

**IMMEDIATE
ATTENTION**

SM/02/108

April 9, 2002

To: Members of the Executive Board

From: The Secretary

Subject: **Mauritius—Report on the Observance of Standards and Codes—
Data Module**

Attached for the information of the Executive Directors is the data module of the report on the observance of standards and codes for Mauritius. The authorities' response to the report is contained in SM/02/108, Supplement 1 (4/9/02).

It is expected that this report will be posted on the Fund's external website after April 16, 2002.

Questions may be referred to Mr. Enoch, STA (ext. 35372) and Mr. Gorter, STA (ext. 36458).

Att: (1)

Other Distribution:
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INTERNATIONAL MONETARY FUND

MAURITIUS

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

Prepared by the Statistics Department

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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 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 Resources	O	O	LNO	O	O		0.2 Short-term: Duplication of efforts in data collection will be reviewed (GFS).
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>BPMS</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 = Compiles 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*.