPM5 component.

Services: With the exception of the data on transportation services, the primary data source is the monthly banking records of the onshore banks. As indicated above, the balance of payments statistics do not cover the activities of the offshore banks and enterprises. The new bank reporting form introduced with effect from July 1, 2001 will permit data to be compiled from the third quarter of 2001 onwards for all the BPM5 components and sub-components. This new reporting form will also permit the correction of a number of classification errors identified in 2.3, and will obtain data to fill a few of the coverage gaps identified in 2.2. However, the new banking reporting form is designed to cover only the transactions of banks on behalf of their clients, and not the transactions on the banks' own behalf, for which there is no reliable data source. (The balance sheet data reported by banks on their assets and liabilities cannot provide information needed to compile data on their services transactions.) The BOM is planning to address this issue in the coming months, prior to compiling the data for the third quarter of 2001, possibly by adding a column for transactions on banks' own behalf to the new bank reporting form, or by exploring the extent to which the Supervision Department of the BOM may be able to obtain these data from the banks.

The data on transportation services are obtained from a quarterly survey that covers all domestic and foreign airlines and shipping companies operating into and out of Mauritius. However, when the data from the transportation survey are not available on a timely basis, the data are estimated using information published by the CSO on aspects such as the number

of tourists and the level of imports and exports, and the data are subsequently revised to reflect the transportation survey results.

Income

- *Compensation of employees.* There is presently no data source for compensation of employees. However, the new bank reporting form introduced with effect from July 1, 2001 will permit data to be compiled from the third quarter of 2001 onwards for this item.
- *Investment income.* The data sources are: (i) the monthly banking records for payments and receipts of dividends, (ii) quarterly reports from the MOF for data on interest payments on government and public sector debt, and (iii) quarterly reports from the Accounting, Budgeting, and Payments System Department of BOM for the data on interest income of the monetary authorities. There are presently no data sources for: (i) portfolio investment—equity income, (ii) portfolio investment—debt income (interest), (iii) direct investment—equity income, (iv) direct investment—reinvested earnings, (v) direct investment—debt income (interest), and (vi) other investment—debt income of banks. The new bank reporting form makes provision for the collection of data on portfolio investment equity income and debt income, but not for items (iii) through (vi).

Current transfers: The main data source is the monthly banking records, supplemented by annual reports from the Accountant-General on foreign aid in cash and in kind, and from the Mauritian Post Office on money order transactions, which are deemed to be related to workers' remittances. The new bank reporting form makes specific provision for the recording of transactions on workers' remittances. Although there are no data sources for current transfers in kind, the BOM has recently written to the Accountant-General requesting that quarterly data on foreign aid in cash and in kind be provided in the future. As indicated above, there is no data source for current transfers in the form of foreign aid in cash or in kind received by the NGOs.

Capital Account

Capital transfers. There is no data source for capital transfers in cash or in kind in the form of foreign aid, either those received by government or those received by NGOs. (The data on capital transfers received by government are included in the data on current transfers.) The BOM has recently requested that the Accountant-General in future provide a breakdown of foreign aid received in cash into current and capital transfers, and also provide data on capital transfers in kind.

The banking records provide data on migrants' transfers in cash transacted through onshore banks. The BOM has recently asked the CSO to provide information on the portion of merchandise trade imports that represents migrants' transfers in kind, which will be used as a data source in the future to supplement the banking data.

Acquisition/disposal of nonproduced, nonfinancial assets. There is presently no data source for these transactions, and the new bank reporting form does not made specific provision for them, instead including them under the “other transactions” category.

Financial Account

Direct investment. The data source is the banking records. However, the new bank reporting form does not make provision for the identification of equity capital transactions and other capital transactions (intercompany debt transactions).

Portfolio investment. The data sources are (i) quarterly reports provided by the SEM on the purchases and sales by nonresidents of domestic equity securities; (ii) quarterly reports on purchases and sales of nonresident equity and debt securities provided by the NPF and by mutual funds, such as the National Mutual Fund and National Investment Trust; and (iii) supplements to the monthly bank reporting form for data on purchases and sales of nonresident equity and debt securities by residents, and on purchases and sales by nonresidents of domestic debt securities. (As the supplement to the bank reporting form clearly indicates the name of the client, it is possible to remove any double-counting of transactions of the NPF and mutual funds from the data.) The supplements to the bank reporting form are used as an alternative data source in instances when the data from the NPF and the mutual funds are not available.

Other investment. The data sources are (i) the monthly asset and liability statements of banks provided by the Accounting, Budgeting, and Payment System Department of the BOM, (ii) MOF data on loan transactions of government and the public sector, and (iii) the banking records for loan transactions of other sectors. As indicated above, there are no data sources for trade credits (except for the Mauritius Sugar Syndicate). The data in the asset and liability statements of banks cannot be used as a data source to separately identify the loan assets of banks in the balance of payments statistics, as the statements show separately identifiable data for the loan liabilities only.

Reserve assets. The data source is the monthly assets and liabilities statement of the BOM provided by the Accounting, Budgeting, and Payment System Department.

There is no data source for non-cash financial transactions, such as share exchanges, stock dividends, debt to equity conversions, and arrears.

3.1.2 Source data reasonably approximate the definitions, scope, classifications, valuation, and time of recording required.

Most of the problems regarding the definitions, scope, and classifications identified in 2.1, 2.2 and 2.3 above directly reflect the limitations of the source data. Although the introduction of the new bank reporting form will address a number of the problems, such as ensuring that data cover resident/nonresident transactions, rather than foreign currency transactions, and

will also permit a number of the classification errors to be addressed, coverage will remain a serious issue. (See 3.1.1 for a more complete description of the remaining problems affecting the classification and coverage of the balance of payments statistics.)

The bank reporting system and survey forms used by the BOM were revised in 1995 at the time that Mauritius adopted the methodology set out in *BPM5*. Recently the BOM has undertaken a campaign to improve the coverage and classification of the data obtained from the bank records. Several seminars were held during 2000 with the staff of the ten onshore banks to determine which aspects of the reporting forms caused confusion and therefore resulted in misreporting. As a result, the bank reporting form and accompanying Notes of Guidance have been revised with effect from July 1, 2001. Prior to that date a further BOM seminar was held to brief the banks' staff on the format and content of the new reporting form, and staff of several banks attended individual training sessions at the BOM on completion of the new forms. The BOM places a strong emphasis on developing close working relationships with the banks' staff and encourages them to contact the BOM whenever they have a reporting query.

Regarding the secondary data sources, information is published by the CSO in the quarterly *Economic and Social Indicators* that indicates that the trade data are compiled according to the General Trade System as recommended by the United Nations. No information is disseminated by the MOF to indicate whether the data compiled on loan transactions differ from the international statistical guidelines.

3.1.3 Source data are timely.

The data received from the banking records are very timely. The data are reported monthly, in an electronic spreadsheet submitted by e-mail. Data are required to be reported within seven days after the end of the reference month. Approximately 75 percent of the banks respond on time, and the remainder within a further two days. The remaining source data are less timely. The timeliness of the data provided by the MOF on debt transactions is one to two months. The timeliness of the trade data has recently improved from three months to two months. The portfolio investment data provided by the SEM, the NPF and the mutual funds have a timeliness of two to three months, and the timeliness of the data provided by the Accountant-General on foreign aid transfers is up to six months.

The data source that is the least timely is the transportation survey, the results of which are often not available for more than six months. As the BOM Act does not presently give the BOM authority to collect data from enterprises, the BOM has little leverage other than "moral suasion" to ensure timely receipt of these data. In instances when the survey data are not available, the BOM estimates the data on transportation services using data such as the number of tourists and the level of imports and exports, that are published by the CSO with a timeliness of within three months. These "estimates" are subsequently revised by substituting the transportation survey data once they become available.

3.2 Statistical techniques

3.2.1 Data compilation employs sound statistical techniques.

The data management procedures used by the Balance of Payments Section to compile the balance of payments data obtained from the banking records are designed to reduce the possibility of data entry errors—the detailed data obtained are transmitted electronically by the banks in Excel spreadsheets and are electronically downloaded at the BOM into a detailed aggregation/consolidation spreadsheet. Information on the percentage changes and absolute changes since the previous month are calculated electronically for each item for each bank, and any exceptional changes are queried with the relevant bank. The data are then input electronically into the detailed compilation spreadsheet.

Data from all other sources are received in hardcopy and have to be input manually into the detailed compilation spreadsheet. Once the detailed compilation spreadsheet is complete, the data are input manually into the Excel spreadsheet provided by the IMF's Statistics Department for reporting the standard *BPM5* components. Comparisons are then made between the component totals in the two spreadsheets to ensure that no errors have occurred during the entry of data into the Fund spreadsheet.

The BOM staff plan to amend the detailed compilation spreadsheet in the next six months to reflect the additional classification items included in the new bank reporting form, and at the same time to “link” the detailed compilation spreadsheet directly to the Fund spreadsheet, to eliminate the possibility of data entry errors in the latter spreadsheet.

The detailed data compilation procedures of the BOM staff responsible for the balance of payments statistics are not documented.

3.2.2 Other statistical procedures (e.g., data adjustments and transformations, and statistical analysis) employ sound statistical techniques

Adjustments are made to the data to apportion insurance and freight to the relevant services component. The total amount of insurance and freight is determined as being the difference between the data on imports c.i.f. and imports f.o.b. reported to the BOM by the CSO. The BOM then apportions the total on the assumption that 90 percent of the amount is freight and 10 percent is insurance.

Coverage adjustments are also made, where necessary, to include large transactions such as direct investment acquisitions that have been identified in the media but do not appear in the banking records of the onshore banks. In these instances, the relevant enterprises are approached to determine the nature, timing, and amount of the cross-border transaction prior to the adjustment being made.

No adjustments are made to convert the communications services data reported on a net basis in the banking records, to a gross basis.

No adjustments are made to convert the cash data to an accrual basis.

No adjustments are made to remove the effect of price and exchange rate fluctuations for transactions data derived as the difference between two sets of position data, such as the reserve assets.

3.3 Assessment and validation

3.3.1 Source data—including censuses, sample surveys and administrative records—are routinely assessed, e.g., for coverage, sample error, response error, and non-sampling error; the results of the assessments are monitored and made available to guide planning.

There have been problems in the past with the accuracy of the banking records data—for example, transactions have been included on the basis of currency, rather than residency, transactions on banks' own behalf have been included with those on behalf of the bank's clients, and transactions have been misclassified. The accuracy of the data is expected to improve with the introduction of the new bank reporting form and the recent educational/training efforts of the BOM. (See also 3.1.2, Source data, above.)

The surveys on transportation have full coverage and sample surveys are not used. The data are considered to be accurate as they are based on the accounting records of the relevant enterprises. The data from the MOF and the Accountant-General are also considered to be accurate, as they are based on the accounting records of government. Subsequently, the enterprise and government data are subject to audit.

3.3.2 Main intermediate results are validated against other information where applicable.

The data for a number of components of the balance of payments are cross-checked against alternative data sources. For example, the data on transportation services, and portfolio investment assets and liabilities obtained from surveys are cross-checked against the banking records, although the survey data are regarded as being more accurate. The trade data provided by the CSO are also cross-checked against the banking records for large enterprises or transactions.

3.3.3 Statistical discrepancies and other potential indicators of problems in statistical outputs are investigated and made available to guide users

Net errors and omissions are closely monitored and efforts are made to determine the reasons for any significant increases in the size of the net errors and omissions item. (Investigations of this kind led to the decision in 2000 to include the data on bank deposits that had previously been omitted from the balance of payments statistics.) When the level of net errors and omissions is high, reporting banks are asked to double-check certain aspects of their data to make sure that no transactions have been omitted. The data on direct investment and portfolio investment are also reviewed to determine whether a major transaction has been omitted. The BOM uses the “rule of thumb” in the fourth edition of the IMF’s *Balance of*

Payments Manual namely, five percent of gross merchandise trade transactions, as a guide to assess the acceptable level of net errors and omissions, and efforts are continuously made to keep the level of net errors and omissions below this level.

The behaviors of certain balance of payments components are cross-checked against related data series or indicators. For example: (i) the data on travel are cross-checked against data published by the CSO on tourist arrivals, and the change in the exchange rates; (ii) the data on petroleum imports are cross-checked against data on the change in oil prices; and (iii) the data on sugar exports are compared with the traditional seasonal pattern, drought conditions etc.

Some use is made of data of international organizations—for example, the Fund data on the use of Fund credit and SDRs are used to cross-check the data provided by the Accounting, Budgeting, and Payment System Department of the BOM. Bilateral comparisons of trade data are rarely made. The data compiled by the Development Assistance Committee of the Organisation for Economic Co-operation and Development (OECD) on foreign assistance to individual countries are not used to cross-check the data on foreign aid provided by the Accountant-General.

3.4 Revision studies

3.4.1 Studies and analyses of revisions are carried out routinely and used to inform statistical processes.

Any major revisions to the bank records data or to the trade data are queried by the BOM and an explanation of the change is sought from the relevant bank or agency. However, no formal revision studies are conducted on a routine basis.

3.4.2 Revision studies and analyses are made public and used to guide data users.

No formal revision studies are undertaken. Users are not informed of the reasons for revisions to the data. (See also 4.4.3 below.)

4. Serviceability

4.1 . Relevance

4.1.1 Processes to monitor the relevance and practical utility of existing statistics in meeting users' needs are in place.

As indicated in 0.1 and 0.3, the BOM is a member of the SAC, established in part to ensure that the existing statistics are meeting the needs of users.

Repeated queries from users for additional data on direct investment led to the recent decision to begin to disseminate data on the sectoral breakdown of direct investment in Mauritius and direct investment abroad in the BOM's *MSB*. However, the existence of the

detailed direct investment data is not noted on the balance of payments statistics table in the *MSB*.

Although queries on other aspects of the balance of payments statistics are frequently received—primarily requests for more detailed balance of payments data that are compiled but not published—there is no formal system for monitoring these requests and for reviewing the queries to determine whether they indicate that the needs of users are not being met by the data presently disseminated.

The BOM staff have participated in international seminars on external debt statistics and on portfolio investment, and Mauritius will participate in the IMF-sponsored 2001 Coordinated Portfolio Investment Survey. The BOM staff are also actively involved in the statistical development work of the regional organizations of the Southern African Development Community (SADC) and the Common Market for Eastern and South Africa (COMESA).

4.2 Timeliness and periodicity

4.2.1 Periodicity follows dissemination standards.

The BOM disseminates quarterly balance of payments statistics, which exceeds the annual periodicity recommended by the GDDS, and meets the periodicity for balance of payments statistics prescribed by the SDDS.

4.2.2 Timeliness follows dissemination standards.

The BOM disseminates the balance of payments statistics with a timeliness of between 7-15 months, as compared to the timeliness of 6-9 months recommended by the GDDS. (The quarterly data are presently disseminated only once a year, at the end of the financial year ending June 30, but the BOM plans to begin disseminating the quarterly data with a quarterly periodicity, with effect from the data for the first quarter of 2001. This change in the frequency of dissemination will result in a timeliness of seven months.) The SDDS prescribes a timeliness of three months.

4.3 Consistency

4.3.1 Statistics are consistent or reconcilable over a reasonable period of time.

The practices of the BOM regarding the provision of data that are consistent and reconcilable over a reasonable period of time vary. On the one hand, at the time the BOM adopted the *BPM5* methodology in 1995, the historical data were revised back to 1990, and revised data for the previous four years were published in the BOM's *Annual Report* for that year. A special information box was also published in the *Annual Report* of that year to explain the main changes resulting from the change to *BPM5*.

On the other hand, at the time of the change in the coverage of the data to include banking deposits previously excluded from the balance of payments statistics (which was introduced with effect from the quarterly 2000 data released in the June 2001 edition of the BOM's *MSB*), the historical data were revised back only to the beginning of 1999, the revised data for 1999 have not yet been disseminated, and users were not advised of the change in coverage.

4.3.2 Statistics are internally consistent (e.g., accounting identities observed)

Net errors and omissions have averaged 2.6 percent of merchandise trade gross transactions and 1.6 percent of Current Account gross transactions in the period from 1995 through 2000, reaching a peak of 5.1 percent of merchandise trade gross transactions and 3.2 percent of Current Account gross transactions in 1999.

4.3.3 Statistics are consistent or reconcilable with those obtained through other data sources and/or statistical frameworks.

The balance of payments statistics are broadly consistent with data obtained from other data sources and statistical frameworks. The balance of payments data are reconciled with the monetary statistics—the two data sets share the same basic data source in a number of instances, and efforts are made by the BOM staff to ensure that any errors identified, revisions made etc. are reflected in both the balance of payments and the monetary statistics.

The BOM staff compiling the balance of payments statistics also work closely with the national accounts compilers at the CSO. The CSO compilers use the BOM data on imports and exports of services as a data source for the external sector national accounts. The BOM also compares the aggregates of the balance of payments with the aggregates for the national accounts of the external sector as a quality control check prior to publishing the balance of payments statistics.

However, there are differences in the coverage and classification of the data. For example (i) the balance of payments statistics do not include the goods transactions of the Freeport that are published in the CSO trade statistics, (ii) the balance of payments data misclassify the NPF under “other sectors”, rather than as “government” as in the national accounts data of the CSO and the government finance statistics compiled by the MOF, and (iii) the national accounts data, which are annual, are able to classify foreign aid into current transfers and capital transfers, using data published in the *Annual Report of the Accountant-General*—data that are not yet available on a quarterly basis for use in the balance of payments statistics.

4.4 Revision policy and practice

4.4.1 Revisions follow a regular, well established, and transparent schedule.

Data revisions are usually made as and when revised data become available from other agencies, such as revised trade data provided by the CSO. On occasion, the balance of payments statistics are also revised to reflect changes in the methodology, or improvements in the coverage, such as the recent revisions made to incorporate data on foreign bank deposits. This revision policy is not disseminated in the BOM publications. (See also 4.3, Consistency, above.)

4.4.2 Preliminary data are clearly identified.

The quarterly data for the latest year are “preliminary”. Those for the previous year are “revised”, and those for earlier years are “final”. However, the status of the data is not clearly indicated for the quarterly data published in the MSB, which are noted only as being “estimates”. The annual data published in the BOM Annual Report use the convention of “estimates” for preliminary data, and “revised”. Those data that are considered to be final are identified only through the absence of a footnote to the contrary. However, there have been instances when the data for earlier years have been revised and the revised status of the data has not been identified. (See also 4.3.1, for further details of recent instances where this has occurred.)

4.4.3 Studies and analyses of revisions are carried out routinely and made public.

No studies or analysis of revisions are undertaken on a routine basis. In addition, the public is not informed of the reasons for the revisions made to the data. However, this information is available on request if the reason is straightforward, such as revised trade data. If the reason is a change in the methodology or compilation practices, then the requested explanation is provided only with the approval of the Managing Director.

5. Accessibility

5.1 Data accessibility

5.1.1 Statistics are presented in a way that facilitates proper interpretation and meaningful comparisons (layout and clarity of text, tables, and charts).

While the format of the balance of payments table in the MSB broadly follows the main aggregates of the BPM5 presentation, there are a number of aspects that seriously hinder interpretation and meaningful comparisons by users.

- The data are presented showing debit and credit columns for each quarter, and the year as a whole, rather than having separate rows that would enable the nature of the credit and debit entries to be identified in the row titles. The present format is difficult

for a non-specialist user to interpret, as it is not intuitively obvious from the “credit” and “debit” headings which data relate, for example, to imports as opposed to exports, or which data relate to direct investment in Mauritius as opposed to direct investment abroad, or which data relate to assets as opposed to liabilities for the data on portfolio investment and other investment.

- Data are shown for one year at a time (data for four quarters and data for the year), rather than on a rolling quarterly basis, which makes it difficult to assess changes between consecutive quarters that happen to be in different calendar years—for example, changes between the fourth quarter of a given year and the first quarter of the following year.
- The classifications used in the other investment category of the Financial Account do not follow the standard *BPM5* components and instead are a mixture of sectors and debt instruments.
- No data are provided on the overall balance, and no footnote is provided against the net errors and omissions line to explain that the overall balance is equal in value to, and opposite in sign to, the data for net errors and omissions.
- No detailed data are disseminated, either in supplementary tables or on the BOM website, showing *BPM5* standard components for which data are available or compiled and which are likely to be of interest to users concerned with the Mauritian economy— such as the imports and exports of the EPZ, and the passenger and freight transactions for airlines and shipping transport companies.
- No notes are provided to clarify the reasons for revisions, changes in the methodology etc.
- No time series data are published for the quarterly balance of payments statistics, with the result that revised quarterly data for the previous year are not disseminated.
- No analysis or commentary accompanies the release of the data.
- There are no cross-references to related data that are disseminated elsewhere in the publication, such as tables showing the sectoral breakdown for direct investment in Mauritius, including direct investment in the EPZ, and direct investment abroad.

5.1.2 Dissemination media and formats are adequate.

The dissemination media are adequate. The quarterly data are first released in the hardcopy edition of the BOM’s *MSB*, which is placed on the BOM website on the same day. (The delay resulting from the need to print the hardcopy edition is 10–12 days, indicating that there is only limited scope to improve the timeliness by posting the data on the Internet prior to the release of the hardcopy publication.) The annual time series data are published in the

hardcopy edition of the BOM's *Annual Report*, which is posted on the BOM website on the same day.

However, as indicated above, the balance of payments statistics published in these two publications are at an aggregated level, and do not meet the need of users for more detailed data on the standard components of the *BPM5* presentation, much of which are available or compiled. The dissemination media and format could be improved by, for example, posting the detailed data on the BOM website at the same time as the *MSB*, and adding a footnote to the balance of payments data in that publication indicating where to find the detailed data. The time series data on quarterly balance of payments statistics could also be disseminated by the same means.

5.1.3 Statistics are released on a pre-announced schedule.

There is no formal pre-announced schedule of release dates, but the *MSB* is usually released around the 20th of the month. Internal BOM policy requires that the publication be released no later than the 20th, but indicates that it can be released earlier if that date falls on a weekend or holiday. There is no specific deadline for the release of the BOM Annual Report, but the document is usually published at the end of September.

The metadata for the Bank of Mauritius posted on the GDDS DSBB indicates that work is being carried out to assess the feasibility of building on the internal production schedules to introduce release calendars for dissemination of BOP statistics to the public.

5.1.4 Statistics are made available to all users at the same time.

The data are released simultaneously to all interested parties through the publication of the hardcopy edition of the *MSB*.

5.1.5 Nonpublished (but nonconfidential) sub-aggregates are made available upon request.

Nonpublished, nonconfidential sub-aggregate data are available to users on request. However, the availability of these detailed data is not publicized.

5.2 Metadata accessibility

5.2.1 Documentation on concepts, scope, classifications, basis for recording, data sources, and statistical techniques is available, and differences from international standards are annotated.

The balance of payments statistics are disseminated without any explanatory text or footnotes. Although no descriptions of the methodology used, the data sources, coverage of the data, etc. are published in hardcopy by the BOM, information on these issues is published in the Fund's BOPSY, and the BOM has a hyperlink from its website to the GDDS metadata

posted on the DSBB. However, the public is not informed of the availability of this information in the BOM hardcopy publications.

Differences from international standards are not annotated.

5.2.2 Different levels of detail are provided depending on intended audience and type of collection.

As indicated above, only aggregated data are disseminated for the quarterly and annual balance of payments statistics. The needs of users for more detailed data and longer time series quarterly data are not being met at present. Although unpublished data are available on written request to the BOM, this fact is not publicized. (See also 5.1.5 and 5.3.1.)

5.3 Assistance to users

5.3.1 Contact person for each subject field is publicized.

Details of the contact person for the balance of payments data are not publicized in the hardcopy publications. The GDDS DSBB does, however, provide information on a high level contact person (the Director of the Research Department), and arrangements have been established within the BOM to ensure that any queries received by that contact are directed to the relevant person in the Balance of Payments Section. Any requests for unpublished, nonconfidential data must be made in writing (by letter or fax) and the release of the data must be approved by the Director, Managing Director, or Governor, as appropriate. (See also 5.1.5.)

5.3.2 Catalogues of publications, documents, and other services, including information on any charges, are widely available.

No formal catalogue is disseminated. However, the BOM website has a section on its publications (the MSB and the Annual Report) that contains the electronic versions of these two publications—for the period since January 2001 for the MSB, and since 1998/99 for the Annual Report. In addition, the indices of these publications list the tables and data contained in each issue.

Table 1.1 Data Quality Assessment Framework: Summary of Results for National Accounts*
(Compiling agency: Central Statistics Office)

Element	NA	Assessment				Main Factors Contributing to the Assessment of Non-Observance	Plans for Improvements **
		O	LO	LNO	NO		
0. Prerequisites of quality							
0.1 Legal and institutional environment		X					
0.2 Resources		X					
0.3 Quality awareness		X					
1. Integrity							
1.1 Professionalism		X					
1.2 Transparency		X					
1.3 Ethical standards		X					
2. Methodological soundness							
2.1 Concepts and definitions		X					
2.2 Scope		X					
2.3 Classification/sectionization							
2.4 Basis for recording							
3. Accuracy and Reliability							
3.1 Source data							3.1 Census of Agriculture and Livestock planned in medium term.
3.2 Statistical techniques							2.2 Financial transactions are not included. Estimates for consumption of fixed capital are not published. 2.4 General government and external transactions other than goods are recorded on a cash basis rather than accrual basis.
3.3 Assessment and validation							3.1 Differing accounting years of enterprises and valuation of changes in inventories reduce accuracy. Outdated coefficients in agriculture. 3.2 The single indicator method rather than the recommended double deflation method is used for compiling volume measures of GDP. 3.3 Internal processes and procedures are not made public.
3.4 Revision studies							
4. Serviceability							
4.1 Relevance							4.2 Quarterly national accounts are in an advanced stage of development. Regular publication possible in 2 years.
4.2 Timeliness and periodicity							
4.3 Consistency							
4.4 Revision policy and practice							
5. Accessibility							
5.1 Data accessibility							
5.2 Metadata accessibility							
5.3 Assistance to users							5.3 The Guide to the Central Statistics Office will be published shortly.

* See Appendix I-E in Part III for the detailed Assessment. ** Plans of the authorities and target dates as of July 2001.

Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Practice Not Observed, SDDS = Complies with SDDS Criteria

Table 1.2 Data Quality Assessment Framework: Summary of Results for Consumer Price Index*
(Compiling agency: Central Statistics Office)

Element	NA	Assessment			Main Factors Contributing to the Assessment of Non-Observance	Plans for Improvements**
		O	LO	LNO		
0. Prerequisites of quality						
0.1 Legal and institutional environment		X				
0.2 Resources		X				
0.3 Quality awareness		X				
1. Integrity						
1.1 Professionalism		X				
1.2 Transparency		X	X		1.2 The CPI published in the <i>Government Gazette</i> does not identify the compiling agency. Information on major changes in methodology is not widely publicized.	
1.3 Ethical standards		X				
2. Methodological soundness						
2.1 Concepts and definitions		X				
2.2 Scope		X				
2.3 Classification/sectorization		X				
2.4 Basis for recording		X				
3. Accuracy and Reliability						
3.1 Source data		X				
3.2 Statistical techniques		X	X		3.2 The prices of temporarily missing items are carried forward to a maximum of 3 months, instead of imputed. Arithmetic averages rather than the recommended geometric averages are used. 3.3 Internal processes and procedures are not made public.	3.2 Geometric averages are being considered for the 2002 revision.
3.3 Assessment and validation		X				
3.4 Revision studies		X				
4. Serviceability						
4.1 Relevance		X				
4.2 Timeliness and periodicity		spas	X			
4.3 Consistency		X				
4.4 Revision policy and practice		X				
5. Accessibility						
5.1 Data accessibility		X	X		5.1 Only nine major commodity groups are published. Longer time series are available on diskette on request, but the public is not informed of this. First release of data is not pre-announced, and is not on a specific day and hour.	
5.2 Metadata accessibility		X	X		5.3 Contact persons and telephone numbers not published.	
5.3 Assistance to users						5.3 The <i>Guide to the Central Statistics Office</i> will be published shortly.

* See Appendix I-E in Part III for the detailed Assessment. ** Plans of the authorities and target dates as of July 2001.
Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Practice Not Observed; SDDS = Complies with SDDS Criteria

Table 1.3 Data Quality Assessment Framework: Summary of Results for Government Finance Statistics*
(Compiling agencies: Ministry of Finance and Central Statistics Office)

Element	NA	Assessment				Main Factors Contributing to the Assessment of Non-Observance	Plans for Improvements**
		O	LO	LNO	NO		
0. Prerequisites of quality							
0.1 Legal and institutional environment			X			0.1 No specific legal authority for GFS granted to a single agency.	
0.2 Resources		X		X		0.2 Staff resources are constrained. Few efforts to automate GFS processes. Efficiency efforts are ad hoc and informal. There is duplication of collection on extra-budgetary units (EBUs), local governments.	0.2 The MOF and CSO will review data collections to reduce duplication of effort between these agencies.
0.3 Quality awareness							
1. Integrity							
1.1 Professionalism			X			1.1 MOF staff are not permitted to comment on erroneous interpretation or misuse of the GFS.	
1.2 Transparency			X			1.2 Advance notice of major methodological, source data, or technical changes is not given to the public.	
1.3 Ethical standards		X					
2. Methodological soundness							
2.1 Concepts and definitions		X				2.1 The MOF and CSO intend to prepare a plan for migration to the GFSM 2001.	
2.2 Scope		X	X			2.2 In the medium term the MOF plans to publish quarterly consolidated central government accounts. The MOF also plans to improve its compilation and publication of public sector statistics, including through the streamlining and harmonizing public corporation accounts.	
2.3 Classification/sectorization		X					
2.4 Basis for recording		X					
3. Accuracy and Reliability							
3.1 Source data		X				3.1 Comprehensive data sources for EBUs and local government are not available on a timely basis.	
3.2 Statistical techniques		X					
3.3 Assessment and validation		X					
3.4 Revision studies	X					3.4 The GFS are compiled from audited data and there are no revision studies.	
4. Serviceability							
4.1 Relevance				X		4.1 GFS are not used to formulate, monitor, or evaluate policy.	
4.2 Timeliness and periodicity				X		4.2 The data are annual and not timely: central government operations lag=nine months; general government operations lag=21 months.	4.2 In the short-term the MOF has plans in place to publish quarterly budgetary central government statistics (during fiscal year 2001/02). In addition, in the medium term, the MOF and CSO will collaborate to reduce the lag in the dissemination of consolidated central government data.
4.3 Consistency		X			X	4.4 The GFS are compiled from audited data and there are no revisions. However, the policy and the notes are not made clear to the public.	
4.4 Revision policy and practice							
5. Accessibility							
5.1 Data accessibility			X			5.1 There is no pre-announced schedule for the release of GFS.	
5.2 Metadata accessibility		X				5.3 Contact persons and telephone numbers are not identified in GFS publications.	
5.3 Assistance to users			X				

* See Appendix I-E in Part III for the detailed Assessment. ** Plans of the authorities and target dates as of July 2001.
Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Practice Not Observed; SDDS = Complies with SDDS Criteria

Table 1.4 Data Quality Assessment Framework: Summary of Results for Monetary Statistics*
(Compiling agency: Bank of Mauritius)

Element	NA	Assessment				Main Factors Contributing to the Assessment of Non-Observance	Plans for Improvements and Target Dates**
		O	LO	LNO	NO		
0. Prerequisites of quality							
0.1 Legal and institutional environment		X				0.1 The BOM's statistical responsibility is not clearly stipulated.	
0.2 Resources		X					
0.3 Quality awareness		X					
1. Integrity							
1.1 Professionalism		X	X			1.2 Inter-departmental access prior to release is not publicly identified.	
1.2 Transparency							
1.3 Ethical standards		X					
2. Methodological soundness							
2.1 Concepts and definitions			X			2.1 The methodology used is based on the previous IMF guidelines rather than on the <i>MFSM</i> .	2.1 through 2.4 <i>MFSM</i> recommendations are to be implemented within 2 years.
2.2 Scope			X			2.2 Some depository corporations are not included.	
2.3 Classification/sectorization			X			2.3 There are instances of sectoral misclassifications and inadequate detail of instrument classification.	
2.4 Basis for recording				X		2.4 Valuation is based on historic cost rather than on market prices and recommended in the <i>MFSM</i> .	
3. Accuracy and Reliability							
3.1 Source data			X			3.1 The data sources are not consistent with the <i>MFSM</i> requirements.	3.1 To be revised within the <i>MFSM</i> implementation project
3.2 Statistical techniques			X			3.2 There is no internal documentation of compilation practices.	
3.3 Assessment and validation		X					
3.4 Revision studies	X					3.4 Data are final when first released.	
4. Serviceability							
4.1 Relevance		X					
4.2 Timeliness and periodicity		X					
4.3 Consistency		X					
4.4 Revision policy and practice	X					4.4 Data are final when first released.	
5. Accessibility							
5.1 Data accessibility			X			5.1 There is no publicly announced release schedule.	
5.2 Metadata accessibility		X					
5.3 Assistance to users			X			5.3 Contact persons and telephone numbers are not publicized.	

* See Appendix I-E in Part III for the detailed Assessment. ** Plans of the authorities and target dates as of July 2001.
Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Practice Not Observed; SDDS = Complies with SDDS Criteria

Table 1.5 Data Quality Assessment Framework: Summary of Results for Balance of Payments Statistics*
(Compiling agency: Bank of Mauritius)

Element	NA		Assessment				Main Factors Contributing to the Assessment of Non-Observance	Plans for Improvements**
			O	LO	LNO	NO		
0. Prerequisites of quality								
0.1 Legal and institutional environment				X			0.1 There is no specific legal authority for responsibility and authority to collect and disseminate BOP statistics.	
0.2 Resources			X					
0.3 Quality awareness			X					
1. Integrity								
1.1 Professionalism			X					
1.2 Transparency					X		1.2 Revised data are not always identified or disseminated. The public is not informed of internal government access to data prior to release, the public is not always informed of major changes in methodology, and there is no indication of which unit compiled the data.	
1.3 Ethical standards			X					
2. Methodological soundness								
2.1 Concepts and definitions				X			2.1 Guidance Notes to respondents are unclear on concept of residency (corrections underway with effect from Q3 2001 data). The definition of the general government sector is not accurate. 2.2 There are significant gaps in coverage (offshore sector, and most non-cash transactions). 2.3 Do not use BPM5 component structure for parts of Financial Account. There are a number of instances of misclassification. 2.4 Data are almost entirely on cash basis rather than an accrual basis. Reserve assets transactions include changes in prices and exchange rates.	2.2 Short-term. Coverage to be improved by including/ expanding data on: (i) repairs on goods; (ii) services transactions of banks; (iii) interest income of banks; (iv) compensation of employees; (v) workers' remittances transacted through the banks; and (vi) migrants' transfers in kind (with effect from Q3 2001 data). 2.3 Short-term: Classification of other investments to be changed to that used in BPM5 (from Q1 2001 data). Data on insurance services and current transfers to take account of insurance premiums and claims (with effect from data for Q3 2001). 2.4 Short-term: Data on reserve assets to be adjusted to remove changes in prices and exchange rates (with effect from Q1 2001 data).
2.2 Scope					X			
2.3 Classification/sectorization			X					
2.4 Basis for recording						X		
3. Accuracy and Reliability								
3.1 Source data				X				
3.2 Statistical techniques			X					
3.3 Assessment and validation						X		
3.4 Revision studies								
								3.1 Medium-term: Data sources to be expanded by possible establishment of a survey of enterprises and banks, both onshore and offshore, for all financial claims on and liabilities to nonresidents (both transactions, in cash and in kind, and stock positions), to cover all components of the Financial Account and income, including direct investment income from reinvested earnings. Data sources for current and capital transfers in kind received by NGOs to be investigated. 3.2 Short-term: Written documentation on compilation procedures to be prepared for internal use.

Element	NA	Assessment				Main Factors Contributing to the Assessment of Non-Observance	Plans for Improvements**
		O	LO	LNO	NO		
4. Serviceability							
4.1 Relevance			X				
4.2 Timeliness and periodicity			X		4.1 There is no formal system for monitoring and reviewing queries/requests for more detailed data from users to determine whether existing data meet user requirements. 4.2 Periodicity meets SDDS requirements. Timeliness is not within the GDDS recommended range. 4.3 Revised data arising from changes in coverage and compilation practices are not always disseminated. 4.4 Revision policy is not made public. The public is not informed of reasons for revisions and the results of the analyses are not publicized.	4.2 Short-term: Timeliness to be improved to 6 months (with effect from Q1 2001 data).	
4.3 Consistency				X			
4.4 Revision policy and practice				X			
5. Accessibility							
5.1 Data accessibility			X		5.1 Format of data table does not facilitate proper interpretation and meaningful comparisons. Dissemination medium offers limited scope for providing detailed data, time series data, analysis and commentary etc. Availability of detailed data on request in writing is not publicized.	5.1 Short-term: Format of the national presentation of BOP statistics to be amended to improve its accessibility by users (with effect from Q1 2001 data). More detailed balance of payments statistics to be disseminated showing: (i) BPM5 services components, including passenger fares and freight (with effect from Q1 2001 data); and (ii) portfolio investment assets and liabilities, broken down into debt and equity securities (with effect from Q3 2001 data).	
5.2 Metadata accessibility		X					
5.3 Assistance to users				X	5.3 Contact persons and telephone numbers are not published in BOM documents.		

* See Appendix I-E in Part III for the detailed Assessment. ** Plans of the authorities and target dates as of July 2001.

Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Practice Not Observed; SDDS = Complies with SDDS Criteria

Current Data Dissemination Practices: GDDS Summary Tables

Table 2. Data Coverage, Periodicity, and Timeliness³⁰

Real Sector					
Coverage		Periodicity		Timeliness	
GDDS	Current Practice	GDDS	Current Practice	GDDS	Current Practice
Comprehensive Framework					
National Accounts					
Producing and disseminating the full range of national accounts aggregates and balancing items in nominal and real terms, yielding Gross Domestic Product, Gross National Income, Gross Disposable Income, Consumption, Saving, Capital Formation, and Net lending/ borrowing. Producing and disseminating sectoral accounts and national and sectoral balance sheets as relevant.	Compilation is based on the "1993 SNA", using both production and expenditure approaches with volume indices using an annual chain base Laspeyres index. Broadly same coverage as recommended. Estimates do not include illegal transactions.	Annual	Annual	10-14 months	Prelim. est: 3 months; Prov. est: 9 months; Revised est: 21 months
Data Categories and Indicators					
National Accounts Aggregates					
GDP (nominal and real)	Same coverage as recommended, based on the "1993 SNA".	Annual (quarterly encouraged)	Annual	6-9 months	Prelim. est: 3 months; Prov. est: 9 months; Revised est: 21 months.
<i>Gross national income, capital formation, saving</i>	<i>Same coverage as encouraged.</i>	<i>Annual</i>	<i>Annual</i>	<i>6-9 months</i>	<i>Same as above</i>
Production Index/Indices					
Manufacturing or industrial	The Index of Industrial Production is compiled at the 5-digit ISIC Rev.3 level with 1997 as the base year and applying the Laspeyres formula.	Monthly	Annual	6 weeks	18 months (delayed in 2001 as result of change in benchmark year)
Primary commodity, agricultural, or other indices, as relevant	Not available	As relevant	Not applicable	3 months for all indices	Not applicable
Price Indices					
Consumer price index	Compiled on the basis of a basket of goods and services derived from data collected in 1996-97 Household Budget Survey. The computation follows the I.I.O standards.	Monthly	Monthly	1 or 2 months	10 days

³⁰ The sections in italics refer to data categories and indicators encouraged by the GDDS.

Real Sector					
Coverage		Periodicity		Timeliness	
GDDS	Current Practice	GDDS	Current Practice	GDDS	Current Practice
<i>Producer price index</i>	<i>Producer price index measures changes in manufacturers' prices received from domestic market. It is compiled for about 50 ISIC Rev.3 activities, with 1997 weights and 1998 = 100. Excludes enterprises in the Export Processing Zone.</i>	<i>Monthly</i>	<i>Compiled monthly, disseminated quarterly</i>	<i>1 or 2 months</i>	<i>10-12 weeks after ref quarter</i>
Labor Market Indicators					
Employment	Mainly based on data collected by the CSO through surveys of large private and parastatal establishments, as well as from the Central Government twice a year (one complete coverage and one on a sample basis) and follows ILO concepts.	Annual	Annual	6-9 months	CSO 3 months after reference year.
Unemployment	Data obtained as a derived item by subtracting estimates of employed persons from an estimate of total labor force.	Annual	Annual	6-9 months	3 months
Wages/earnings (all sectors)	Based on CSO surveys in large establishments in March and September each year. The September survey covers a sample of establishments and generates information by industry and occupation.	Annual	Annual for the index	6-9 months	6 months

Fiscal Sector					
Coverage		Periodicity		Timeliness	
GDDS	Current Practice	GDDS	Current Practice	GDDS	Current Practice
Comprehensive Framework					
Central Government Operations					
Producing and disseminating comprehensive data on central government transactions emphasizing: (1) coverage of all central government units; (2) use of appropriate analytical framework; and (3) development of a full range of detailed classifications (tax and nontax revenue, current and capital expenditure, domestic and foreign financing) as relevant.	Data produced and disseminated by the Ministry of Finance (MOF), and the Central Statistics Office (CSO), following the classification recommended in IMF's "A Manual on Government Finance Statistics, 1986". MOF data exclude extra-budgetary units and social security schemes while CSO data include them.	Annual	Annual	6-9 months	9-11 months by CSO. Budgetary central government deficit/surplus announced by Finance Minister 4-5 months after reference year.
<i>General government or public sector operations data strongly encouraged where subnational levels of government or public enterprise operations are of analytical or policy importance.</i>	<i>Data on general government compiled and disseminated by CSO as recommended.</i>	<i>Annual</i>	<i>Annual</i>	<i>6-9 months</i>	<i>One year and 11 months after reference year.</i>

Fiscal Sector					
Coverage		Periodicity		Timeliness	
GDDS	Current Practice	GDDS	Current Practice	GDDS	Current Practice
Central Government Debt					
Producing and disseminating comprehensive data on central government domestic and foreign debt, with breakdowns (debt holder, instrument, currency, etc. as relevant).	Same coverage as recommended and disseminated by the Treasury (the Accountant-General-AG), the MOF, the BOM, and the CSO in varying degrees of detail.	Annual	Annual	6-9 months	9-11 months by AG; 9-11 months by CSO.
Data Categories and Indicators					
Central Government Budgetary Aggregates					
Revenue, expenditure, balance, and financing with breakdowns (debt holder, instrument, currency), as relevant	Coverage follows the recommendations in the <i>GFSM 1986</i> .	Quarterly	Annual (monthly and quarterly data available for internal MOF use).	1 quarter	9-11 months by CSO; 11 months by MOF; overall deficit/surplus announced by Fin. Min. 4-5 months after ref. year.
<i>Interest payments</i>	<i>As encouraged.</i>	<i>Quarterly</i>	<i>As above</i>	<i>1 quarter</i>	<i>As above</i>
Central Government Debt					
Domestic debt and foreign debt, as relevant, with appropriate breakdowns (currency, maturity, debt holder, instrument), as relevant	Same coverage as recommended and disseminated by the Treasury (the Accountant-General-AG), the MOF, the BOM, and the CSO in varying degrees of detail.	Annual (Quarterly encouraged)	Annual	1-2 quarters	9-11 months by AG; 9-11 months by CSO; 11 months by MOF
<i>Government guaranteed debt</i>	<i>As encouraged.</i>	<i>Annual</i>	<i>Annual</i>	<i>1-2 quarters</i>	<i>As above for CSO and MOF; 6-7 months (external debt only) by MOF</i>

Financial Sector					
Coverage		Periodicity		Timeliness	
GDDS	Current Practice	GDDS	Current Practice	GDDS	Current Practice
Comprehensive Framework					
Broad Money Survey					
Producing and disseminating comprehensive data emphasizing: (1) coverage of all depository corporations (banking institutions), (2) use of an appropriate analytical framework; and (3) development of classifications of external assets and liabilities, domestic credit by sector, and components of money (liquidity) and nonmonetary liabilities.	The monetary survey consolidates only data for the Bank of Mauritius and the domestic commercial banks. Offshore banks, nonbank depository financial institutions, and the Post Office Savings Bank are not included.	Monthly	Monthly	2-3 months	7 weeks

Financial Sector					
Coverage		Periodicity		Timeliness	
GDDS	Current Practice	GDDS	Current Practice	GDDS	Current Practice
Data Categories and Indicators					
Broad Money and Credit Aggregates					
Net external position, domestic credit, broad or narrow money	Data cover Bank of Mauritius and domestic deposit money banks. Offshore banks, the Post Office Savings Bank, and the nonbank financial institutions not included.	Monthly	Monthly	1-3 months	7 weeks
Central Bank Aggregates					
Reserve money	Same coverage as recommended.	Monthly	Monthly	1-2 months	7 weeks
Interest Rates					
Short and long-term government security rates, policy variable rate	Same coverage as recommended.	Monthly	Daily, weekly, monthly	Dissemination as part of a high-frequency (e.g. monthly) publication	3 weeks after ref month
Money or interbank market rates and a range of deposit and lending rates	Same coverage as encouraged.	Monthly	Monthly	Dissemination as part of a high-frequency (e.g. monthly) publication	Same as above
Stock Market					
Share price index, as relevant	Two market indices are prepared and disseminated.	Monthly	Daily, weekly, monthly, and annual	Dissemination as part of a high-frequency (e.g. monthly) publication	Daily, weekly, monthly, and annual

External Sector

Coverage		Periodicity		Timeliness	
GDDS	Current Practice	GDDS	Current Practice	GDDS	Current Practice
Comprehensive Framework					
Balance of Payments					
Producing and disseminating comprehensive data on the main aggregates and balancing items of the balance of payments, including e.g. imports and exports of goods and services, trade balance, income and transfers, current account balance, reserves and other financial transactions, and overall balance, with detailed components as relevant.	Broadly based on the fifth edition of the IMF's <i>Balance of Payments Manual</i> . Although offshore financial and nonfinancial banks and enterprises are treated as residents, their cross-border transactions are not included in BOP. Incomplete coverage of income, direct investment, and non-cash transactions. No estimates made for illegal transactions.	Annual	Annual and Quarterly (disseminated annually)	6-9 months	Annual = 9-10 months Quarterly = 7-15 months
<i>International Investment Position (IIP)</i>	<i>Partial coverage only- loans, currency and deposits, and reserve assets.</i>	Annual	Annual	6-9 months	7 months. Disseminated only in the IMF <i>Balance of Payments Statistics Yearbook</i>
Data Categories and Indicators					
Balance of Payments Aggregates					
Imports and exports of goods and services, current account balance, reserves, overall balance	Broadly same coverage as recommended. See also Balance of Payments Comprehensive Framework above.	Annual (Quarterly encouraged)	Annual and Quarterly (disseminated annually)	6 months	Annual: 9-10 months. Quarterly = 7-15 months
External Debt and Debt Service ^{1/}					
Public and publicly guaranteed external debt outstanding (with maturity breakdown)	Broadly same coverage as recommended, but with no maturity breakdown. (Data disseminated by MOF.)	Quarterly	Annual	1-2 quarters	6-7 months
Public and publicly guaranteed debt service schedule	Same coverage as recommended. (Data disseminated by MOF.)	Twice yearly (with data for 4 quarters and 2 semesters ahead)	Annual (with data for one year ahead)	3-6 months	6-7 months
<i>Private external debt not publicly guaranteed</i>	<i>Same coverage as encouraged. (Data disseminated by MOF.)</i>	Annual	Annual	6-9 months	6-7 months
International Reserves					
Gross official reserves denominated in U.S. dollars	Same coverage as recommended. Denominated in both U.S. dollars and Mauritius rupees.	Monthly	Monthly	1-4 weeks	7 weeks
<i>Reserve related liabilities</i>	<i>Not available.</i>	Monthly	<i>Not applicable</i>	1-4 weeks	<i>Not applicable</i>

External Sector

Coverage		Periodicity		Timeliness	
GDDS	Current Practice	GDDS	Current Practice	GDDS	Current Practice
Merchandise Trade					
Total exports and total imports	Data compiled according to General Trade System, but official trade statistics exclude exports and imports of the free port zone. Commodities classified under both Harmonized and SITC systems.	Monthly	Quarterly and Annual	8 weeks-3 months	Quarterly: 3 months Annual: 6 months
<i>Major commodity breakdowns with longer time lapse</i>	<i>Same coverage as encouraged.</i>	<i>Monthly</i>	<i>Same as above</i>	<i>8 weeks-3 months</i>	<i>Same as above</i>
Exchange Rates					
Spot rates	Same coverage as recommended.	Daily	Daily, Monthly, and Annual	Dissemination as part of a high-frequency (e.g. monthly) publication	Same day for daily data on website; 3 weeks for monthly and annual data in the BOM <i>Monthly Statistical Bulletin</i> ; 3-4 months for monthly and annual data in the BOM <i>Annual Report</i> .

^{1/}The external debt data category reflects the decision of the Executive Board of the IMF in March 2000 to enhance the GDDS. Individual country presentations will be revised to reflect the enhancements as they are updated over time. Provisional information on external debt data, if available, is shown with the metadata for balance of payments and central government debt.

Table 3. Plans for Improvement³¹

Central Statistics Office

	Timeframe	Technical Assistance, Financing Needs, Other Prerequisites
General Plans for Improvement		
Introduction ISIC Rev. 3 for the classification of economic activities, CPC for the product classification, and the concepts and methods of "1993 SNA".		
National Accounts Aggregates		
Construct a Supply and Use table for 1997 and move the base year to 1997.	Short-term	(1) Financing to renew software package license, (2) technical assistance for use software.
Compile Social Accounting Matrix relating to 1997.	Short-term	Same as above and (3) technical assistance on modeling for analysis SAM.
Produce quarterly accounts on a regular basis for internal use as these data will be kept under study for at most three years.	Medium-term	
Annual compilation of Supply and Use tables	Medium-term	
Census of Agriculture and Livestock to update input structure	Medium-term	
Production Index		
Compile and publish production index on a quarterly basis.	Medium-term	Two staff and technical assistance.
Price Indices		
Expand PPI-Manufacturing to cover full manufacturing activities.	Short-term	
Calculate lowest level CPI indices as a geometric average of price relatives instead of the arithmetic average.	Short-term	
Review and confirm methodology of seasonal adjustment for computing the vegetables index in CPI calculation.	Short-term	
Change weights and base of PPI-Manufacturing to 1997 to reflect results of the 1997 Census of Economic Activities.	Short-term	
Introduce COICOP classification of commodities to CPI.	Short-term	

³¹ Plans of the authorities as of July 2001.

Central Statistics Office

	Timeframe	Technical Assistance, Financing Needs, Other Prerequisites
Integrate exported production in computation of PPI-Manufacturing.	Medium-term	
Labour Market Indicators		
Review unemployment estimates on the basis of population census data for 2000.	Short-term	
Consider extending the coverage of September surveys of Employment, Earnings, and Hours of work to the Island of Rodrigues.	Short-term	
Rebase the Wage rate index using industry earnings data from the March 2000 survey and employment by occupation data from the 2000 Population Census.	Short-term	
Fiscal		
Publish consolidated general government data within 6 months of the end of the reference year.	Short-term	
Prepare plan for migration to the <i>GFSM 2001</i> concepts and methods.	Short-term	Staff to attend GFS course at IMF headquarters. See also MOF.
Coordinate efforts with the Ministry of Finance (MOF) to reduce the lag in the dissemination of consolidated central government data.	Medium-term	See also MOF.
Compile and publish public sector GFS.	Medium-term	Technical assistance may be useful.
External Debt and Debt Service		
Disseminate external debt data by currency of denomination, maturity, and type of borrower.	Short-term	
Merchandise Trade		
Reduce time lag of publication of quarterly data from three months to seven weeks.	Short-term	
Compile and publish data on freight and insurance.	Medium-term	
Integrate transactions of the Freeport in external trade statistics.	Medium-term	
Publish monthly data on trade statistics (major indicators) with a time lag of seven weeks.	Medium-term	

Bank of Mauritius

	Timeframe	Technical Assistance, Financing Needs, Other Prerequisites
General Plans for Improvement		
Implement the methodological standard recommended in the IMF's <i>Monetary and Financial Statistics Manual (MFSM)</i> as soon as possible. In particular: <ul style="list-style-type: none"> expand the coverage of monetary statistics to include all depository corporations, including the Post Office Savings Bank, offshore banks, and all nonbank deposit taking institutions; compile sectoral balance sheets and the Central Bank Survey, the Other Depository Corporations Survey, and the consolidated Depository Corporations Survey; redesign the reporting framework for the depository corporations to meet the <i>MFSM</i>'s requirements regarding the classification and sectorization of accounts and the accounting and valuation rules. 	Medium-term	Short-term technical assistance for implementation.
Broad Money and Credit Aggregates		
Central Bank Aggregates		
Disseminate reserve money and related indicators within two weeks of the reference month.	Short-term	
Balance of Payments Aggregates		
Begin publishing quarterly balance of payments on a quarterly basis, with a timeliness of 6 months (with effect from Q1, 2001 data).	Short-term	
Adjust data on reserve assets to remove changes in prices and exchange rates (with effect from Q1 2001 data).	Short-term	
Amend the national classification of other investments to that used in <i>BPM5</i> (with effect from Q1 2001 data).	Short-term	
Amend the format of the national presentation of BOP statistics to improve its accessibility by users (with effect from Q1 2001 data).	Short-term	
Disseminate more detailed balance of payments statistics showing: (i) <i>BPM5</i> services components, including passenger fees and freights (with effect from Q1 2000 data); and (ii) portfolio investment assets and liabilities, broken down into debt and equity securities (with effect from Q3 2001 data).	Short-term	
Prepare written documentation on compilation procedures.	Short-term	

Bank of Mauritius

	Timeframe	Technical Assistance, Financing Needs, Other Prerequisites
Improve coverage of balance of payments statistics by including/expanding data on: (i) repairs on goods; (ii) services transactions of banks; (iii) interest income of banks; (iv) compensation of employees; (v) workers' remittances transacted through the banks; and (vi) migrants' transfers in kind (with effect from Q3 2001 data).	Short-term	
Distinguish between insurance claims and premiums and adjust data on insurance services and current transfers accordingly (with effect from Q3 2001 data).	Short-term	
Explore possible establishment of a survey of enterprises, banks, and other financial institutions, both onshore and offshore, for all financial claims on and liabilities to nonresidents (both transactions, in cash and in kind, and stock positions), to cover all components of the Financial Account and income, including direct investment income from reinvested earnings.	Medium term	In cooperation with: the Ministry of Finance, the Ministry of Economic Development, Financial Services and Corporate Affairs; the Central Statistics Office; and the Mauritius Offshore Business Activities Authority.
Explore possible data sources for current and capital transfers in kind received by NGOs	Medium-term	
External Debt and Debt Service		
Reformat the external debt data table in the "Annual Report" of the BOM to include external debt of non-financial public enterprises and financial public corporations.	Short-term	
International Reserves		
Release weekly data on gross international reserves.	Short-term	

Ministry of Finance

	Timeframe	Technical Assistance, Financing Needs, Other Prerequisites
General Plans for Improvement		
Publish actual quarterly data on budgetary central government accounts.	Short-term	
Prepare plan for migration to the <i>GFSM 2001</i> concepts and methods.	Short-term	Staff to attend GFS course at IMF headquarters. See also CSO.
Streamline the presentation of accounts by public sector bodies and harmonize their accounting periods with those of the central government	Medium-term	

Ministry of Finance

	Timeframe	Technical Assistance, Financing Needs, Other Prerequisites
government.		
Include data on main extra-budgetary funds and social security in the central government accounts and post them on the MOF website on a quarterly basis.	Medium-term	
Coordinate efforts with the CSO to reduce the lag in the dissemination of consolidated central government data.	Medium-term	See also CSO.
Central Government Budgetary Aggregates		
Release quarterly data on budgetary central government aggregates beginning in financial year 2001/2002 and covering data at least since 1998/99.	Short-term	
Disseminate quarterly data each quarter within 3 months of the end of the reference quarter.	Short-term	
Central Government Debt		
Release (on the MOF website) data on debt service (interest and amortization) of central government twice a year, with a timeliness of up to 6 months after the end of the reference date.	Short-term	
Classify outstanding data on external debt of central government and public sector corporations by currency, and type of borrower and creditor.	Short-term	
Publish quarterly data on outstanding external debt and debt servicing of the central government, public sector corporations, and the private sector as from financial year 2001/2002 on the MOF website.	Short-term	See also BOM and CSO.
External Debt and Debt Service		
Develop a plan to produce a maturity breakdown for the external debt data. Implement the plan to produce a maturity breakdown for external debt data.	Short-term Medium-term	

Main Features of the General Data Dissemination System

This Technical Appendix contains a highly condensed description of the General Data Dissemination System (GDDS). More details on the GDDS can be found on the IMF's Dissemination Standards Bulletin Board (DSBB) on the Internet at <http://dsbb.imf.org>.

1. *Data Coverage, Periodicity, and Timeliness:* Dissemination of reliable, comprehensive, and timely economic, financial, and socio-demographic data is essential to the transparency of macroeconomic performance and policy.

The GDDS contains specific recommendations concerning coverage, periodicity, and timeliness for both comprehensive frameworks as well as data categories and indicators (see Table 2).

2. *Quality:* Data quality must have a high priority. Data users must be provided with information to assess quality and quality improvements.

The GDDS recommends:

- Dissemination of documentation on methodology and sources used in preparing statistics.
 - Dissemination of component detail, reconciliations with related data, and statistical frameworks that support statistical cross-checks and provide assurance of reasonableness.
3. *Integrity:* To fulfill the purpose of providing the public with information, official statistics must have the confidence of their users. In turn, confidence in the statistics ultimately becomes a matter of confidence in the objectivity and professionalism of the agency producing the statistics. Transparency of practices and procedures is a key factor in creating this confidence.

The GDDS, therefore, recommends:

- Dissemination of the terms and conditions under which official statistics are produced, including those relating to the confidentiality of individually identifiable information.
- Identification of internal government access to data before release.
- Identification of ministerial commentary on the occasion of statistical releases.
- Provision of information about revisions and advance notice of major changes in methodology.

4. *Access by the public:* Dissemination of official statistics is an essential feature of statistics as a public good. Ready and equal access by the public is principal requirements.

The GDDS recommends:

- Dissemination of advance release calendars.
- Simultaneous release to all interested parties.

5. *Plans for improvement.* The GDDS recommends that plans for improvement be developed for all areas in which shortcomings exist and that these plans be disseminated.

The GDDS also recommends that any needs for assistance be identified in the metadata. This may also be helpful for donors and technical assistance providers to prioritize their activities.

6. For each participating member country, the GDDS metadata provide descriptions of the dimensions listed above together with plans for improvement and needs for assistance. This information is posted on the DSBB; participating countries are encouraged to also post the metadata on their national websites.

7. A detailed description of the GDDS can be found on the DSBB Internet site indicated above.

Overview of the Data Quality Assessment Framework

1. Work toward a framework for assessing the quality of data has been underway in STA for some time. This initiative responds to a number of needs, in particular, to complement the focus on dissemination in the SDDS and GDDS, to focus more closely on the quality of the data provided by countries to the IMF that underpin surveillance of their economic policies, and to assess evenhandedly the quality of the information available as complement to the IMF's Reports on the Observance of Standards and Codes (ROSCs). Against this background, STA has developed a tool that provides a structure and a common language for efforts to assess data quality and establishes a link with the SDDS and GDDS. This data quality assessment framework comprises a generic framework that brings together internationally accepted core principles for official statistics and serves as the overarching best practice frame of reference for the dataset specific frameworks (for national accounts, prices, government finance, monetary, and balance of payments statistics).

2. These dimensions recognize that data quality is a multifaceted concept encompassing the quality of the institution or system behind the production of the data as well as the quality of the individual data product. The Data Quality Assessment Framework (DQAF) encapsulates principles of quality organized from the more abstract (dimension) to the more specific (indicator of desirable statistical practices). It covers five dimensions of quality that provide a common frame of reference for the assessment of data quality across countries and data sets within each country. The following are the main statistical practices that are associated with each dimension:

- Prerequisites of quality—environment is supportive of statistics; resources are commensurate with the needs of statistical programs; and quality is recognized as a cornerstone of statistical work.
- Integrity—professionalism in statistical policies and practices is a guiding principle; statistical policies and practices are transparent; and statistical processes are guided by ethical standards.
- Methodological soundness—concepts and definitions used are in accord with standard statistical frameworks; the scope of the data is in accord with internationally accepted standards; classification and sectorization systems are in accord with internationally accepted standards; and flows and stocks are valued and recorded according to internationally accepted standards.
- Accuracy and reliability—source data available provide an adequate basis to compile statistics; statistical techniques employed conform to sound statistical procedures; and source data are regularly assessed and results validated, and revisions as a gauge of reliability, are tracked and mined for the information they may provide.
- Serviceability—statistics cover relevant information on the subject field; timeliness and periodicity follow internationally accepted dissemination standards; statistics are consistent over time, internally, and with major data systems; and data revisions follow a regular and publicized procedure.

- **Accessibility**—statistics are presented in a clear and understandable manner, forms of dissemination are adequate, and statistics are made available on an impartial basis; up-to-date and pertinent metadata are made available; and prompt and knowledgeable support service is available.

Data Quality Assessment Framework—Generic Framework
(Draft as of end March 2001)

Quality Dimensions	Elements	Indicators
<p>0. Prerequisites of quality¹¹</p>	<p>0.1 Legal and institutional environment – <i>The environment is supportive of statistics.</i></p> <p>0.2 Resources – <i>Resources are commensurate with needs of statistical programs.</i></p> <p>0.3 Quality awareness – <i>Quality is recognized as a cornerstone of statistical work.</i></p>	<p>0.1.1 The responsibility for collecting, processing, and disseminating statistics is clearly specified.</p> <p>0.1.2 Data sharing and coordination among data producing agencies are adequate.</p> <p>0.1.3 Respondents' data are to be kept confidential and used for statistical purposes only.</p> <p>0.1.4 Statistical reporting is ensured through legal mandate and/or measures implemented to encourage voluntary response.</p> <p>0.2.1 Staff, financial, and computing resources are commensurate with institutional programs.</p> <p>0.2.2 Measures to ensure efficient use of resources are implemented.</p> <p>0.3.1 Processes are in place to focus on quality, to monitor the quality of the collection, processing, and dissemination of statistics, to acknowledge and deal with tradeoffs within quality, and to guide planning for existing and emerging needs.</p>
<p>1. Integrity</p> <p><i>The principle of objectivity in the collection, processing, and dissemination of statistics is firmly adhered to.</i></p>	<p>1.1 Professionalism – <i>Professionalism in statistical policies and practices is a guiding principle.</i></p> <p>1.2 Transparency – <i>Statistical policies and practices are transparent.</i></p> <p>1.3 Ethical standards – <i>Policies and practices are guided by ethical standards.</i></p>	<p>1.1.1 Statistics are compiled on an impartial basis.</p> <p>1.1.2 Choices of sources and statistical techniques are informed solely by statistical considerations.</p> <p>1.1.3 The appropriate statistical entity is entitled to comment on erroneous interpretation and misuse of statistics.</p> <p>1.2.1 The terms and conditions under which statistics are collected, processed, and disseminated are available to the public.</p> <p>1.2.2 Internal governmental access to statistics prior to their release is publicly identified.</p> <p>1.2.3 Products of statistical agencies/units are clearly identified as such.</p> <p>1.2.4 Advance notice is given of major changes in methodology, source data, and statistical techniques.</p> <p>1.3.1 Guidelines for staff behavior are clear and publicized.</p>

Quality Dimensions	Elements	Indicators
<p>2. Methodological soundness</p> <p><i>The methodological basis for the statistics follows international standards, guidelines, or agreed practices.</i></p>	<p>2.1 Concepts and definitions – <i>Concepts and definitions used are in accord with standard statistical frameworks.</i></p> <p>2.2 Scope – <i>The scope is in accord with internationally accepted standards.</i></p> <p>2.3 Classification/sectorization – <i>Classification and sectorization systems are in accord with internationally accepted standards.</i></p> <p>2.4 Basis for recording – <i>Flows and stocks are valued and recorded according to internationally accepted standards.</i></p>	<p>2.1.1 The overall structure in terms of concepts and definitions follows international standards, guidelines, or agreed practices: see dataset-specific framework.</p> <p>2.2.1 The scope is broadly consistent with international standards, guidelines, or agreed practices: see dataset-specific framework.</p> <p>2.3.1 Classification/ sectorization systems used are broadly consistent with international standards, guidelines, or a agreed practices: see dataset-specific framework.</p> <p>2.4.1 Market prices are used to value flows and stocks.</p> <p>2.4.2 Recording is done on an accrual basis.</p> <p>2.4.3 Grossing/netting procedures are broadly consistent with international standards, guidelines, or agreed practices.</p>
<p>3. Accuracy and reliability</p> <p><i>Source data and statistical techniques are sound, and output data sufficiently portray reality.</i></p>	<p>3.1 Source data – <i>Source data available provide an adequate basis to compile statistics.</i></p> <p>3.2 Statistical techniques – <i>Statistical techniques employed conform with sound statistical procedures.</i></p> <p>3.3 Assessment and validation – <i>Source data are regularly assessed and results validated.</i></p> <p>3.4 Revision studies – <i>Revisions, as a gauge of reliability, are tracked and mined for the information they may provide.</i></p>	<p>3.1.1 Source data are collected from comprehensive data collection programs that take into account country-specific conditions.</p> <p>3.1.2 Source data reasonably approximate the definitions, scope, classifications, valuation, and time of recording required.</p> <p>3.1.3 Source data are timely.</p> <p>3.2.1 Data compilation employs sound statistical techniques.</p> <p>3.2.2 Other statistical procedures (e.g., data adjustments and transformations, and statistical analysis) employ sound statistical techniques.</p> <p>3.3.1 Source data—including censuses, sample surveys and administrative records—are routinely assessed, e.g., for coverage, sample error, response error, and non-sampling error; the results of the assessments are monitored and made available to guide planning.</p> <p>3.3.2 Main intermediate results are validated against other information where applicable.</p> <p>3.3.3 Statistical discrepancies and other potential indicators of problems in statistical outputs are investigated and made available to guide users.</p> <p>3.4.1 Studies and analyses of revisions are carried out routinely and used to inform statistical processes.</p> <p>3.4.2 Revision studies and analyses are made public and used to guide data users.</p>

Quality Dimensions	Elements	Indicators
<p>4. Serviceability</p> <p><i>Statistics are relevant, timely, consistent, and follow a predictable revisions policy.</i></p>	<p>4.1 Relevance – <i>Statistics cover relevant information on the subject field.</i></p> <p>4.2 Timeliness and periodicity – <i>Timeliness and periodicity follow internationally accepted dissemination standards.</i></p> <p>4.3 Consistency – <i>Statistics are consistent over time, internally, and with major data systems.</i></p> <p>4.4 Revision policy and practice – <i>Data revisions follow a regular and publicized procedure.</i></p>	<p>4.1.1 Processes to monitor the relevance and practical utility of existing statistics in meeting users' needs are in place.</p> <p>4.2.1 Periodicity follows dissemination standards. 4.2.2 Timeliness follows dissemination standards.</p> <p>4.3.1 Statistics are consistent or reconcilable over a reasonable period of time. 4.3.2 Statistics are internally consistent (e.g., accounting identities observed). 4.3.3 Statistics are consistent or reconcilable with those obtained through other data sources and/or statistical frameworks.</p> <p>4.4.1 Revisions follow a regular, well-established and transparent schedule. 4.4.2 Preliminary data are clearly identified. 4.4.3 Studies and analyses of revisions are carried out routinely and made public.</p>
<p>5. Accessibility</p> <p><i>Data and metadata are easily available and assistance to users is adequate.</i></p>	<p>5.1 Data accessibility – <i>Statistics are presented in a clear and understandable manner, forms of dissemination are adequate, and statistics are made available on an impartial basis.</i></p> <p>5.2 Metadata accessibility – <i>Up-to-date and pertinent metadata are made available.</i></p> <p>5.3 Assistance to users – <i>Prompt and knowledgeable support service is available.</i></p>	<p>5.1.1 Statistics are presented in a way that facilitates proper interpretation and meaningful comparisons (layout and clarity of text, tables, and charts). 5.1.2 Dissemination media and formats are adequate. 5.1.3 Statistics are released on a pre-announced schedule. 5.1.4 Statistics are made available to all users at the same time. 5.1.5 Non-published (but non-confidential) sub-aggregates are made available upon request.</p> <p>5.2.1 Documentation on concepts, scope, classifications, basis of recording, data sources, and statistical techniques is available, and differences from international standards are annotated. 5.2.2 Different levels of detail are provided depending on intended audience and type of collection.</p> <p>5.3.1 Contact person for each subject field is publicized. 5.3.2 Catalogues of publications, documents, and other services, including information on any charges, are widely available.</p>

¹¹ The elements and indicators included here bring together the “pointers to quality” that are applicable across the five identified dimensions of data quality.

Users' Views

With the assistance of the authorities, and as a complement to the Fund staff's own assessment of the quality of Mauritius's macroeconomic statistics, the mission that visited Port Louis during July 18-31, 2001 conducted an informal survey among 13 categories of users. Public sector agencies were strongly represented in the group that received a questionnaire. Some of the user categories are fairly heterogeneous: for instance, several educational institutions are among the extra-budgetary units, along with development corporations. The nonfinancial public enterprises group covered both market producers and agencies with a public regulatory mandate.

In comparison with similar surveys conducted in other countries, the response rate was very good: 44 percent, excluding those responses saying that macroeconomic statistics are not relevant for the recipient of the questionnaire. The table below shows that most users rate Mauritius's statistics as good or very good. Users are particularly pleased with the coverage and the detail provided by the statistics that they regularly consult. Users are more critical about the timeliness of the data, the explanations of the methodology used and, to a lesser extent, the accessibility of the data. Several users stated that it is difficult for them to have an informed opinion on the accuracy of the statistics.

The users took the opportunity to provide a large number of comments and suggestions; these are summarized below. Many comments received expressed the need for more leading indicators on the development of Mauritius's economy. Several suggestions were made to make more use of the Internet as a solution for the relative inconvenience of obtaining hard copy publications.

Percentage	84%		13%		57%		41%		79%		7%		79%		20%		71%		26%	
Total	52	8	35	25	49	4	49	12	44	16										
Unknown	2	0	1	1	2	0	2	0	0	2										
Foreign representation	4	0	1	3	4	0	3	1	4	0										
Consumer organizations																				
Trade unions																				
Non-financial public enterprises	10	4	7	7	12	0	11	3	12	2										
Extra-budgetary units	7	0	6	0	7	0	7	0	6	1										
Ministries	11	1	10	3	11	2	9	4	10	2										
Accountants	1	1	1	1	2	0	1	1	2	0										
Non-bank financial institutions	1	0	0	1	1	0	0	1	0	1										
Insurance companies	3	0	1	2	2	1	3	0	2	1										
Offshore banks	2	0	0	2	0	0	2	0	0	2										
Banks	8	1	6	3	5	1	7	2	5	4										
Business Associations	2	1	1	2	3	0	3	0	3	0										
Press etc.	1	0	1	0	0	0	1	0	0	1										
<p>4. Is the frequency (e.g. weekly, monthly, quarterly annual compilation) of these statistics satisfactory?</p> <p>➤ Yes</p> <p>➤ No</p>																				
<p>5. Is the timeliness (the delay of publication) of these Statistics satisfactory?</p> <p>➤ Yes</p> <p>➤ No</p>																				
<p>6. Is the accuracy of these statistics satisfactory?</p> <p>➤ Yes</p> <p>➤ No</p>																				
<p>7. Are the statistics easily-accessible to you?</p> <p>➤ Yes</p> <p>➤ No</p>																				
<p>8. Is the methodology of the statistics well-explained?</p> <p>➤ Yes</p> <p>➤ No</p>																				

		39%	48%	13%	80%	3%	0%
<i>Percentage</i>							
Total		24	30	8	49	2	0
Unknown		1	1	0	1	0	0
Foreign representation		3	1	1	3	0	0
Consumer organizations							
Trade unions							
Non-financial public enterprises		1	11	1	13	0	0
Extra-budgetary units		3	3	1	6	0	0
Ministries		7	5	4	8	1	0
Accountants		0	1	0	2	0	0
Non-bank financial institutions		0	0	0	1	0	0
Insurance companies		2	1	0	3	0	0
Offshore banks		1	1	0	2	0	0
Banks		4	5	1	6	1	0
Business Associations		2	1	0	3	0	0
Press etc.		0	0	0	1	0	0
<p>9. Would you need other macroeconomic statistics that are not currently compiled in Mauritius?</p> <p>➤ Yes</p> <p>➤ No</p>							
<p>10. What is your overall assessment of Mauritius's Statistics?</p> <p>➤ Very good</p> <p>➤ Good</p> <p>➤ Unsatisfactory</p> <p>➤ Bad</p>							

Comments Given by Users³²

More detail required:

- Fiscal statistics (2)
- Employment and earnings statistics
- Monetary statistics
- Consumption by type
- Financial sector in national accounts
- Shares and debentures in banking sector by category and sector
- Cost data for the construction industry
- Prices and labor for categories in construction
- Sex distribution of memberships of cooperatives
- Farm gate, auction sale and retail market prices for fresh fruits and vegetables
- Detailed statistics on employment
- Distinguish small and medium enterprises in national accounts
- Trade statistics should give breakdown by country
- Trade statistics should distinguish between regimes (EPZ, Freeport, Pioneer, etc)

Greater periodicity requested:

- National accounts (quarterly accounts) (3)
- Employment and earnings
- All statistics
- Balance of payments
- Monetary statistics
- Price and volume of fresh fruits and vegetables

Publication too late:

- Balance of Payments (4)
- Fiscal statistics (3)
- Foreign trade statistics (2)
- Insurance statistics
- Industrial sector
- Employment survey

Other statistics needed:

- Leading indicators (including retail sales index, debt indicators, asset prices) (2)
- Production indices for all industries (2)
- Tourism satellite accounts (2)
- Foreign direct investment (broken down by countries and sectors) (2)
- Unemployment
- Statistics on training

³² Between parentheses: number of similar comments received.

- Orders in textile industry
- Indices on the competitiveness of industry
- Booking level at hotels
- Imports/exports by currency
- Property
- Customs duties by Harmonized System (HS) codes
- FAO fishery statistics
- Land utilization statistics
- Basic average wage
- Green accounts
- Country risk statistics
- Consumption of durables
- Indices on domestic violence and criminality

Suggestions:

- Improve presentation and analytical sections (2)
- Give comparative data for other island states in the region or for regions (COMESA, SADC, etc.) (2)
- Response time Internet connection is too slow (2)
- Have first publication of statistics on-line to avoid delays in preparing hard copies (2)
- Make more data available on-line
- Government Printer bookshop is not easily accessible; statistics should be on sale in main libraries
- Many people and institutions are not aware of existence of the statistics
- A publication telling what reports are currently available would be helpful
- Develop manuals on methodology used
- Compile table of contribution of sectors to GDP
- Methodology relating to fiscal statistics not always clear
- The methodological parts are too densely written
- Describe methodology of any forecast in detail; also give diagnostic with forecasts
- Explain unusual movements in statistics
- Longer time series for the national accounts
- Standardize the data on public finance published by the BOM, CSO, and Accountant General's Office
- Involve the private sector in the production of other statistics
- Have surveys on small enterprises more frequently than once every five years.

