

**IMMEDIATE
ATTENTION**

SM/02/104
Supplement 2

April 5, 2002

To: Members of the Executive Board

From: The Secretary

Subject: **Botswana—Report on the Observance of Standards and Codes—Data
Module—Detailed Assessments Using the Data Quality Assessment
Framework**

The attached supplement to the data module of the report on the observance of standards and codes for Botswana (SM/02/104, 4/5/02) relates to detailed assessments using the data quality assessment framework and is circulated for the information of the Executive Directors.

It is expected that this report will be posted on the Fund's external website after April 12, 2002.

Questions may be referred to Mr. Raymond, STA (ext. 37980).

Att: (1)

Other Distribution:
Department Heads

INTERNATIONAL MONETARY FUND

BOTSWANA

Detailed Assessment Using the Data Quality Assessment Framework

Prepared by the Statistics Department

April 5, 2002

This document contains a detailed assessment by dataset of the elements and indicators that underlie the data quality dimensions discussed in Botswana's Report on the Observance of Standards and Codes (ROSC)—Data Module. Botswana's current data dissemination practices against the General Data Dissemination System (GDDS), background information on the GDDS and the Special Data Dissemination Standard (SDDS), the generic framework used for the assessment of the quality of Botswana's macroeconomic statistics, and the results of the users' survey are also included as appendices.

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ACRONYMS

<i>1968 SNA</i>	<i>1968 System of National Accounts</i>
<i>1986 GFS Manual</i>	<i>1986 Government Finance Statistics (IMF)</i>
<i>1993 SNA</i>	<i>1993 System of National Accounts</i>
AD	Accounting Department (BoB)
AGD	Accountant General Department (MFDP)
BAD	Budget Administration Division (MFDP)
BD	Banking Department (BoB)
<i>BFS</i>	<i>Botswana Financial Statistics (BoB)</i>
BoB	Bank of Botswana
BoBCs	Bank of Botswana's certificates
BOP	Balance of Payments
BOPS	Balance of Payments Section (BoB)
<i>BPM5</i>	<i>Balance of Payments Manual (5th Edition)</i>
BSE	Botswana Stock Exchange
BSIC	Botswana Standard Industrial Classification
BSIC 3	Botswana Standard Industrial Classification Revision 3
c.i.f.	cost of insurance and freight
CCA	Common Customs Area
CFU	Cash Flow Unit (MFDP)
CMC	Census of Manufacturing and Construction
COFOG	Classification of the Functions of the Government
COICOP	Classification of Individual Consumption by Purpose
CPA	Classification of Products by Activity
CPC	Central Product Classification
CPD	Census of Production and Distribution
CPI	Consumer Price Index
CSO	Central Statistics Office
DFID	Department of International Development (United Kingdom)
DQAF	Data Quality Assessment Framework
DSBB	Dissemination Standards Bulletin Board
EER	Enterprise and Establishment Register
ERE/TES	Equilibre ressources-emplois/tableau entrées-sorties (Program for automatic compilation of national accounts)
EUROSTAT	Statistical Office of the European Communities
FISIM	Financial Intermediation Services Indirectly Measured
f.o.b.	free on board
GDDS	General Data Dissemination System
GDP	Gross Domestic Product
GFS	Government Finance Statistics
<i>GFSY</i>	<i>Government Finance Statistics Yearbook</i>

GG	General Government
HIES	Household Income and Expenditure Survey
IIP	International Investment Position
IMF	International Monetary Fund
ISIC	International Standard Classification of All Economic Activities
ISIC 3	International Standard Classification of All Economic Activities Revision 3
ISWGNA	Intersecretariat Working Group on National Accounts
ITRS	International Transactions Reporting System
MFDP	Ministry of Finance and Development Planning
MFMU	Money and Financial Markets Unit (BoB)
<i>MFSM</i>	<i>Monetary and Financial Statistics Manual</i> (IMF)
MLG	Ministry of Local Government
MoA	Ministry of Agriculture
MSS	Monetary Statistics Section (BoB)
NASSPP	National Accounts Statistical Survey Processing Package
NASU	National Accounts Statistics Unit (CSO)
NPISHs	Non-Profit Institutions Serving Households
ODCs	Other Depository Corporations
PPI	Producer Price Index
PSUs	Primary Sampling Units
QNA	Quarterly National Accounts
RD	Research Department (BoB)
ROSC	Report on the Observance of Standards and Codes
SACU	Southern African Customs Union
SADC	Southern African Development Community
SAM	Social Accounting Matrix
SDDS	Special Data Dissemination Standard
SISU	Statistics and Information Services Unit (BoB)
SITC	Standard Industrial Trade Classification
SNA	System of National Accounts
SPs	Statistical Package
SPSS	Statistical Package for Social Sciences
SRT	Survey of Recent Trends
STA	Statistics Department (IMF)
TEBA	The Employment Bureau of Africa
TGS	Technology and General Services Department (IMF)
TSU	Trade Statistics Unit (CSO)
UN	United Nations
WITs	Work Improvement Teams

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 Botswana officials. This information, which is organized along the lines of the generic DQAF (see Appendix III), was used to prepare the summary assessment of data quality elements, based on a four-part scale of observance, shown in Botswana's Report on the Observance on Standards and Codes (ROSC)—Data Module. This report was prepared by a mission from the IMF's Statistics Department that visited Gaborone during October 11–24, 2001.¹

I. NATIONAL ACCOUNTS 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 CSO is a Government Department of the Ministry of Finance and Development Planning (MFDP) operating within the legal framework of the Statistics Act (1967) of the Laws of Botswana.² Under the provisions of this Act (Cap. 17: 01), the MFDP defines statistical policy through the Permanent Secretary, and the Government Statistician—the Central Statistics Office's (CSO) head—programs the operations of the Department within the framework of that policy. Within this context, the Statistics Act authorizes the collection of source data for the compilation of official statistics including the national accounts, subject to the provisions of Act and to the directions of the Minister. The Government Statistician is responsible for the collection, tabulation, and analysis of these statistics and “may cause statistics or abstracts thereof to be published with or without observations thereon and in such manner as he may determine” (Section 8.1). Further, published statistics should be laid before the National Assembly within 14 days of publication. The CSO's responsibility for national accounts statistics is therefore clearly defined within its broader statutory mandate to collect, produce, and disseminate Botswana's official statistics.

¹ The mission team was led by Mr. Gérard G. Raymond and comprised of Messrs. Paul Austin, Johann Bjorgvinsson, José María Cartas, and Henri Hoozee (all STA), and David Hughes (expert).

² The CSO also operates within the guidelines of the Census Act (Cap.17:02) for conducting decennial population censuses.

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

In compiling the national accounts, the CSO draws on its internal data collection system (prices, merchandise trade, and industrial statistics), a survey/census based system for enterprises, and administrative sources including the Bank of Botswana (BoB), MFDP, the Ministry of Agriculture (MoA), the Ministry of Minerals, Energy, and Water Affairs (Department of Mining), other line ministries, and other government institutions. To promote effective data sharing and coordination, User-Producer Committees were established by the CSO in 1999 with a view to fostering improved communication between users and producers. However, the work of these committees, representing primarily the public sector (BoB, MFDP, Ministry of Commerce), have been stymied by infrequent meetings and low participation. A number of outstanding data sharing issues, including CSO's request to the BoB for disaggregated information on the services component of the current account of the balance of payments (BOP), suggest the need for a more effective data sharing mechanism among data producing agencies. Inter-agency contacts among staff of the CSO, BoB and the MFDP occur on an infrequent basis, and the CSO's planned shift to quarterly national accounts (QNA) may require the development of reporting formats and/or other effective data sharing mechanisms needed for the timely production of QNA.

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

All persons employed in the execution of any duty under the Statistics Act (or any regulation made there under) are required to sign a declaration of secrecy on entering upon duty. This provision of the Statistics Act also applies to non-CSO staff, including short- and long-term consultants. Breaches of the oath of secrecy and the use of insider information for personal gain are offenses punishable by the payment of a fine, imprisonment, or both.

The introduction of any new and revised formats for statistical enquiries (notably censuses, defined to include sample surveys in the Statistics Act) are advertised in the *Gazette* and are subject to statutory regulations. Questionnaires for the annual Census for Production and Distribution, the Census of Manufacturing and Construction (Statistics Regulations, 1972), and the Survey of Recent Trends (Statistics Regulations, 1999) inform respondents that individual responses are confidential, and are used for statistical purposes only.

The Statistics Act prohibits the dissemination of information (and its admission into evidence in any civil or criminal proceedings) "so arranged as to enable identification of such particulars with any person, undertaking, or business." without the prior written consent of the respondent. However, no formal aggregation rules exist to prevent indirect disclosure of individual data that could possibly arise if there is one enterprise in an industry or economic sector. While it may be possible to identify the operations of at least two large companies in the national accounts statistics, CSO staff indicated that the annual reports of these companies are published prior to the release of the national accounts. It would be useful for the CSO to request written consent in cases where deemed applicable.

Safeguards against unauthorized access to confidential databases and hard copy files exist. Collected data are kept in the appropriate offices, which are locked when not occupied. Only authorized staff are allowed access to the source data. Computer systems are similarly protected, and the CSO building is protected by security guards. All confidential forms are stored in iron safes with limited access, and are shredded on-site before disposal.

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

The Statistics Act (1967) 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, and following the authorizing officer's affirmation of the oath of secrecy prescribed by the agency involved. However, no person is required to supply information on technical processes or trade secrets. Statistical reporting is ensured through legal mandate, and refusal or neglect to provide information or making untrue statements are offences subject to the payment of a fine and/or imprisonment. The CSO does not have the right to inspect books and records, premises, and inventories of businesses or persons in case of noncompliance.

Apart from reference to the fact that under the Statistics Regulations, enterprises that have any difficulty in completing the form should write to the Government Statistician at least 10 days before the return deadline, there appears to be no information on contact persons on the Census of Production and Distribution (CPD) and Census of Manufacturing and Construction (CMC) forms. Notes on Completing the CPD/CMC questionnaires accompany the forms.

Current procedures for pursuing nonresponses include written reminders following the expiration of the deadline, telephone calls, and on-site visits by staff from both head office and the regional offices of the CSO; proactive methods to educate respondents on the importance of providing timely information are not used. Presently, hard copy questionnaires are sent to respondents; they are not allowed the option of submitting their responses in either hard copy or electronic format.

0.2 Resources

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

The National Accounts Statistics Unit (NASU) of the Economic Statistics Division I has a staffing of nine comprising a unit head, three statisticians, one statistical officer (diploma level), and four nonprofessional staff assigned to data collection and data entry operations. Regional offices provide support for source data collection. While the number of staff employed in the NASU are deemed by the CSO as adequate for their present tasks, preparations for Census 2001 have involved NASU staff, resulting in delays in the national accounts work program. Staff training in national accounts methodology is inadequate. External training and attendance at seminars that require domestic funding are subjected to an

arduous approval process, and in-house training falls within the responsibility of the Manpower Development Section of the MFDP. With adequate training, procedural tasks, such as editing of the survey questionnaires now done by statisticians, could be redirected to staff at lower levels. None of the present professional staff in the NASU have participated in the IMF Institute's course in National Accounts Statistics.³ The retention of a core of skilled national accountants remains a challenge due to staff departures and the staff rotation policy of the CSO, and development work may stretch existing staff resources.

Hardware computing resources are commensurate with institutional functions, and a program for staff training in computing skills exists. In December 1999, the CSO embarked on the implementation of the *Equilibre resource-emplois/tableau entrées-sorties* (ERE/TES) software package to assist in the generation of national accounts based on the *1993 System of National Accounts (1993 SNA)*.⁴ Originally developed in French by the Statistical Office of the European Communities (EUROSTAT), the full installation of the software and staff training in its use are being done by a Luxembourg-based consultancy group. The target project duration of 14 months has not been met, and the project has now been extended for an additional year. Finalization of the comprehensive national accounts have been affected by system upgrades of the National Accounts Statistics Survey Processing Package (NASSPP). Developed in the 1970s using COBOL language, the NASSPP needed to be rewritten in Microsoft Access, and a consultancy firm was engaged in mid-November 1999 to undertake the task. This upgrade has been completed and will allow for a transition to the Botswana Standard Industrial Classification Revision 3 (BSIC 3), commencing with the 1996/97 national accounts.

0.2.2 Measures to ensure efficient use of resources are implemented.

The CSO undertakes an annual review of its resources in the context of budgetary planning for the following year and in accordance with the national statistical priorities identified by the government.

At a departmental level, CSO's line managers are responsible for implementing measures to ensure efficient use of resources. Work Improvement Teams (WITs)—a governmental initiative—were launched in 1998 but were not fully effected in the CSO.

The use of ERE/TES to advance the NASU's work in the transition to *1993 SNA* and the system upgrade of the NASSPP represent important initiatives aimed at effecting resource

³ However, the CSO was represented at a training course in the 1993 SNA organized by the IMF in Abidjan, Cote d'Ivoire, in early 2000.

⁴ Features of the ERE/TES software are identified in *SNA News and Notes* Issue 5, January 1997 (www.un.org/Depts/unsd/sna/sna5-en.htm).

savings. Further, the computerization of databases of Government Ministries and Departments through a project known as the Government Data Network has commenced, and the CSO intends, in the medium/long term, to be able to have electronic access to this network that would facilitate efficient and timely access to administrative records. The electronic dissemination of statistical products on the CSO's Internet website (www.cso.gov.bw/cso), launched in 2000, has reduced staff hours spent on responding to data requests. As the CSO increasingly employs computing technology in its operations, a review of operational procedures and job assignments is merited.

With a view to compiling and disseminating QNA estimates in the long term, the CSO sought assistance from the United Kingdom's Department for International Development (DFID), which has played an important role in building statistical capacity in Botswana. A national accounts statistics mission visited Gaborone in 1999 and 2000.

0.3 Quality awareness

0.3.1 Processes are in place to focus on quality.

The Business Plan 1998–2001 provides a mission statement of objectives and targets that reflect a commitment to quality; in practice, specific processes and/or work programs to support these objectives are either limited or have not been effected.

0.3.2 Processes are in place to monitor the quality of the collection, processing, and dissemination of statistics.

The CSO's publication of its first Business Plan covering the period 1998–2001 grew out of a 1995 user-needs assessment, which provided users with the opportunity to suggest how the Government of Botswana could rearrange its statistical system with a view to improving its efficiency and ensuring sustainability. However, the postassessment momentum that engendered the creation of user-producer committees and the National Statistical Advisory Committee appears to have diminished, and these committees are now dormant. The quality of CSO publications are assessed by an in-house editorial committee prior to dissemination.

0.3.3. Processes are in place to deal with quality considerations, including trade-offs within quality, and to guide planning for existing and emerging needs.

Communication between the CSO and its main (government) users have taken place on quality issues, as demonstrated in the latter's involvement in assessing the output of the experimental QNA series. However, work programs do not include in-built mechanisms for quality improvements, e.g., while the CSO identifies the transition to 1993 SNA as an

objective, there is no comprehensive plan or time frames against which progress can be determined.⁵

1. Integrity

1.1 Professionalism

1.1.1 Statistics are compiled on an impartial basis.

The Statistics Act (1967) defines the role of the Minister in terms of statistical policy formulation but allows the independence of the Government Statistician in programming the operations within the framework of that policy. Professionalism is promoted by participation in conferences, and the CSO is represented on SADC's subcommittee on national accounts. Plans for strengthening research and analytical capabilities in statistical methodologies are at a formative stage.

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

The choices of sources and statistical techniques are informed by statistical considerations. However, the CSO is not free to collect any mandatory statistics until regulations have been made by the Minister and gazetted in the National Assembly prescribing the format and content of information to be collected, and the target enumerative group.

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

The Government Statistician usually comments on erroneous interpretation or the misuse of statistics. However, formal entitlement (or prohibition) is not assigned by any statutory regulation.

⁵ The CSO has adopted the United Nations' (UN) milestone approach, consistent with the regional national accounts work program of the Southern African Development Community (SADC). However, it is instructive to note that at its thirty-first session in 2000, the Statistical Commission of the United Nations Economic and Social Council recognized that although the six milestones assessment had provided useful information regarding the implementation of 1993 SNA, it evaluated only one dimension of implementation, that is the number of accounts compiled, without regard to other important aspects of implementation, such as timeliness, reliability, conceptual adherence, etc.

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 (1967) and accompanying Statistics Regulations define the terms and conditions under which the CSO produces and disseminates official statistics. The Statistics Act is disseminated on the CSO's Internet website (www.cso.gov.bw/cso). CSO's statistical publications contains its email address and the URL location of its Internet website, and the Business Plan 1998–2001 sets out the CSO's mission statement and identifies key objectives and targets.

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

The parent ministry, MFDP, and BoB have access to the provisional annual Gross Domestic Product (GDP) estimates under embargo in December, pending its public release by the Minister of Finance and Development Planning on the occasion of the Budget Speech presentation in the National Assembly in February of the following year. The ad hoc provision of these estimates to government units is not made public. Consistency checks of the provisional data by the MFDP and by the BoB, as well as the provision of updated information during the interim period may result in revisions to the December estimates, but the CSO remains in control of the statistical process at all times.

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

Products of the CSO are clearly identified as such by its name and logo, and publications dedicated to the national accounts also identify the contact statistician and unit. National accounts tables reproduced in the BoB's publications identifies CSO as the source. CSO publications state that "extracts may be published if sources are duly acknowledged."

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

Advance public notice of major changes in methodology, source data, and statistical techniques are not usually given. However, the CSO has occasionally provided advance notice to its major government users, including the MFDP and the BoB. Users are alerted at the time the changes are made. Ad hoc changes relating to the implementation of 1993 SNA have not been preannounced and are a source of concern among users.

1.3 Ethical standards

1.3.1 Guidelines for staff behavior are in place and are well-known to the staff.

Ethical rules for CSO staff are laid down in the *General Order Covering the Conditions of Service of the Public Service of the Republic of Botswana* (1996) and subsequent Directives; all of which are published. Copies of the General Order are provided to staff on entry into the public service. The faithful and honest execution of duties of staff, the limitations on disclosure of information that comes to their knowledge by reason of employment, and the misuse of insider information for personal gain are addressed within the statutory framework of the Statistics Act (1967).

2. Methodological soundness

2.1 Concepts and definitions

2.1.1 The overall structure in terms of concepts and definitions follows internationally accepted standards, guidelines, or good practices.

The CSO's March 2000 publication *National Accounts Statistics of Botswana 1974/75–1994/95* presents the comprehensive annual national accounts based primarily on the concepts and definitions recommended by the *1968 SNA*.⁶ Changes are being made to align the accounts with the *1993 SNA*. Towards this end, the annual GDP estimates include certain elements of the *1993 SNA*, including an adjustment to the value of financial services by estimating financial intermediation services indirectly measured (FISIM), a classification of mineral exploration as gross fixed capital formation, and a revision of the classification and terminology of taxes.

2.2 Scope

2.2.1 The scope is broadly consistent with internationally accepted standards, guidelines, or good practices.

Consistent with its adoption of the UN's milestone approach for the implementation of *1993 SNA*, the CSO produces and disseminates annual data on:

- Final expenditures on GDP at current and constant prices
- GDP by activity at current and constant prices

⁶ In their first publication of the quarterly national accounts (QNA) in March 2001, the CSO has indicated that sources and methods are under review as better sources and estimation techniques are identified. The QNA is at a formative stage and is expected to become a standard statistical product—disseminated with a lag of one quarter after the end of the reference quarter—by the end of the national accounting year 2002. For most sectors, the quarterly estimates produced for 1993/94–1999/2000 were constrained to the annual estimates by benchmarking, though source data were derived from the quarterly Survey of Recent Trends (SRT), which was redesigned to meet *1993 SNA* requirements. The QNA is not assessed in this report but is referenced where applicable.

- Gross national income
- Production, income and outlay, and capital finance accounts by institutional sector

However, the sequence of the annual accounts ends with the capital finance account of the 1968 SNA vintage. The minimum requirements for the scope of System of National Accounts (SNA) tables and accounts, established by the Intersecretariat Working Group on National Accounts (ISWGNA), are not met. Quarterly GDP estimates—by activity and by expenditure—at current and constant prices are also produced.

The annual national accounts cover the full economic territory of the country, and the delimitation of the constituent units of the economy is in accordance with the 1968 SNA. In particular, territorial enclaves, such as embassies as well as foreign workers who work part of the year in Botswana are within the scope of the national accounts estimates.

In principle, the production boundary is in accordance with the 1968 SNA. However, own-account production of agriculture goods and mineral exploration are included as output; production of entertainment, literary or artistic originals are not included in the scope of Botswana's national accounts because these are 1993 SNA concepts.

The asset boundary is still in line with the 1968 SNA. Therefore, all defense related assets are treated as general government final consumption. The CSO does not use the work-in-progress concept for measuring crop production in its quarterly GDP estimates. Crops are recorded at the time of harvest in the annual national accounts. Intangible assets are not identified.

2.3 Classification/sectorization

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

Institutional units, transactions, and other flows follow broadly the 1968 SNA. The institutional sectors that comprise the total economy are grouped as follows:

- Central government
- Local governments
- Financial institutions
- Nonprofit institutions serving households (NPISHs)
- Private nonfinancial enterprises
- Nonfinancial **parastatal** organizations
- Households
- Rest of world

Industrial activities are classified according to the Botswana Standard Industrial Classification (BSIC), which is equivalent to the International Standard Classification of All Economic Activities (ISIC). The CSO is shifting to BSIC 3, equivalent to International Standard Classification of All Economic Activities Revision 3 (ISIC 3). Other classifications, such as Classification of Individual Consumption by Purpose (COICOP) and the Classification of the Functions of the Government (COFOG) are not used. The Standard International Trade Classification (SITC) is used to aggregate import and export data from the detailed Harmonized System classes.

2.4 Basis for recording

2.4.1 Market prices are used to value flows and stocks.

Valuation rules are in line with the 1968 SNA, except that imports of goods are valued f.o.b.⁷ Market output is recorded at producer prices (except diamonds), as are agricultural goods and capital formation produced for own final use. Intermediate and final consumption are valued at purchasers' prices.

The issue of output and inventory valuation of diamonds in the national accounts is primarily rooted in the nature of diamond valuation, which is itself a complex process that factors in the carat weight, clarity, color, and cut of the diamond.⁸ There are about 15,000 diamond grades, each with corresponding prices. The CSO collects quarterly data on the quantity of diamonds mined, but is unable to access price and production value information either from De Beers, the company given the exclusive right to mine diamonds in Botswana, or from the Department of Mines. The CSO uses the declared export price as the proxy for measuring the market value of output; the use of this proxy rests on the assumption that declared export prices reflect true market valuation. The Department of Mines has ceased publication of the estimated value of production of diamonds until "agreement is reached on a method of valuing diamond production" (as reported in the CSO's *Statistical Bulletin*).

2.4.2 Recording is done on an accrual basis.

In principle, all transactions are recorded on an accrual basis. However, the basic data for general government expenditure are on a cash basis, and no adjustments are made in the national accounts.

⁷ Merchandise trade are recorded on a free on board (f.o.b.) basis, using adjustments for cost of insurance and freight (c.i.f.)—by commodities for imports—estimated by the BoB.

⁸ Inventories of produced assets consist of stocks of output that are still held by the units that produced them prior to them being further processed, sold, or delivered to other units. Inventory valuation should be done as if they were being acquired on the balance sheet date.

2.4.3 Grossing/netting procedures are broadly consistent with internationally accepted standards, guidelines, or good practices.

Transactions between establishments within the same enterprise are recorded on a gross basis.

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.

In compiling the national accounts, the CSO draws on its internal data collection system (prices, merchandise trade, and industrial statistics), a survey/census-based system for enterprises and administrative sources including the BoB, the MFDP, the MoA, the Ministry of Minerals, Energy, and Water Affairs (Department of Mining), other line ministries, and other government institutions. The data collection system is comprehensive, except for coverage of small scale activities in the service sector (including smaller NPISHs), the informal sector, and unregistered construction companies.

The Industrial Statistics Unit of the CSO maintains a computerized Enterprise and Establishment Register (EER) that has been constructed on the basis of information provided by the Registrar of Companies and the Registrar of Societies and Councils, among others. The EER is updated on a continuous basis using records of the Ministry of Commerce, Ministry of Labor, the Central Tender Board, the Ministry of Works, Transport, and Communications (Department of Road Transport and Safety), and the MFDP (Department of Taxes). Firms are formally established by the Memorandum of Association, and licenses are recorded when paid; the register therefore may contain a number of dormant enterprises, those that have ceased to exist, or those that have registered but have not yet commenced operations. The CSO dispatches a Business Review Form on an annual basis to ascertain whether enterprises are active or not. Returned mail (to detect closed businesses) and newspaper advertisements (to detect new enterprises) are monitored. Internal databases are also sourced to update information on import/export companies and on commercial farmers. The EER presently covers approximately 43,000 establishments and contains information on the company's name, location, telephone number, date of registration, type of activity (now classified according to BSIC 3), and employment size. Unregistered companies, particularly in the construction sector, are not included in the EER.

The collection program for most market activities comprises an annual CPD, a CMC, and a quarterly SRT—all of which utilize the EER.⁹ For the CPD and CMC, questionnaires are sent to all enterprises with 50 or more employed persons, and to a sample of medium (defined by employment size of 20–49 persons) and small (defined by employment size of 5–19 persons) enterprises. However, purposive sampling is used in cases where a firm recorded a high turnover in the year prior to the reference period for the survey. Enterprises with less than five employees are not enumerated—although, as at end-June 2000, 33.9 percent of establishments on the EER fell in this category. Thus, small-scale activities in the service sector—including nonprofit and community services, real estate, and travel—are not covered. The survey coverage of activities, in terms of value added, is satisfactory as enumerated establishments account for about 68–75 percent of GDP, and CSO officers access the administrative records of the Department of Taxes to fill in nonrespondents' questionnaires as a last resort.

The SRT is based on a sample of large enterprises, and it is an important source of data for the quarterly and annual GDP estimates. The SRT collects data on operating income and expenditure, inventories, the number of paid employees, and wages and salaries classified by residents and nonresidents.

Annual **agricultural surveys** are undertaken by the MoA covering traditional farmers operating on communal land and commercial farmers. Using a phased combination of field-administered and mailed questionnaires, data are collected on a number of variables including livestock holding and sales, crop production, revenue, and sources of household/agricultural holding's income.

The survey program for **household operations** covers a decennial housing and population census, and a periodic Household Income and Expenditure Survey (HIES). The last HIES—conducted during a fourteen month period from November 1993 to January 1995—sampled 3,608 households (representing 1.2 percent of total households), using robust sample design to ensure comprehensive coverage. The results of the HIES forms the base of the present CPI, and they have also been used to derive an independent estimate of the marketed component of household final consumption in the 1994/95 national accounts and as a benchmark for the estimates of subsequent years.

⁹ The CMC and CPD questionnaires for the accounting period 07/01/00–06/30/01 were mailed at the end of June 2001, and enterprises were required to submit the completed questionnaire within 90 days after the end of the accounting period (or 30 days after receipt, whichever is later). Previously, questionnaires were dispatched with one- to two-year lags, resulting in nonresponses by companies that have become extinct. Forms for the quarterly SRT are mailed on an annual basis, and enterprises are required to submit returns within two weeks after the end of the reference period.

Government statistics, sourced from the MFD, are deficient in a number of areas, including classification and basis for recording (see data quality assessment of government finance statistics), thereby impacting on the soundness of the national accounts.

For **external transactions**, the CSO's foreign trade statistics database and the BOP compiled by the BoB are used. The CSO's Trade Statistics Unit (TSU) processes external trade data, in ASCII format, using the Common Customs Area (CCA) form for merchandise trade transactions within the Southern Africa Customs Union (SACU¹⁰) and the bills of entry for all other (non-SACU) merchandise trade transactions. EUROTRACE software is used to generate statistical outputs.

The **price statistics** program includes a monthly consumer price index (CPI) and other price collections, but the national accounts statistical system also relies on South African price statistics—given the deficiencies of Botswana's producer price index (PPI)—for deflation purposes.

Source data on the **informal sector** are deficient in a number of areas including the coverage of “shuttle trade” and small construction businesses. An informal sector survey was undertaken in 1999, and the results—not yet analyzed—will fill data gaps in the coverage of informal activities in future national accounts estimates.¹¹

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 basis for and timing of recording:

- The cash recording basis of data on central and general government operations are not in accord with the accrual accounting requirements of the national accounts. The accounting period for Botswana's annual BOP, the calendar year, that does not coincide with the accounting period (the “tax year”) of the national accounts, which is on a July-June reporting year. The absence of quarterly BOP precludes the availability of source data on external transactions on services for the quarterly GDP estimates and adversely affects the annual national accounts. However, quarterly BOP estimates are being developed by the BoB.
- Resident/nonresident household transactions sourced from the BOP are susceptible to definitional shortcomings as the holding of a foreign passport, rather than the

¹⁰ SACU comprises of Botswana, Lesotho, Namibia, South Africa, and Swaziland.

¹¹ Analysis of the survey results are now being undertaken as a UNDP-Gaborone project.

application of the one-year residency rule, is used as a guide to classify residency/nonresidency transactions in the commercial banking system. However, the CSO's redesigned Survey of Recent Trends (SRT) questionnaire now includes a resident-nonresident split in wages and salaries.

3.1.3 Source data are timely.

CSO survey-based source data are characterized by frequent delays due to low response rates, and the NASU's implicit extension of deadlines as it targets a minimum 60 percent response rate. Moreover, within the last year, CSO staff involvement in preparations for Census 2001 has resulted in a reduction of work in pursuing nonrespondents.

There is a backlog of unprocessed foreign trade data as of October 2000; the latest available data are for August 2000. While the CSO aims for a three-month dissemination lag, this has rarely been attained in practice, and a minimum timeliness of one year has been common. Annual audited accounts of local governments are available with a two- to three-year lag.

Other source data are usually available on a sufficient timely basis for the compilation of annual provisional estimates.

3.2 Statistical techniques

3.2.1 Data compilation employs sound statistical techniques.

Production approach

Estimates of output and intermediate consumption are compiled at the three-digit BSIC level.

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. However, in practice, valuation of rural huts are difficult. For rental of dwellings, the housing rental subindex of the CPI is used as a deflator; though it is not representative of price trends in the sector (see CPI detailed quality assessment under 3.1.2).
- Work in progress: not applied to agriculture and livestock.
- 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 perpetual inventory method is used as the conceptual basis for estimating consumption of fixed capital, in line with *1993 SNA*.

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

- The double deflation method is used for several sectors where the trend in output prices has varied from that of input prices. In some of these sectors, output prices are determined by the world market, and have no relation to input costs in Botswana. For national accounts purposes, internal price collections are supplemented with South African price statistics where necessary, as the present Botswana PPI is deemed inadequate.
- 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 source data for GDP estimates by expenditure components include external trade statistics, the government (central and local) accounts, the 1993/94 HIES, and the BOP statistics compiled by the BoB. Estimation techniques used are as follows:

- In estimating **Government final consumption expenditure**, the rate of growth of the local government component is assumed to be the same as that of central government for the years in which no local government data are available.
- The estimates for **Gross fixed capital formation** are based on a breakdown into two principal components:
 - Construction: the gross output of construction is estimated by dividing value added (in current prices) for each year by 0.3, which is the ratio of value added to gross output for the construction industry according to the 1993/94 Social Accounting Matrix (SAM) or the 1994/95 comprehensive accounts. It is further assumed that approximately 30 percent of the gross output in construction is for repair and maintenance, and the remaining 70 percent constitutes fixed capital formation.
 - Machinery and equipment: this estimate is derived by analyzing the merchandise import statistics. Retained imports (defined as imports less reexports) of chapters 82, 84–89 of the Harmonized System of Trade

Classification of Botswana are considered capital goods.¹² Adjustments are made for trade and transport margins using ratios derived from the latest comprehensive national accounts or SAM.

- **Private final consumption expenditure** was formerly estimated as a residual. However, the results of the 1993/94 HIES have been used to derive an independent estimate of the marketed component of household final consumption in the 1994/95 national accounts and provides a benchmark for the provisional estimates of the later years. These provisional estimates are based on retail sales surveys and commodity flow techniques (imports of consumption goods and agricultural output), and are checked for consistency against household disposable income.
- The ‘other’ component of **Net increase in inventories** is estimated as a residual, beginning with the 1995/96 annual estimates.

The classification of final consumption expenditure is done at the three-digit level of a national classification, and work on the classification of government final consumption expenditure in accordance with international standards is underway.

No techniques are used to address specific issues of GDP compilation, such as excluding incidental sales from government final expenditure, and including in the estimates of valuables—expenditures on items that are considered stores of wealth (such as jewelry, works of art). National accounts compilers point to the lack of a base for measurement of the latter.

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 the corresponding classifications.

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

The main lack in coverage of the annual national accounts concerns the smaller NPISHs and the informal sector (particularly unregistered construction companies and “shuttle trade”) for which no data adjustments are made.

¹² For chapter 87—motor vehicles—only a proportion (plus a 20 percent trade and transport margin) enters capital formation; the remaining are for household and intermediate use. For the other chapters on capital goods, a 12.5 percent markup is added for trade and transport margin.

3.3 Assessment and validation of source data

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

Random post enumeration checks are usually made while conducting censuses or surveys; a large part of those take place in the field by survey supervisors. However for the enterprise surveys, information is not available about sampling errors and nonresponse. Nonresponse by enterprises leads to imputation on the basis of other enterprises in the same economic activity or by reference to tax records depending on the size of the firm and its importance in the sector.

In the early editing stages, data received from enterprises are analyzed by taking ratios of the various variables reported and by examining the movement of the variables over time. High-value transactions are confirmed with respondents.

Where source data, particularly from other statistical systems, are not consistent with national accounts requirements concerning definitions, classifications, and valuation, no major adjustments are done. The harmonization of the national accounts year and the tax year minimizes timing problems usually associated with the accounting years of enterprises but introduces harmonization issues with the calendar year-based BOP.

3.4 Assessment and validation of intermediate data and statistical outputs

3.4.1 Main intermediate data are validated against other information where applicable.

Intermediate data on major sectors, including mining, are assessed against related indicators, such as volume and price trends.

3.4.2 Statistical discrepancies in intermediate data are assessed and investigated.

Ad hoc assessment of potential discrepancies of major intermediate data are done, but checks mainly occur only after discrepancies are identified.

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

In the provisional estimates of GDP, there is no statistical discrepancy as there is a residual item for GDP by expenditure. In the comprehensive national accounts estimates, net errors, and omissions are shown explicitly. Supply and use tables are constructed—with significant lags—and are used to address discrepancies.

3.5. Revision studies

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

Magnitude of revisions are observed, but studies and analyses of revisions are not conducted.

4. Serviceability

4.1 Relevance

4.1.1 The relevance and practical utility of existing statistics in meeting users' needs are monitored.

There are no established processes of consultation with policy departments and agencies of government, although the CSO believes it is sensitive to the statistical needs of government. User's needs outside the government are not regularly monitored, and private sector user feedback is not actively promoted.

4.2 Timeliness and periodicity

4.2.1 Timeliness follows dissemination standards.

There are annual GDP estimates at current and constant prices from both the production and expenditure approaches. Quarterly GDP estimates at current and constant prices from both the production and expenditure approaches are now disseminated as encouraged in the GDDS and prescribed in the SDDS.

4.2.2 Periodicity follows dissemination standards.

Provisional estimates of the annual GDP are disseminated with a timeliness of eight months to coincide with the presentation of the Budget Speech to the National Assembly. This meets the core indicator timeliness (six to nine months) of the GDDS. In terms of the GDDS core framework, the latest comprehensive set of national accounts was disseminated in March 2000 for the reference year 1994/95—a lag of almost five years.

Quarterly estimates of Botswana's GDP, covering the accounting period 1993/94–1999/2000, were released for the first time in March 2001. Estimates for the first two quarters (July–September and October–December) of the accounting year 2000/01 were released in October 2001.

The CSO intends to regularize the dissemination of the quarterly estimates and plans to meet the timeliness requirement of three months (as prescribed by the SDDS) by mid-2002.

4.3 Consistency

4.3.1 Statistics are consistent within the dataset.

For the annual provisional estimates of GDP, the estimates by activity and by expenditure are not derived independently, and therefore consistency is attained by a residual approach. For the comprehensive set of annual national accounts, the statistical discrepancy between GDP by expenditure and GDP by activity is small and has been stable over time.

4.3.2 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 20 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

Unusual changes in economic trends are explained in analytical text accessible to users.

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

The lack of a unified accounting period for the major statistical frameworks precludes reconciliation among data sets, e.g., total net lending/net borrowing (from national accounts) is not exactly the same as the current account balance plus the capital account balance (from BOP), and the value of external transactions on the expenditure side of the GDP does not match the corresponding current account components of the BOP. Nonharmonization of concepts across statistical frameworks that are of different levels of adherence to international standards also presents challenges in reconciliation.

4.4 Revision policy and practice

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

Dissemination of provisional (first) annual national accounts estimates for the latest tax year, and a revision of the previous year's estimates coincide with the presentation of the Budget Speech to the National Assembly. Subsequent revisions do not follow a regular, well-established, and transparent procedure. Until the compilation of the comprehensive national accounts is completed, the estimates for a year are labeled "provisional," although they may undergo a number of unpredictable revisions and adjustments to take account of updated source data and methodological changes. In the case of the latter, annotations are usually made.

4.4.2 Preliminary data are clearly identified.

Provisional estimates are clearly identified in notes to tables. However, the practice of revising the provisional estimates after one year is not identified.

4.4.3 Studies and analyses of revisions are made public.

Not applicable because measurement and analysis of the differences between preliminary and final data are not conducted.

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 annual comprehensive national accounts disseminated in the CSO's publication *National Accounts of Botswana* covers a 21-year period; the more updated GDP time series, covering an 11-year period, are published in the CSO's *Statistical Bulletin*. A seven-year annual time series are disseminated on the CSO's Internet website. Hard copy publications include an executive summary that highlights current period developments. The layout and clarity of text, tables, and charts in the recent *Stats Brief*, used to disseminate quarterly national accounts, are commendable.

5.1.2 Dissemination media and formats are adequate.

Provisional GDP estimates are first released as part of the Budget Speech Presentation via the publication of the *Annual Economic Report* by the MFDP. The estimates appear in the next publication of the CSO's *Statistical Bulletin*. Dissemination lags could be minimized by the adoption of a policy of electronic dissemination, immediately following the presentation of the Budget Speech. Presently, the comprehensive national accounts estimates are disseminated through a dedicated national accounts publication (*National Accounts of Botswana*). The data can also be found on the CSO's Internet website.

5.1.3 Statistics are released on a preannounced schedule.

Annual (provisional) national accounts estimates are released publicly via the *Economic Report*, which forms part of the Minister of Finance and Development Planning's Budget Speech presentation to the National Assembly in February. Thus, the announcement of the date on which the Budget Speech is tabled in the National Assembly approximates to a preannounced release date. The CSO publishes an annual hard copy wall calendar that identifies the expected statistical outputs for each month in a calendar year, but approximate or precise release dates are not identified. This listing of expected monthly outputs is not available on the CSO's Internet website.

The CSO's 2001 wall calendar identifies February as the month for the expected release of final (comprehensive) annual national accounts estimates for the years 1996/97 and 1997/98. However, as of October 2001, these statistical products have not been disseminated. Quarterly estimates of Botswana's GDP, covering the accounting period 1993/94–1999/2000, were released for the first time in February 2001. This is inconsistent with the information on the CSO's 2001 wall calendar, which identifies the month of May as the expected release for quarterly estimates covering the accounting period 1994/95–2000/01 (Q2). Data for the first two quarters of the national accounts year 2000/01 were released in October 2001, without prior announcement.

The authorities attribute these statistical output slippages to the CSO's focus on Census 2001, delays in the provision of source data, and ongoing work on the ERE/TES Project, which has now been extended for an additional year. While annual provisional estimates for the most recent accounting period is expected to be available at the time of next year's Budget Speech presentation, revised release schedules have not been disseminated for those outputs that have not yet met the expected release schedules in 2001.

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

The provisional estimates released as part of the presentation of the Budget Speech to Botswana's National Assembly are widely reported in the media.

5.1.5 Nonpublished (but nonconfidential) subaggregates are made available upon request.

Nonconfidential 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 internationally accepted standards, guidelines, or good practices are annotated.

An updated, comprehensive sources and methods document is not available. Published metadata do not include information on data biases and response rates of enterprise surveys.

5.2.2 Levels of detail are adapted to the needs of the intended audience.

Methodological notes are provided in the appendices of dedicated national accounts hard copy publications but are not available in electronic format to facilitate access by external users.

5.3 Assistance to users

5.3.1 Contact person for each subject field is publicized.

A contact person for the national accounts is publicized in hard copy publications.

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

A list of publications is given on the CSO's Internet website and in the quarterly *Statistical Bulletin*. The cost of the publications is stated as well as information on how they may be obtained.

Table 1.1 Botswana—Data Quality Assessment Framework: Summary Presentation of Results for National Account Statistics
(Compiling agency: Central Statistics Office)

Key to symbols: NA = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Not Observed; SDDS = Complies with SDDS Criteria						
Element	NA	Assessment			Comments on Assessment	Plans for Improvements and Target Dates
		O	LO	LNO		
0. Prerequisites of quality						
0.1 Legal and institutional environment			X			Data sharing among agencies should be improved. More proactive methods needed to encourage mandated response. Infrequent meetings and low participation in work of user-producer committees.
0.2 Resources			X			Professional staff needs national accounts training. Review of professional staff duties and of operational procedures needed. Developmental work may stretch existing staff resources.
0.3 Quality awareness			X			Mission statement reflects quality awareness, but processes that focus on quality are limited. Committees created after the 1995 user-needs assessment are now dormant.
1. Integrity						
1.1 Professionalism		X				
1.2 Transparency				X		Prerelease access within government not publicly identified. Advance notice of major changes in methodology, source data, and statistical techniques not given.
1.3 Ethical standards		X				

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Element	NA	Assessment				Comments on Assessment	Plans for Improvements and Target Dates
		O	LO	LNO	NO		
2. Methodological soundness							
2.1 Concepts and definitions							
			X			Comprehensive annual national accounts based on 1968 SNA.	
2.2 Scope			X			ISWGNA minimum requirements for 1993 SNA tables and accounts are not met.	
2.3 Classification/sectorization				X		Sectorization based on 1968 SNA. BSIC 3 system being implemented; other major classifications are not adopted.	Comprehensive national accounts statistics, using BSIC 3, will be published for the reference years 1996/97 and 1997/98 in February and December 2002, respectively. Historical data to be published on the same basis no later than December 2002.
2.4 Basis for recording			X			Diamond output/inventories valued at declared export prices as a proxy for market prices. Government expenditure recorded on cash basis.	

Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Not Observed; SDDS = Complies with SDDS Criteria

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Element		NA	Assessment				Comments on Assessment	Plans for Improvements and Target Dates	
			O	LO	LNO	NO			
3. Accuracy and Reliability									
3.1 Source data									
				X			Accounting periods and timing of recording differ among balance of payments, government finance, and national account statistics. Timeliness of source data adversely affected by low survey responses, and by delays in generation of trade statistics.		
3.2 Statistical techniques				X			No adjustments to intermediate consumption for holding gains/losses on inventories. Coverage adjustments for informal activities ("shuttle trade") are not based on sound statistical techniques.	Results of the 1999 Informal Sector Survey will inform coverage adjustments for informal activities in future national accounts estimates.	
3.3 Assessment and validations of source data				X			Information on sampling and nonsampling errors, imputation methods for nonresponses for business surveys unavailable.		
3.4 Assessment and validation of intermediate data and statistical outputs				X			Ad hoc assessment of potential discrepancies of major intermediate data are done, but checks mainly occur only after discrepancies are identified.		
3.5 Revision studies					X		Magnitude of revisions observed, but studies and analyses of revisions are not undertaken.		

Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Not Observed; SDDS = Complies with SDDS Criteria

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Element		NA	Assessment				Comments on Assessment	Plans for Improvements and Target Dates
		O	LO	LNO	NO			
4. Serviceability								
4.1 Relevance				X			Needs of nongovernmental users monitored only on an ad hoc basis.	
4.2 Timeliness and periodicity			X					Dissemination of quarterly national accounts (current and constant prices) with a lag of three months to be regularized in 2002.
4.3 Consistency				X			Differing accounting periods among statistical frameworks present reconciliation problems.	
4.4 Revision policy and practice				X			Revisions do not follow a regular and well-publicized schedule. Deviations from schedule occur.	
5. Accessibility								
5.1 Data accessibility				X			Expected release dates (months only) disseminated by CSO but are often not adhered to. Dissemination practices do not facilitate wide and rapid access to data.	
5.2 Metadata accessibility				X			Updated, comprehensive document on sources and methods not available. CSO's Internet website underutilized as a medium for metadata (information on statistical practices) dissemination, particularly to external users.	
5.3 Assistance to users			X					

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.

The Statistics Act of 1967 gives the CSO the authority to collect, compile, and disseminate data on prices and household expenditure. However, the act does not specifically disallow any other agency from producing a CPI, but this is not done. It is expected that the new Statistics Act, currently being drafted, will give the CSO broader control over official statistics. This would remove any uncertainty over its responsibility for the CPI.

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

All of the data collection and processing required for the compilation of the CPI is undertaken by the CSO. So, there is no interaction with any other agency.

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

The confidentiality and privacy provisions for collected data are fully covered in the Statistics Act. The Housing Income and Expenditure Survey (HIES), used to construct the weights for the CPI, and price collection are undertaken by face to face interviews. The interviewers are told to inform respondents of their rights and obligations in regard to the provision of information. They are also informed that the data will only be used for statistical purposes. The confidentiality rule is also clearly displayed on the survey forms completed by respondents to the HIES.

Disclosure penalties of a maximum of 400 pula and/or imprisonment of one year are specified in the Statistics Act. There is a standard rule that individual price quotes cannot be disclosed. There is no need for further rules since all item indices are aggregates of a number of individual quotes and hence, are not confidential. Collected data are kept in the appropriate offices, which are locked when not occupied. Only authorized staff are allowed access to the source data. Computer systems are similarly protected, and the CSO building is protected by security guards. All confidential forms are shredded on-site before disposal.

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

The CPI is covered by mandatory reporting provisions of the Statistics Act. The maximum penalties for noncompliance specified in the Statistics Act are 100 pula, three months

imprisonment, or both. The CSO are not aware of any conflicts or potential conflicts, between the requirements of the Statistics Act and any other law or provision.

All data are collected by interviewers who provide all necessary assistance to respondents. Respondents who are reluctant to report are reminded of the provisions of the Statistics Act. However, in an effort to maintain good relations with respondents, the CSO does not seek to enforce these provisions through legal action. Instead, they have developed excellent relations with respondents to maintain high voluntary response rates.

0.2 Resources

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

There are 13 staff in the Prices Unit (including price collectors), which is sufficient for the regular production of the CPI. However, there are insufficient resources to undertake development work. In particular, there are only two professionally qualified staff compared to four in the past. Senior management are aware of the need to maintain a core contingent of experienced staff. However, staff retention is a serious problem because of the low rates of pay in the civil service. Senior management are hoping that the new Statistics Act will give them greater flexibility in the pay rates they can offer.

There are sufficient computer resources to meet all the needs of the CPI program. A set of modern and efficient software tools have been established to satisfy the needs of staff. There is a training program to improve staff's expertise in the computer program Statistical Package for Social Sciences (SPSS), used for analysis within the CSO.

The financial resources are adequate for compiling the CPI. The CSO has an established planning process for bidding for additional resources to undertake new work.

0.2.2 Measures to ensure efficient use of resources are implemented.

The Prices Unit does not have its own budget and is not involved in reviews of budgetary procedures. However, it has a detailed work planning system, where performance is compared against detailed and specific delivery dates. Senior management are concerned that staff resources are not being utilized efficiently. Efficiency is enhanced by the fact that there is complete consistency between the concepts and methodologies underlying the HIES and CPI.

0.3 Quality awareness

0.3.1 Processes are in place to focus on quality.

The Business Plan 1998–2001 provides a mission statement of objectives and targets that reflect a commitment to quality; in practice, specific processes and/or work programs to support these objectives are either limited or have not been effected.

0.3.2 Processes are in place to monitor the quality of the collection, processing, and dissemination of statistics.

Supervisors undertake random checks of individual price quotes by revisiting specific outlets. Computer checks and visual inspections are applied at different stages of the processing of the prices. There is a User/Producer Committee to focus on such issues, but this committee has not met recently. However, it is planned to resurrect it when the CSO becomes more independent. As far as is known, no user surveys have been undertaken.

0.3.3 Processes are in place to deal with quality considerations, including trade-offs within quality, and to guide planning for existing and emerging needs.

Staff are fully aware of trade-offs among dimensions of quality. Such considerations are made available to the User/Producer Committee. It is the role of the User/Producer Committee to address new and emerging data requirements, but this Committee has not met recently.

1. Integrity

1.1 Professionalism

1.1.1 Statistics are compiled on an impartial basis.

The Statistics Act seeks to ensure the professional independence of the CSO. It specifically prohibits interference, including from other government agencies. These provisions have proved effective in guaranteeing noninterference in the past. Currently, the Government Statistician reports to the Permanent Secretary of the MFDP on administrative matters but to the Parliament and the Minister of Finance and Development Planning on professional matters. However, it is expected that the new Statistics Act will make the head of the CSO more independent. Staff are free to produce methodological papers and to attend conferences etc. However, opportunities are limited due to resource constraints.

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

Choices of source data and statistical techniques for the CPI are based solely on statistical considerations. Such considerations are covered in the published *CPI Technical Guide*.

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

The CSO does review and comment on misinterpretation or misuse of the CPI. The CPI statistical brief comments on and explains movements in the index.

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 is included on the CSO's Internet website.

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

There is no prerelease access to the CPI.

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

All publications are clearly identified with the name and logo of the CSO.

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

In the past, the User/Producer Committee was actively involved in the planning for major changes. However, the user community as a whole were not informed of such changes.

1.3 Ethical standards

1.3.1 Guidelines for staff behavior are in place and are well-known to the staff.

The roles and responsibilities of staff, as stated in the Statistics Act, clearly cover ethical standards. In the past, the Government Statistician used the Act to reject attempts at political interference. New staff are made aware of their responsibilities, but are not subsequently reminded of these guidelines.

2. Methodological soundness

2.1 Concepts and definitions

2.1.1 The overall structure in terms of concepts and definitions follows internationally accepted standards, guidelines, or good practices.

Concepts and definitions, which have been developed locally, are broadly in-line with international recommendations. Item specifications are currently based on historical guidelines, which were in-line with the international standards of the time.

2.2 Scope

2.2.1 The scope is broadly consistent with internationally accepted standards, guidelines, or good practices.

All sizes of households in both urban and rural areas are covered in the HIES. However, as is common in many countries, price collection takes place in urban and some readily accessible rural areas. The consumption activities of household producers are also covered since the HIES separately identifies productive activities.

The CPI weights only represent purchases of market goods and services for consumption purposes (even though the HIES also records own-account production of market goods for own final consumption and income in kind). These limitations in coverage are not made clear either in regular publications of the CPI or in the *CPI Technical Guide*.

2.3 Classification/sectorization

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

The SNA definitions for household units and consumption transactions (purchasers' prices) are used. The product breakdown used for the CPI is based on a domestic classification. However, it is planned to adopt the Classification of Individual Consumption by Purpose (COICOP) on the next rebasing.

2.4 Basis for recording

2.4.1 Market prices are used to value flows and stocks.

The CPI weights and price quotations are based on actual market (purchaser) prices.

2.4.2 Recording is done on an accrual basis.

Prices for most items are collected once a month and are included in the CPI for that month. However, prices for two items—private rent for one-roomed accommodation and domestic servant's wage—are only collected through quarterly surveys in Gaborone and Francistown. This means that these prices are used for each of the three months following the survey month, which is the last month of each quarter. However, it is planned to convert these into monthly surveys at the time of the next rebasing.

2.4.3 Grossing/netting procedures are broadly consistent with internationally accepted standards, guidelines, or good practices.

Not applicable since the CPI does not cover purchases of existing goods, which is the only grossing/netting issue affecting the CPI.

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.

Outlets—from which price quotations are collected—were selected from the business register at the time when the latest weights were introduced in 1996. Closed outlets are not replaced for three months in case they reopen. If permanently closed they are replaced by similar outlets selected from the current business register. Households covered by the HIES were selected using the 1991 census, updated at the beginning of the survey by the interviewing teams.

The last HIES covered the period 1993/94. It had been hoped to run the HIES every five years, but lack of resources and other commitments mean that the next HIES is planned to cover the period April 2002–March 2003. The HIES covered all households with the exceptions of those of foreign diplomats. As is common with household budget surveys, institutions, such as hotels, army camps, and nurses hostels are also excluded. Households were selected using a two-stage random sample approach. First, 144 primary sampling units (PSUs) were selected from the 1991 census enumeration areas. All of the households within these PSUs were listed just before the beginning of the survey period and the 3,608 households to be surveyed were randomly selected from these lists. Nonresponding households were chased up, leaving relatively few from which data could not be obtained. No adjustment was made for these nonresponding households. The details collected by the HIES were more than sufficient to meet the needs of the CPI—see 2.2.1 in this section.

Price quotations for most items are collected during the first two weeks of each month. Product specifications are very precise and are those that were dominant as recorded in the HIES. Approximately 8,100 price quotations are collected from about 570 retail outlets. Additionally, around 51 special commodities, mainly services, are collected from nonconventional outlets.

New products are only introduced when the results of a new HIES become available. Accordingly, the CSO does not need to conduct any ad hoc surveys.

Regular meetings take place within the SADC forum to exchange views and developments about CPIs between member countries.

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

Most source data are fully consistent with the requirements of the CPI except for price observations used in the house rental component. The rental price used for medium and high value accommodation is obtained from the Botswana Housing Corporation; the role of this corporation has become much less important—compared to private rentals—over the years. Also, its prices have not moved in-line with those for private rentals—either being fixed for a number of years or growing at a faster rate to catch up. This means that the house rental component of the CPI, which is a significant item, is not truly representative.

The definitions used for the HIES and CPI are closely aligned to ensure that the data are completely consistent.

3.1.3 Source data are timely.

Price quotes are usually supplied on a timely basis, but short delays can sometimes occur. No data from other statistical systems are used in the compilation of the CPI.

3.2 Statistical techniques

3.2.1 Data compilation employs sound statistical techniques.

The CPI is built up from 256 items, organized into 12 groups, covering all goods and services. This is acceptable given the range of products consumed in Botswana.

Owner-occupied dwelling services are not currently included in the CPI. However, there is some user demand for its inclusion, so it is planned to investigate this issue. Collected prices are those actually paid by purchasers irrespective of the method of purchase.

Item indices are derived by taking the average of the long-term price relative of the relevant price quotations. However, the CSO are planning to adopt short-term price relatives on the next rebasing. Aggregates are obtained using the Laspeyres formula. The weight reference period is now around seven years old and will continue to be used for a few more years. The price reference period is currently November 1996, so the 1993/94 weights were updated to the prices of that month. The 1996 based index was linked to the previous November 1991 based index using the November 1996 values.

The last reported price is carried forward, if it is not possible to obtain a quotation in any month. However, the CSO is planning to use growth in related items following the next rebasing. The last reported price is carried forward for seasonally unavailable products until they again become available. A permanently unavailable product is replaced with a similar item. If possible, the price for the replacement product is spliced onto that of the old product

by obtaining the price for the overlap month. Otherwise, the price for the new product is used without any adjustment for quality differences, but this is very rare.

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

No adjustments are made to bring the CPI into line with the national accounts. In particular, no estimates are currently made for owner-occupied dwelling services.

3.3 Assessment and validation of source data

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

No analyses of the sampling errors for the 1993/94 HIES were undertaken. Nonresponse to the 1993/94 HIES was minimized by follow-up visits to the relevant households. Any residual nonresponse was adjusted for through the weighting procedures. Adjustments were made to the 1993/94 HIES results for underreporting for specific products, such as alcohol and tobacco, using commodity flow techniques.

Sampling errors for price collection are not available, given the judgmental selection of outlets and products. No other source data are used in the compilation of the CPI. Individual price quotations are routinely checked for excessive growth over the previous month and for consistency with other quotes.

3.4 Assessment and validation of intermediate data and statistical outputs

3.4.1 Main intermediate data are validated against other information where applicable.

The CPI cannot be validated against other independent data sources. This is because there is no breakdown for the PPI and for the GDP deflator. Also, there are no specific price indices for imports and exports.

3.4.2 Statistical discrepancies in intermediate data are assessed and investigated.

Unusual movements in the CPI are investigated and explained. For instance, a large movement in domestic servant's wages in September 2001 was explained in the monthly release.

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

All breakdowns of the CPI are fully consistent, so there is no potential for discrepancies.

3.5 Revision studies

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

Although the CPI is assumed final when first released, revisions to the series occur when there are incorrect price observations and/or weighting problems arising from a change in the price collection procedures.

4. Serviceability

4.1 Relevance

4.1.1 The relevance and practical utility of existing statistics in meeting users' needs are monitored.

There is a User/Producer Committee made up from representatives for all interested parties—public and private. This committee used to meet quarterly, but due to lack of interest, it is now dormant. However, it is planned to reintroduce regular meetings in 2002. The CSO regularly participates in SADC meetings to discuss CPI methodology.

4.2 Timeliness and periodicity

4.2.1 Timeliness follows dissemination standards.

The CPI is published within two weeks of the end of the reference month, which complies with the SDDS.

4.2.2 Periodicity follows dissemination standards.

The CPI is compiled monthly, again in-line with SDDS requirements.

4.3 Consistency

4.3.1 Statistics are consistent within the dataset.

All breakdowns of the CPI are fully consistent.

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

Consistent time series are available going back for over 30 years. The methodology for constructing the CPI has not changed, so there has never been the need to carry changes back over time.

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

It is not known if the CPI is consistent with the PPI, because there is no breakdown for the PPI. However, the poor quality of the PPI would suggest that they are not consistent.

4.4 Revision policy and practice

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

Revisions to the CPI are only made to correct errors, and users are aware—informed of the revision in the relevant *Stats Brief*. The HIES, used as the basis for rebasing the CPI, is targeted for execution every five years. However, this has not been attained in practice due to resource constraints and competing statistical priorities.

4.4.2 Preliminary data are clearly identified.

Data are assumed final when first released and are identified as such.

4.4.3 Studies and analyses of revisions are made public. (See also 3.5.1)

Monthly data may be revised between rebasing. However, the impact of revised weights on the use of the CPI time series are not explained to users.

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 monthly CPI publication is clear and concise. It contains a commentary on the results, incorporating charts. The CPI figures are broken down into the 12 groups and are published for the latest three years. More detailed figures are also included for the more recent periods.

5.1.2 Dissemination media and formats are adequate.

Data are first released as a hard copy *Stats Brief*, which is suitable for most users' needs—more detailed analyses are not published but are available on request. The monthly figures are also posted on the CSO's Internet website within a day or two of the release of the *Stats Brief*.

5.1.3 Statistics are released on a preannounced schedule.

There is no preannounced release schedule. In fact, the figures are published as soon as they are finalized, so the release date varies from month to month.

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

The CPI is released simultaneously to all public and private users (including the press). However, since there is no release schedule, not all users know when it is available.

5.1.5 Nonpublished (but nonconfidential) subaggregates are made available upon request.

All available breakdowns are supplied on request and free of charge. However, this service is not specifically 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 internationally accepted standards, guidelines, or good practices are annotated.

The *Technical Guide* was published when the 1996 based series was introduced. This provides a fairly detailed description of the sources and methods used to construct the CPI. However, deviations from international standards are not specifically mentioned.

5.2.2 Levels of detail are adapted to the needs of the intended audience.

The *Technical Guide* is the only such description of the CPI that has been published, but its layout does meet the needs of various users.

5.3 Assistance to users

5.3.1 Contact person for each subject field is publicized.

There is no published contact service specifically for the CPI, only a general contact point for the whole of the CSO. However, most users know who to contact for assistance.

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

The CSO's quarterly *Statistical Bulletin* contains a list of the CSO's publications together with their prices and provides users with details of the full range of the CSO's products.

Table 1.2 Botswana—Data Quality Assessment Framework: Summary Presentation of Results for Consumer Price Index
(*Compiling agency: Central Statistics Office*)

Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Not Observed; SDDS = Complies with SDDS Criteria						
Element	NA	Assessment			Comments on Assessment	Plans for Improvements and Target Dates
		O	LO	LNO/NO		
0. Prerequisites of quality						
0.1 Legal and institutional environment		X				
0.2 Resources			X		Shortage of professional staff; limited measures to ensure efficient use of resources.	
0.3 Quality awareness			X		Mission statement reflects quality awareness, but processes that focus on quality are limited. Committees created after the 1995 user-needs assessment are now dormant.	
1. Integrity						
1.1 Professionalism		X				
1.2 Transparency			X		Limited advance notification of major changes.	Planned introduction of regular user meetings that will be a forum for notification of such changes.
1.3 Ethical standards		X				
2. Methodological soundness						
2.1 Concepts and definitions		X				
2.2 Scope			X		Weights only cover market purchases.	
2.3 Classification/sectorization			X		COICOP not used to classify activities.	Planned adoption of COICOP at the next rebasing.
2.4 Basis for recording		X				

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Key to symbols: NA = Not Applicable; O = Practice Largely Observed; LO = Practice Largely Not Observed; NO = Not Observed; SDDS = Complies with SDDS Criteria									
Element		NA	Assessment				Comments on Assessment	Plans for Improvements and Target Dates	
			O	LO	LNO	NO			
3. Accuracy and Reliability									
3.1 Source data									
				X			Current weights will be used for 10 years; prices collected for house rentals are not representative.		
3.2 Statistical techniques				X			Owner-occupied dwelling services not included; long-term price relatives used; temporarily missing quotes use the last reported price.	Planned changes for the next rebasing include owner-occupied dwelling services, use of short-term price relatives and use of growth in related items for temporarily missing price quotes.	
3.3 Assessment and validations of source data			X						
3.4 Assessment and validation of intermediate data and statistical outputs			X						
3.5 Revision studies		X					Revisions are only made when errors are identified.		
4. Serviceability									
4.1 Relevance									
				X			The existing user group is now dormant.	User group to be reactivated when the new Statistics Law is introduced in 2002.	
4.2 Timeliness and periodicity									
4.3 Consistency			SDDS						
4.4 Revision policy and practice			X				Users are not informed of the impact of revised weights on the use of the CPI time series. Rebasing policy not adhered to.		

Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Not Observed; SDDS = Complies with SDDS Criteria

Table 1.2 Botswana—Data Quality Assessment Framework: Summary Presentation of Results for Consumer Price Index
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Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Not Observed; SDDS = Complies with SDDS Criteria

Element	NA	Assessment				Comments on Assessment	Plans for Improvements and Target Dates
		O	LO	LNO	NO		
5. Accessibility							
5.1 Data accessibility			X			No preannounced scheduled for the CPI—it is released as soon as it is available.	
5.2 Metadata accessibility			X				
5.3 Assistance to users			X			There is no specific contact person for the CPI, but most users know who to contact.	

III. PRODUCER 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.

The Statistics Act of 1967 gives the Central Statistics Office (CSO) the authority to collect, compile, and disseminate data on producer prices. However, the act does not specifically disallow any other agency from producing a producer price index (PPI), but this is not done. It is expected that the new Statistics Act, currently being drafted, will give the CSO broader control over official statistics. This would remove any uncertainty over its responsibility for the PPI.

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

All of the data collection and processing required for the compilation of the PPI is undertaken by the CSO. So, there is no interaction with any other agency.

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

The confidentiality and privacy provisions for data collected for the PPI are fully covered in the Statistics Act. The price collection is undertaken by face to face interviews, and the interviewers are told to inform respondents of their rights and obligations in regard to the provision of information. They are also informed that the data will only be used for statistical purposes.

Disclosure penalties of a maximum of 400 pula and/or imprisonment of one year are specified in the Statistics Act. There is a standard rule that no unpublished data can be disclosed. Collected data are kept in the appropriate offices, which are locked when not occupied. Only authorized staff are allowed access to the source data. Computer systems are similarly protected, and the CSO building is protected by security guards. All confidential forms are shredded on-site before disposal.

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

The PPI is covered by mandatory reporting provisions of the Statistics Act. The maximum penalties for noncompliance specified in the Statistics Act are 100 pula, three months imprisonment, or both. The CSO are not aware of any conflicts or potential conflicts between the requirements of the Statistics Act and any other law or provision.

All data are collected by interviewers, who provide all necessary assistance to respondents. Respondents, who are reluctant to report, are reminded of the provisions of the Statistics Act. However, in an effort to maintain good relations with respondents, the CSO does not seek to enforce these provisions through legal action. Instead, they have developed excellent relations with respondents to maintain high voluntary response rates.

0.2 Resources

0.2.1 Staff, financial, and computing resources are commensurate with statistical programs of the agency.

There are 13 staff in the Prices Unit (including price collectors), which is sufficient for the regular production of the PPI. However, there are insufficient resources to undertake development work. In particular, there are only two professionally qualified staff compared to four in the past. Senior management are aware of the need to maintain a core contingent of experienced staff. However, staff retention is a serious problem because of the low rates of pay in the civil service. Senior management are hoping that the new Statistics Act will give them greater flexibility in the pay rates they can offer.

There are sufficient computer resources to meet all the needs of the PPI program. A set of modern and efficient software tools have been established to satisfy the needs of staff. There is a training program to improve staff's expertise in the computer program Statistical Package for Social Sciences (SPSS), used for analysis within the CSO.

The financial resources are adequate for compiling the PPI. The CSO has an established planning process for bidding for additional resources to undertake new work.

0.2.2 Measures to ensure efficient use of resources are implemented.

The Prices Unit does not have its own budget and is not involved in reviews of budgetary procedures. However, it has a detailed work planning system where performance is compared against detailed and specific delivery dates. Senior management are concerned that staff resources are not being utilized efficiently.

0.3 Quality awareness

0.3.1 Processes are in place to focus on quality.

The Business Plan 1998–2001 provides a mission statement of objectives and targets that reflect a commitment to quality; in practice, specific processes and/or work programs to support these objectives are either limited or have not been effected. Even though staff are aware that the PPI is of poor quality, no corrective action has been taken. This shows that there is a lack of processes to address specific quality issues.

0.3.2 Processes are in place to monitor the quality of the collection, processing, and dissemination of statistics.

There is a User/Producer Committee to focus on quality issues, but this committee has not met recently. However, it is planned to resurrect it when the CSO become more independent. As far as is known, no user surveys have been undertaken.

0.3.3 Processes are in place to deal with quality considerations, including trade-offs within quality, and to guide planning for existing and emerging needs.

Staff are fully aware of trade-offs among dimensions of quality. Such considerations are made available to the User/Producer Committee. This is the role of the User/Producer Committee, which has not met recently.

1. Integrity

1.1 Professionalism

1.1.1 Statistics are compiled on an impartial basis.

The Statistics Act ensures the professional independence of the CSO. It specifically prohibits interference, including from other government agencies. These provisions have proved effective in guarantying noninterference in the past. Currently, the Government Statistician reports to the Permanent Secretary of the Ministry of Finance and Development Planning (MFDP) on administrative matters, but to the Parliament and the Minister of Finance and Development Planning on professional matters. However, it is expected that the new Statistics Act will make the head of the CSO more independent. Staff are free to produce methodological papers and to attend conferences etc. However, opportunities are limited due to resource constraints.

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

Source data and statistical techniques for the PPI are based solely on statistical considerations.

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

The CSO does review and comment on misinterpretation or misuse of the PPI. However, no briefing material is supplied—to reduce such misinterpretation—when the index is published.

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 is included on the CSO's Internet website. Also, the CSO's quarterly *Statistical Bulletin* provides users with details of the full range of the CSO's products.

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

There is no prerelease access to the PPI.

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

All publications are clearly identified with the name and logo of the CSO.

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

In the past, the User/Producer Committee was actively involved in the planning for major changes. However, the user community as a whole was not informed of such changes.

1.3 Ethical standards

1.3.1 Guidelines for staff behavior are in place and are well-known to the staff.

The roles and responsibilities of staff, as stated in the Statistics Act, clearly cover ethical standards. In the past, the Government Statistician used the Act to reject attempts at political interference.

New staff are made aware of their responsibilities but are not subsequently reminded of these guidelines.

2. Methodological soundness

2.1 Concepts and definitions

2.1.1 The overall structure in terms of concepts and definitions follows internationally accepted standards, guidelines, or good practices.

The PPI weights are partially consistent with the 1993 SNA in that they are based on output at producer prices, but they do not cover own account capital formation. Price quotes only relate to market sales; transactions within the reporting units or between related reporting units are

ignored, but these are not considered to be significant. Input and stage of processing price indices are not produced.

2.2 Scope

2.2.1 The scope is broadly consistent with internationally accepted standards, guidelines, or good practices.

The PPI only covers manufacturing industries; mining and quarrying are not included even though this is a major industry, and the data should be readily available. However, separate indices are produced for construction and wholesalers, but the construction index is still experimental. All market enterprises, as contained on the Business Register, are in scope for the PPI. The PPI only covers market sales, and the weights only represent market output for sale; these limitations have never been notified to users.

2.3 Classification/sectorization

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

The industrial classification used is the BSIC 3. Products conform to producer definitions that allow collection of prices for the same items from quarter to quarter but are not coded following a systematic classification, such as the UN's Central Product Classification (CPC) or the European Union's Classification of Products by Activity (CPA).

2.4 Basis for recording

2.4.1 Market prices are used to value flows and stocks.

Market output is valued at producer prices.

2.4.2 Recording is done on an accrual basis.

Output includes changes in work-in progress, so is based on accrual accounting.

2.4.3 Grossing/netting procedures are broadly consistent with internationally accepted standards, guidelines, or good practices.

Inter-enterprise transactions are not included, but such transactions are not considered significant.

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's Business Register is reasonably comprehensive and up-to-date.

The surveys do not cover enterprises with fewer than five employees, but it is still believed that around 80 percent of output is covered. A major problem with the PPI is that the sample design does not follow international guidelines. One sample, Sample 1, was created by selecting two enterprises from each of 19 subindustries. A second sample, Sample 2, of 52 companies was selected from the whole of manufacturing industry. This methodology was devised by a consultant in 1990. However, it was only intended to be used as a temporary measure while a conventional PPI was being developed.

Both samples were derived using a probability proportional to size technique. The major products produced by each enterprise were then identified and price quotes for each of these products are given a grossing-up factor derived from the base year output values. The two samples are weighted together using factors derived by a consultant in 1990, i.e., they were not updated to the base period of September 1997.

The collected price quotes are the average sales prices for the last month of each quarter. The small size of the sample means that no breakdown of manufacturing is possible. The PPI does not cover household unincorporated businesses. Ad hoc surveys are not necessary under the existing PPI program.

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

The PPI methodology is based on concepts underlying the available source data.

3.1.3 Source data are timely.

Price collection takes place during the month following the reference period by personal interview, which fully meets the requirements of the PPI.

3.2 Statistical techniques

3.2.1 Data compilation employs sound statistical techniques.

Output for manufacturing industries is available at the two-digit level of ISIC. Product specification are those familiar to the selected enterprises. The PPI weights are based on output, i.e., including work-in progress but not adjusted for holding gains.

Each collected price quote has its own grossing-up factor and is measured relative to the base value. Aggregation is done using a Laspeyres formula. The weights are based on output for the year 1996, adjusted for price changes to the reference period, September 1997. The weights have never been changed.

When a particular price cannot be collected, the previous reported price is carried forward. If the price cannot be again collected in the following period it is replaced by another product produced by the same company. This replacement product is linked to the old one using overlap pricing. If no prices can be collected from a company in Sample 1, it is replaced by a similarly sized enterprise in the same subindustry. A replacement enterprise in Sample 2 can be from any subindustry. New products are not introduced into the PPI, unless as replacements.

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

No such adjustments are made.

3.3 Assessment and validation of source data

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

No assessment of sampling and nonsampling errors are undertaken. Sampling errors are clearly large given the small size of the sample. This also means that outliers can severely distort the PPI results, as recognized by the staff. However, no action has been taken to increase the size of the sample.

No administrative data are used in compiling the PPI.

Price quotes are compared with the previous period. No other measures are possible to validate the source data.

3.4 Assessment and validation of intermediate data and statistical outputs

3.4.1 Main intermediate data are validated against other information where applicable.

No checks are feasible since there is no breakdown of the PPI.

3.4.2 Statistical discrepancies and other potential indicators of problems in intermediate data are investigated and available to guide users.

No such analyses are undertaken. For instance, the June 2001 values for Sample 1 (128.7) and Sample 2 (141.0) are significantly different considering that they are both covering manufacturing industry. Also, growth over March 2001 are -1.5 percent and +6.3 percent, respectively.

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

Not applicable since there are only two components of the PPI.

3.5 Revision studies

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

The PPI would only be revised if errors were found, and this has never happened.

4. Serviceability

4.1 Relevance

4.1.1 The relevance and practical utility of existing statistics in meeting users' needs are monitored.

There is a User/Producer Committee made up from representatives for all interested parties, public and private. This committee used to meet quarterly, but due to lack of interest it has not met recently. However, it is planned to reintroduce regular meetings next year.

4.2 Timeliness and periodicity

4.2.1 Timeliness follows dissemination standards.

The PPI is published around seven to eight weeks after the relevant month in line with GDDS requirements.

4.2.2 Periodicity follows dissemination standards.

The PPI is only produced for the last month of each quarter and accordingly, does not meet the GDDS requirement.

4.3 Consistency

4.3.1 Statistics are consistent within the dataset.

Not applicable as only one very simple breakdown is published.

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

The PPI is available from September 1997 using a single methodology.

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

The poor quality of the PPI means that it cannot be considered consistent with other series, such as the CPI.

4.4 Revision policy and practice

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

Not applicable since the PPI is never revised.

4.4.2 Preliminary data are clearly identified.

Data are final when first released and are identified as such.

4.4.3 Studies and analyses of revisions are made public. (See also 3.5.1)

Not applicable since the PPI is never revised. Further, the PPI weights are based on output for the year 1996, adjusted for price changes to the reference period, September 1997. The weights have never been changed, and there is no previous base against, which weight revisions can be assessed.

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).

Only one table of figures is included in the regular release, showing the values for both samples as well as the aggregate PPI. No commentary on the figures is provided.

5.1.2 Dissemination media and formats are adequate.

No additional breakdowns are available over that in the initial release. The data are also contained on the CSO's Internet website.

5.1.3 Statistics are released on a preannounced schedule.

There is no preannounced schedule; the PPI is published as soon as it has been finalized.

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

The PPI is released simultaneously to all public and private users (including the press). However, since there is no release schedule, not all users know when it is available.

5.1.5 Nonpublished (but nonconfidential) subaggregates are made available upon request.

There are no further breakdowns available beyond that given in the initial release, since such data are considered to be confidential.

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 internationally accepted standards, guidelines, or good practices are annotated.

No metadata are available for the PPI, other than the unpublished report of the consultant who devised the methodology. Differences from international guidelines on PPI compilation are not annotated.

5.2.2 Levels of detail are adapted to the needs of the intended audience.

Not applicable.

5.3 Assistance to users

5.3.1 Contact person for each subject field is publicized.

There is no published contact service specifically for the PPI, only a general contact point for the whole of the CSO. However, most users know who to contact for assistance.

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

The CSO's quarterly *Statistical Bulletin* contains a list of the CSO's publications together with their prices.

Table 1.3 Botswana—Data Quality Assessment Framework: Summary Presentation of Results for Producer Price Index
(Compiling agency: Central Statistics Office)

Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Not Observed; SDDS = Complies with SDDS Criteria							
Element	NA	Assessment				Comments on Assessment	Plans for Improvements and Target Dates
		O	LO	LNO	NO		
0. Prerequisites of quality							
0.1 Legal and institutional environment		X					
0.2 Resources			X			Shortage of professional staff; limited measures to ensure efficient use of resources.	
0.3 Quality awareness					X	The PPI is recognized to be of poor quality, but no corrective action has been taken.	
1. Integrity							
1.1 Professionalism		X					Planned introduction of regular user meetings that will be a forum for notification of such changes.
1.2 Transparency			X			Limited advance notification of major changes.	
1.3 Ethical standards		X					
2. Methodological soundness							
2.1 Concepts and definitions			X			Weights do not cover own account capital formation	
2.2 Scope				X		The mining and quarrying industry is not covered; price quotes only represent market sales.	
2.3 Classification/sectorization		X					
2.4 Basis for recording		X					

Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Not Observed; SDDS = Complies with SDDS Criteria

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Element		NA	Assessment				Comments on Assessment	Plans for Improvements and Target Dates
		O	LO	LNO	NO			
3. Accuracy and Reliability								
3.1 Source data						X	The design of the sample does not follow international guidelines, and it is too small to allow a breakdown by subindustry; enterprises with less than five employees and household producers are not covered.	
3.2 Statistical techniques				X				
3.3 Assessment and validations of source data						X	Large sampling errors and outliers distort results, but no corrective action has been taken.	
3.4 Assessment and validation of intermediate data and statistical outputs						X	Two samples of enterprises are undertaken, but no comparison is made of the results.	
3.5 Revision studies			X				The PPI would only be revised if errors were found, but this has not occurred to date.	
4. Serviceability								
4.1 Relevance					X		The existing user group has not met recently.	User group to be reactivated in 2002.
4.2 Timeliness and periodicity						X	The PPI is only produced for every third month.	
4.3 Consistency						X	The poor quality of the PPI means that it cannot be considered consistent with other series, such as the CPI.	
4.4 Revision policy and practice			X				The PPI has never been revised.	

Table 1.3 Botswana—Data Quality Assessment Framework: Summary Presentation of Results for Producer Price Index
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Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Not Observed; SDDS = Complies with SDDS Criteria

Element	NA	Assessment				Comments on Assessment	Plans for Improvements and Target Dates
		O	LO	LNO	NO		
5. Accessibility							
5.1 Data accessibility				X		The disseminated data are limited in detail, and there is no commentary; there is no preannounced schedule for the PPI—it is released as soon as it is available.	
5.2 Metadata accessibility					X	No documentation has ever been produced.	
5.3 Assistance to users			X			There is no specific contact person for the PPI, but most users know who to contact.	

IV. 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.

The Ministry of Finance and Development Planning (MFDP) collects, processes, and disseminates central government statistics in compliance with both the Finance and Audit Act (1970) Cap 54.01 and the Financial Instructions and Procedures issued pursuant to section 44 of that Act. The Budget Administration Division (BAD) and the Accountant General Department (AGD), both of which are within the MFDP, are tasked with these responsibilities. According to the Statistics Act of 1967, the Central Statistical Office (CSO), also a department of MFDP, collects statistics on “public administrative, financial, industrial, and commercial activities of the Government and local authorities, and the activities of institutions established by them or by, or in pursuance of any law” (Statistical Act, paragraph 3.m). The main sources of information for that task are the BAD and the AGD. Similarly, the Bank of Botswana (BoB) publishes in its *Annual Report*, and as well in its monthly report *Botswana Financial Statistics (BFS)*, data on public finance; the sources of the data are the BAD and AGD.

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

Fiscal and financial information published in the MFDP’s *Annual Statements of Accounts* has broadly the same scope as required by IMF’s *1986 Government Finance Statistics Manual (1986 GFS Manual)*. This information is compiled by the Accountant General’s Department using the computerized accounts system.

The MFDP provides all the necessary information on central government finance to the CSO and BoB. All central government financing statistics are compiled by the MFDP. There is good cooperation among the agencies, and since the role of the MFDP is clear, there is no duplication of effort or unnecessary respondent burden.

A BoB/MFDP working group, which meets quarterly on issues of mutual interest, including on government finance statistics (GFS) is the only example of a formal mechanism (e.g., working parties, task forces) to maintain close liaison between GFS compilers and users of the statistics. However, compilers in the MFDP are open to assist all users when required.

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

Confidentiality of the data is protected under the Finance and Audit Act (1970) as well as the Financial Instructions. Chapter one lays out the financial responsibilities of government officers.

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

There are legal provisions for the MFDP to prepare the Annual Statements of Accounts from which GFS are derived. The mandate does not specify that only audited fiscal data must be reported.

The final actual data on local government units¹³ are published in audited reports, which are produced for each unit. No consolidated final actual data are reported on the local government subsector as a whole. The Ministry of Local Government (MLG) produces a Recurrent Budget publication that consolidates budget data for all local government agencies. In that publication, unaudited, partial,¹⁴ actual data, are published for the local governments. Computerized consolidation of actual data and introduction of GFS according to *1986 GFS Manual* is necessary at MLG.

0.2 Resources

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

The staff and other resources dedicated to compiling GFS are adequate. The training of staff is mostly on-the-job, but there are cases of external training in both debt statistics and GFS.

The staff resources dedicated to compiling GFS according to the *1986 GFS Manual* methodology for publication in the IMF's *Government Finance Statistics Yearbook (GFSY)* are insufficient. At most, two officers are responsible for compiling GFS for that purpose. It has been difficult to retain well-trained officers in the job because of movements to better paid jobs. Lack of adequate training courses/seminars/workshops regionally, other than IMF courses, has hindered the effective compilation of fiscal statistics.

The GFS and the supporting accounting systems are running on an old mainframe. Therefore, they are not adequate for accurate and timely reporting. However, the first steps have been taken to computerize the Accounting and Budgeting System to make the best use of modern technology, which could automatically provide a variety of reports on government activities and balances. This is expected to improve the accuracy and timeliness of GFS.

¹³ The local government subsector of Botswana is comprised of nine district councils, twelve land boards, two city councils and four town councils.

¹⁴ Covers well over 90 percent of local governments data.

Efforts are being made to encourage the retention of experienced staff, e.g., through short-term training courses (usually abroad) and faster promotions (after two years in a position instead of the current three years).

0.2.2 Measures to ensure efficient use of resources are implemented.

The costs associated with compiling GFS are not yet measured.

0.3 Quality awareness

0.3.1 Processes are in place to focus on quality.

Quality is recognized by the MFDP staff as the cornerstone of statistical output. This is supported by the application of standards presented in the Finance and Audit Act (1970) and Financial Instructions and Procedures based on section 44 of that Act.

0.3.2 Processes are in place to monitor the quality of the collection, processing, and dissemination of statistics.

Processes are not fully in place to monitor and improve adequately the quality of compiled and disseminated GFS.¹⁵ When monitoring and planning, improvements to statistical quality, international statistical, and accounting standards will be taken into account.

Fiscal data are compiled and audited against published accounting standards. Within a period of eight months after the close of each financial year, the Accountant General is required to have prepared, signed, and transmitted the Annual Statements of Accounts to the Auditor General for auditing. Within four months, the Auditor General shall send to the Minister of Finance and Development Planning audited accounts and statements.

Some systematic arrangements are in place to obtain feedback from users of GFS, particularly institutional users (see 0.1.2 in this section).

0.3.3 Processes are in place to deal with quality considerations, including trade-offs within quality, and to guide planning for existing and emerging needs.

Although accounts are “accurate, reliable, and comprehensive data,” there is a lag in the publication of data. In fact, only 12 months after the end of the reference fiscal year, the MFDP publishes audited annual GFS. This results in considerable delays in the publication of

¹⁵ The first steps have been taken to computerize the Accounting and Budgeting system to make the best use of modern technology.

GFS. However, monthly GFS are produced for internal use but are not published or released to the general public.

Quality is taken into account in statistical planning, and some mechanisms are in place aimed to address new and emerging data requirements, particularly for data requests from other government ministries.

1. Integrity

1.1 Professionalism

1.1.1 Statistics are compiled on an impartial basis.

Data collection, compilation, and dissemination of consistent GFS by the MFDP are supported by specific laws and guidelines. The MFDP's guidelines call for the proper use of data sources in compiling GFS (see *Financial Instructions and Procedures based on Finance and Audit Act, 1970*). The MFDP collects revenue, grant, expenditure, and financing data.¹⁶

The MFDP is involved in seminars and conferences, but it has not systematically promoted professionalism through analytical work, publication of methodological papers, or participation in, and follow-up on lectures, seminars, or conferences.

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

There is no evidence that statisticians are subject to political influence in choosing the most appropriate sources and methods for compiling GFS. There is no evidence that changes to statistical processes are subject to political influence. However, the implementation of the new GFS methodology would require high level support. Hence, decisions to increase the frequency and timeliness of the data or to publish preliminary figures and estimates would need to take political considerations into account.

1.1.3 The appropriate statistical entities are entitled to comment on erroneous interpretation and misuse of statistics.

The MFDP staff can provide expert advice on technical (not policy) aspects of GFS, when necessary.

The MFDP staff has no platform to comment publicly on the misinterpretation or misuse of statistics. The Minister of Finance and Development Planning pronounces GFS data in his

¹⁶ The MFDP contracts all loans taken by the central government.

delivery of the Budget Speech. The Permanent Secretary responds to any issue on technical aspects of GFS.

Explanatory material is provided (e.g., to the press), to prevent misinterpretation of GFS, usually in the form of 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 Finance and Audit Act,¹⁷ which broadly governs the collection of source data and the dissemination of comprehensive annual GFS, is freely disseminated to the public.

Restrictions on public access to the current year monthly GFS data are not identified and explained. The data are mostly used internally.

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

Since the fiscal data are compiled and processed in the MFDP, some MFDP's departments have a clear access to it. The MFDP compiles monthly and quarterly data on the Consolidated and Development Funds (the consolidated central government) for internal policy purposes. However, these data are not published by the MFDP. The internal MFDP's use of raw data is not announced to the public. The monthly data are shared with BoB compilers on a quarterly basis,¹⁸ who aggregate and publish the data on a quarterly basis in the BoB's *BFS*. Both the CSO and the BoB have access to different fiscal data before publication.

The special arrangement under which the CSO, the BoB, and other government units have accessed to GFS before publication, is not identified and made public.

The Minister of Finance and Development Planning lays the Annual Statements of Accounts (the GFS accounts for central government), together with the Auditor General's certification in the National Assembly. This is usually within 12 months after the end of the financial year to which the accounts and statements relate.

The publication of the budgetary central government data in the GFS format is part of the Budget Speech documents issued by the MFDP and are approved by the Cabinet and

¹⁷ *Financial Instructions and Procedures*, based on Finance and Audit, is just for internal use.

¹⁸ BoB receives each quarter monthly data for three months. The lag for the latest month is two months. According to MFDP's officials, there is no restriction for BoB to receive the monthly data on a monthly basis, if requested.

ultimately the Parliament. However, the approval processes for publication of GFS are not made public through the Appropriation Bill in Parliament.

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

The MFDP's GFS data released by the MFDP, the BoB, and the CSO are clearly identified as sourced from the MFDP.

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

Explanations (but not advance notice) are given in GFS publications and/or in special publications directed to the same audience as the GFS publications of methodological or other changes (such as introduction of new accounting entities) that materially affect the published data.

Prominence is given in the publication of GFS to any changes, which cause a break in the time series. There is no evidence that major changes have been preceded by advance notice.

1.3 Ethical standards

1.3.1 Guidelines for staff behavior are in place and are well known to the staff.

The compilation and dissemination of GFS are done by the MFDP and are governed by a published *Finance and Audit Act 1970* that ensures that data are compiled and the results presented according to strictly professional considerations. The adherence to the 'code of conduct' is ensured by applying sanctions if the code is breached. Any officer or auditor, who knowingly certifies or verifies any false statement or account to the Permanent Secretary shall be guilty of an offence. The sanctions are significant and made clear in the Financial Instructions.

It is not seen as necessary by the MFDP's authorities to remind the staff periodically of the guidelines of ethical standards.

2. Methodological soundness

An interim period is provided for countries that have yet to adopt *2001 GFS Manual*, during which such countries will be assessed on the basis of the *1986 GFS Manual* guidelines outlined in the GFS' DQAF. Countries that have largely adopted the *2001 GFS Manual* 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 *2001 GFS Manual*.

2.1 Concepts and definitions

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

Compilation and dissemination of GFS for central government in the MFDP's *Annual Statements of Accounts* are largely based on the 1986 methodology of the IMF, as promulgated in the *1986 GFS Manual*. GFS in Botswana covers all financial assets and liabilities of units within the central government.

Compilation and dissemination of GFS on local governments¹⁹ by the MLG are not based on the recommendations of the *1986 GFS Manual*. Therefore, adjustments have to be made to prepare these data for publication in the IMF's *GFSY*.

No concrete plans have been made yet by the authorities in Botswana to implement an accrual framework for the government finance accounts. However, while developing the government's Accounting and Budget System, consideration is being given to accrual accounting.

2.2 Scope

2.2.1 The scope is broadly consistent with internationally accepted standards, guidelines, or good practices.

The scope of GFS, as presented in the MFDP's *Annual Statements of Accounts*, covers all central government activities. The MLG's *Recurrent Budget Publication* comprises all activities of local governments. The final actual data on local government agencies are published in audited reports, which are produced for each agency of the local government. Taken together, GFS covers the complete general government (GG) sector—central and local governments—but GG data are not presented on a consolidated basis.

Revised estimates on GFS data are produced once a year in February²⁰ and published in that month in the next year's Budget Proposal.²¹ The data covers the full central government subsector. This revision is replaced by actual GFS, as reported in the MFDP's *Annual Statements of Accounts*, published a year later. The IMF's *Government Finance Statistics*

¹⁹ Local government operations represented about 3 percent of general government operations in 1994, according to data on local government activities supplied by the MFDP.

²⁰ These provisional data are based on nine months of actual cash flow data (for April to December) and three months of estimates (for January to March).

²¹ The fiscal year is April 1st to March 31st.

Yearbook (GFSY) covers all transactions and debt within its scope—to the standard specified under the 1986 methodology (Tables A through F).

Tables on 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,²² these data are close to the gross debt for the general government.

Except for the revised administrative data mentioned above, all data are complete and actual when published; therefore, the scope is complete upon publication. This has resulted in a significant lag for the central and local government data (see 3.13 and 4.2 in this section).

2.3 Classification/sectorization

2.3.1 Classification/sectorization systems used are broadly consistent with internationally accepted standards, guidelines, or good practices.

Revenue, expenditure, and financing data are broadly classified using the methodology set out in the *1986 GFS Manual*. As classified in the MFD's *Annual Statements of Accounts*, the revenue item "mineral revenue" deviates from international standards, as well do the expenditure items "other charges" and "development expenditure."²³

The sectorization is broadly consistent with the *1986 GFS Manual* methodology.

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

2.4 Basis of recording

2.4.1 Market prices are used to value flows and stocks.

All flows are measured in cash or cash equivalents.

Domestic debt is valued at face value. The stock of external debt (consisting of loans only) is valued at current market prices (revalued using the end of the period exchange rate).

²² Local Authorities borrow mostly from central government's Special Funds, such as Public Debt Service Fund, Revenue Stabilisation Fund, and Domestic Development Fund.

²³ "Mineral revenue" consists of royalties, dividends, and a mineral tax, and is misclassified as tax revenue. A large part of the revenue is royalties and dividends that should be classified under nontax revenue, according to the *1986 GFS Manual*. On the expenditure side, "other charges" should be reclassified to other purchases of goods and services, subsidies, and current transfers, according to *1986 GFS Manual*. Likewise, "development costs" should be divided into capital transfers and capital investment (gross fixed capital formation and purchases of land).

International transactions are converted into national currency using the midrate between buying and selling market rates on the date of recording.

2.4.2 Recording is done on a accrual basis.

Transactions are recorded when payments are made or received.

2.4.3 Grossing/netting procedures are broadly consistent with internationally accepted standards, guidelines, or good practices.

Practically all transactions (including the sales of market establishments) are recorded on a gross basis. Even refunds of revenue are recorded on a gross basis. *1986 GFS Manual* recommends a net recording in the latter case.

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.

Data covering the full range of financial stocks and flows are provided from administrative systems for central government. Although there is delay in the compilation of data on local governments, a full range of financial stocks and flows are provided. Data on these two types of subsectors cover entities of the general government.

Data are consolidated for the central government sector (Consolidated and Development Fund). Annual data on central government are made available with a 12-month lag.²⁴ Monthly fiscal data are compiled, and the level of accuracy is the same as audited annual fiscal data.

Data are not consolidated for the general government sector, but available information on central government and local governments would allow such consolidation for these two subsectors.

No concrete plans are in place to routinely collect annual final data on the consolidated local government subsector. Local governments data, for submission to the IMF's *GFSY*, are collected from audited income and expenditure statements and the balance sheets (provided on cash basis), and are completed sometimes with a lag of two to three years. This is due to

²⁴ The accounts for March, which is the last month of the financial year, are kept open for about three months so that all rectification entries can be encompassed in the final account.

lengthy reporting and auditing processes. All data are available in sufficient detail but needs some rearrangement.

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

The most detailed data of the accounts of Consolidated and Development Fund (central government) are sufficiently detailed for GFS purposes and are just reclassified to conform to aggregate GFS categories. As classified in the MFDP's GFS, the revenue item, "mineral revenue," and aggregated expenditure items, "other charges" and "development expenditure," are not in line with *1986 GFS Manual* definitions. The details of these items are though sufficient for appropriate reclassification.

Budget estimates do not include provision for automatic derivation of GFS items from budget items.

The timing of recording and valuation of operational source data sent to compilers are consistent with the *1986 GFS Manual* concepts.

3.1.3 Source data are timely.

Monthly central government data are available for internal use by the MFDP (on a provisional basis) and are timely (with a lag of less than a month after the end of the reference month but up to three months for March, the last month of the fiscal year). These data are not published by the MFDP. However they are published on a quarterly basis by the BoB, with a lag of two to three months (see 1.2.2 in this section).

Actual audited fiscal data for local governments are available with a two- to three-year lag after the end of the reference period. However, the MLG produces a *Recurrent Budget* publication that consolidates budget data for all local government agencies. In that publication, actual unaudited partial²⁵ data are published for the local governments with a 12-month lag.

²⁵ Covers well over 90 percent of local governments data.

3.2 Statistical technique

3.2.1 Data compilation employs sound statistical techniques.

The estimates of the last three months of central government data (Consolidated and Development Fund) by the MFDP are based on accepted statistical processes (including extrapolation and trends from previous years).

Data for local governments 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 primarily based on administrative records, and data adjustments and reclassifications appear to follow sound statistical techniques.

3.3 Assessment and validation of source data

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

Data gaps occur for local governments regarding GFS compilation for submission to the IMF's *GFSY*, and efforts are applied to encourage timely and complete reporting for that subsector.

Accuracy is clearly favored at the expense of timeliness. In general, the published data have been audited by the Auditor General.

Revised estimates on GFS data for central government (which contain estimates for three months) are replaced by final data in the following year's publication. Other data are published only after audited data become available, except for the actual partial data on local governments published in the MLG's *Recurrent Budget* (see 3.1.3 in this section)

Monthly and quarterly central government data are produced in the MFDP for internal purposes to guide policy and are sufficiently accurate for fiscal development and analysis. Monthly data are used to revise the current year budget for central government. GFS for submission to the IMF's *GFSY* are only provided annually, and are less useful for policy purposes.

GFS general government data are not compiled. Central and local governments data are identified as actual, revised estimates (administrative data), and forward budget estimates.

3.4 Assessment and validation of intermediate data and statistical outputs

3.4.1 Main intermediate data are validated against other information where applicable.

Since the MFDP is the main producer of GFS and shares the data with other agencies, the likelihood of inconsistency is small. Because of different classification structures used by GFS and the local governments, some inconsistencies might arise in the presentation of main statistical outputs on local governments.

3.4.2 Statistical discrepancies in intermediate data are assessed and investigated.

The likelihood of discrepancies in intermediate data series is small. In some cases, data on financing are collected from different sources within the MFDP and may not reconcile, but some efforts have been made to reconcile the data. The magnitude of these discrepancies is usually very small.

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

Both the CSO and the BoB make use of the MFDP's financial data, which are consistent with the aggregated data compiled by the Accountant General. The Accountant General's audited data are considered more reliable. The CSO and the BoB also make use of data on external financing compiled by the Accountant General. Financing data are also available for the local governments.

Where financing flows differ from changes in stocks, the discrepancies are identified and investigated.

3.5 Revision studies

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

There are virtually no revisions, except for the updates (at the end of the calendar year/nine months of the fiscal year) to the annual budgetary central government data (see 2.2.1 in this section). Consolidated central government final data are later compared with the annual revision of the budgetary central government data. There are no revision studies since no revisions are made to actual GFS.

4. Serviceability

4.1 Relevance

4.1.1 The relevance and practical utility of existing statistics in meeting users' needs are monitored.

Annual consolidated central government statistics are compiled with the same time frame as for the budget preparation. These data are used in the process of determining and evaluating fiscal policy.

Monthly GFS for the consolidated central government are available within a timeliness of one month allowing selected users²⁶ to assess the degree to which government is achieving its stated overall fiscal policies.

Feedback from users is not sought on a regular basis.

4.2 Timeliness and periodicity

4.2.1 Timeliness follows dissemination standards.

Consolidated central government operations data in a summary format are produced monthly with a lag of three to four weeks—for internal use—and in significant detail, annually. The annual data are published by the MFDP with a 12-month lag after the end of the reference year. Aggregated quarterly consolidated central government data, compiled and processed by the MFDP, are published by the BoB with a two- to three-month lag.

Consolidated general government operations data are not compiled. Consolidated local government operations data are not published annually, but operations of each local government agency are published with a lag of two to three years. Partial actual annual data on local governments are published in the MLG's *Recurrent Budget* with a 12-month lag after the end of the reference year.

Consolidated central government debt is produced by the MFDP in a summary format on a monthly, quarterly, and annual basis. However, only annual debt is published in the MFDP's *Annual Statements of Accounts* with a 12-month lag after the end of the reference year. In that publication, contingent liabilities are also published separately with a 12-month lag. Consolidated central government quarterly debt data are disseminated to the BoB on quarterly basis,²⁷ but these data are not published by the BoB in its monthly *BFS*.

²⁶ Some departments of the MFDP and the BoB.

²⁷ Or on demand by BoB but not to any sources outside the Government.

4.2.2 Periodicity follows dissemination standards.

Comprehensive annual GFS on consolidated central government—both on its operations and debt—are published with a 12-month lag after the end of the reference year in MFDP's *Annual Statements of Accounts*. More aggregated quarterly data on consolidated central government operations are published by the BoB with a two- to three-month lag. This also compares with the GDDS recommendation to publish annual consolidated central government data within six to nine months after the reference period (monthly data within one month under the SDDS requirements).

Data on general government operations are not compiled. This compares with the GDDS encouraged practice to publish annual general government data within six to nine months of reference period (within two quarters under the SDDS requirements).

Monthly, quarterly, and annual debt data on consolidated central government are produced by the MFDP. However, only annual debt data are published by MFDP. This compares with the GDDS' recommended practice to publish annual (quarterly encouraged) consolidated central government debt data within one to two 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 within the dataset.

Major GFS aggregates on central government—such as total expenditure classified by economic type or functions (Table B and C in IMF's *GFSY*), the deficit/surplus, and financing—are consistent. In addition, the Statement of Assets and Liabilities is consistent with the statement of Consolidated Cash Flows. The MFDP, the CSO, and the BoB have all identical coverage for the central government (Consolidated and Development Fund).

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

Explanations for significant departures from expected trends—either positive or negative—arising from changes in fiscal policy and/or economic developments, are given in notes. These developments are outlined in the Minister of Finance and Development Planning's Budget Speech each year. Consistency in classification or

methodological treatment is viewed as important by MFDP staff; they endeavor to maintain a consistent time series at all times.

Previously released time series are not adjusted to account for discontinuities arising from methodological developments, changes in the statistical system, etc.; but breaks in time series are clearly identified, and the reasons are given briefly in notes.

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

GFS, BOP, and national accounts data are compiled by three different institutions. However, data for the central and local governments are derived from the same source and are therefore highly consistent. In some cases, data on financing from different sources within the MFDP may not reconcile, but efforts have been made to reconcile the data.

Annual fiscal data on the central government are based on the transactions of the Consolidated and Development Fund of the budgetary central government rather than transactions of other agencies. The GFS financing data are broadly consistent with banking data and changes in government financial assets and liabilities held by other sectors.

GFS foreign debt, foreign grants, and financing data are used in compiling BOP data.

4.4 Revision policy and practice

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

GFS revisions are limited to current annual budgetary central government data (provisional data), and these are identified in the published statistics. The revised annual budgetary central government data follow the regular publication schedule of the Budget Speech. Quarterly GFS on consolidated central government produced by the MFDP and published by the BoB are not revised because they are actual data.

4.4.2 Preliminary data are clearly identified.

The revised annual budgetary central government data are published in the Budget Speech of the following year. The estimated or revised GFS are clearly identified in the MFDP and the CSO's publications, but not in BoB's monthly *BFS*. The coherence between revised and final data are sufficient to allow revised administrative data to be used with confidence for policy determination and analysis.

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 annual GFS in the MFDP's *Annual Statements of Accounts* are presented in a way which broadly allows major aggregates/balancing items to be identified and related to detailed underlying data. Some aggregates do though deviate from international standards and guidelines (see section 2.3.1 in this section).

The information presented in the MFDP's *Annual Statements of Accounts* is suitable for use in the budget development and monitoring process and other government economic and fiscal policy development.

The MFDP's *Annual Statements of Accounts* on central government provides detail broadly equivalent to that set out in the *1986 GFS Manual* tables. The MLG's *Recurrent Budget* comprises all activities of local governments but is not set out in *1986 GFS Manual* tables. Consolidated data on the general government is not provided.

Both the CSO and the BoB present central government data in their publications in a way that facilitate proper interpretation and meaningful comparisons, with the exception of some minor deviations from international standards (see section 2.3.1 in this section).

The MFDP's Financial Statements Tables,²⁸ the CSO, and the BoB published tables on GFS. The MFDP's tables show actual GFS time series for six years, and the CSO's and the BoB's tables show actual GFS time series for seven years.

5.1.2 Dissemination media and formats are adequate.

The MFDP dissemination policy relating to GFS (the MFDP's *Annual Statements of Accounts* and *the Budget Proposal*) fulfills the reporting requirements of the Finance and Audit Act and is clearly publicized. Dissemination media and format are adequate.

Quarterly government finance statistics published in the BoB's *BFS* are adequate.²⁹

The CSO's and the BoB's Internet websites contain some annual and quarterly fiscal data.

²⁸ The Financial Statements Tables are part of the Minister of Finance's Budget proposal.

²⁹ Five tables are published. The first table shows the main aggregates of revenues and expenditures, the overall deficit/surplus, and the financing and its main sources. The second table shows the main revenue items of the consolidated central government. The third table shows the recurrent expenditure by function, and the fourth table, the development expenditure and net lending by function. The last table shows the breakdown of central government net lending.

5.1.3 Statistics are released by a preannounced schedule.

The MFDP's *Annual Statements of Accounts*, in accordance with the Finance and Audit Act, are published in March each year; the dissemination date is not specified.

The actual date of GFS official publications is not preannounced. However, they are released at the time of the Minister of Finance and Development Planning's Budget Speech presentation to the National Assembly in February. Thus, the announcement of the date on which the Budget Speech is tabled in the National Assembly approximates to a preannounced release date.

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

All statistical publications are made available to all users simultaneously and without preferential treatment for selected users.

5.1.5 Nonpublished (but nonconfidential) subaggregates are made available upon request.

Upon request, nonconfidential data are made available. However, nonpublished data, though nonconfidential, can only be released upon request after seeking permission from the relevant authorities. Terms and conditions on which these data could be provided are not published in GFS publications.

5.2 Metadata accessibility

5.2.1 Documentation on concepts, scopes, definitions, classifications, basis of recording, data sources, and statistical techniques is available, and differences from internationally accepted standards, guidelines or good practices are annotated.

Concepts, sources, and methods are documented in part, and revisions to concepts, sources, and methods are published in part at the same time as the data they affect.

Concepts, sources, and methods documentation does not identify the differences from internationally accepted standards in the *1986 GFS Manual*. The concepts, sources, and methods documentation provides some description of coverage but no in depth description of compilation problems are included with the data.

A bridge table showing the links between source data and GFS is not available. However, according to MFDP's officials, it can be made available as needed.

5.2.2 Levels of detail are adapted to needs of the intended audience.

No detailed technical descriptions of concepts, sources, and methods that would allow users to assess the strengths of GFS, are published. However, brief descriptions of concepts, sources, and methods are provided to users, along with the data.

5.3 Assistance to users

5.3.1 Contact person for each subject field is publicized.

Contacts directly through phone, fax, and e-mail to different departments of the MFDP are publicized on the MFDP's Internet website; in most cases, the contact persons for GFS are not publicized.

Prompt and knowledgeable service and support are made available, but no measures have been taken to educate the users of GFS.

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

No catalogues of MFDP publications, documents, and other services, including information on any charges, are available.

Table 1.4 Botswana—Data Quality Assessment Framework: Summary Presentation of Results for Government Finance Statistics
(Compiling agency: Ministry of Finance and Development Planning)

Key to symbols: NA = Not Applicable; O = Practice Largely Observed; LO = Practice Largely Not Observed; NO = Not Observed; SDDS = Complies with SDDS Criteria									
Element		NA	Assessment				Comments on Assessment	Plans for Improvements and Target Dates	
			O	LO	LNO	NO			
0. Prerequisites of quality									
0.1 Legal and institutional environment			X						Consultants have been engaged to computerize the Accounting and Budgeting system.
0.2 Resources				X					
0.3 Quality awareness				X			Trade-offs among dimensions of quality are not acknowledged.		
1. Integrity									
1.1 Professionalism			X						
1.2 Transparency				X			Monthly GFS are not released simultaneously to all interested parties. Restrictions on public access to GFS are not identified and explained. Advance notice is not given to changes in methodology, source data, and statistical techniques. However, quarterly GFS are released by the BoB to all interested parties.		
1.3 Ethical standards			X						
2. Methodological soundness									
2.1 Concepts and definitions				X			GFS for local governments is no based on the recommendations of the 1986 GFS Manual.		MFDP's Strategic Plan: To improve financial systems.
2.2 Scope				X			GFS tables on stocks and flows are not available for the general government.		
2.3 Classification/sectorization				X			GFS classification for central government is mostly consistent with international standards, but it is less consistent for local governments.		
2.4 Basis for recording				X			Refunds of revenue are recorded on a gross basis (1986 GFS Manual recommends a net treatment). There are some significant misclassification for central government's transactions (e.g., mineral revenue).		MFDP plans to make the classification consistent with international standards in short-term.

Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Not Observed; SDDS = Complies with SDDS Criteria

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Element	NA	Assessment			Comments on Assessment	Plans for Improvements and Target Dates
		O	LO	LNO		
3. Accuracy and Reliability						
3.1 Source data			X		Data are not consolidated for general government. Comprehensive consolidated data on local government are not available.	
3.2 Statistical techniques		X				
3.3 Assessment and validations of source data			X		Accurate and comprehensive data are clearly favored at the expense of timeliness. Frequent data gaps occur for local governments, when compiling GFS.	
3.4 Assessment and validation of intermediate data and statistical outputs		X				
3.5 Revision studies	X				There are no revision studies because GFS are compiled from audited data, which are not revised.	
4. Serviceability						
4.1 Relevance			X		Monthly central government data are relevant but not released to all potential users. GFS for publication in IMF's <i>GFSY</i> are disseminated with considerable lag.	
4.2 Timeliness and periodicity				X	Detailed consolidated central government data are disseminated annually with a 12-month lag. No data on general government are disseminated, and consolidated data on local government are provided with a two- to three-year lag.	
4.3 Consistency		X				
4.4 Revision policy and practice			X		The practice of not revising quarterly GFS on consolidated central government is not made clear to the public.	

Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Not Observed; SDDS = Complies with SDDS Criteria

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Element	NA	Assessment			Comments on Assessment	Plans for Improvements and Target Dates
		O	LO	LNO		
5. Accessibility						
5.1 Data accessibility			X		There is no preannounced schedule for the release of GFS, but data are available to all users when released.	MFDP's Strategic Plan—to improve accessibility of information to all stakeholders by 2003.
5.2 Metadata accessibility				X	Detailed technical descriptions of concepts, sources, and methods are not published. Deviation from internationally accepted standards are not identified.	
5.3 Assistance to users			X		No contact persons or publicly usable e-mail addresses are in annual GFS publications or on the MFDP's Internet website, but prompt and knowledgeable support is made available to users.	

V. MONETARY 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 Bank of Botswana (BoB) is responsible for compiling and disseminating the monetary survey, which includes the BoB's analytical accounts and the aggregated survey of the five commercial banks operating in the country. It is the sole official agency in charge of monetary statistics.

Although the BoB's Annual Report states that one of the BoB's primary responsibilities is the "production of research and statistical reports...as prescribed by the Bank of Botswana Act, 1996," this function is not explicitly incorporated in the Act but rather can be implicitly assumed as an extension of the BoB's principal objectives (section 4) and its role as adviser to the government (section 43). Nothing is said on the responsibility of the BoB for disseminating statistics, but the Banking Act, 1995 allows the BoB to publish "in whole or in part" any information received, so long the confidentiality of the information is preserved (section 48).

The Bank of Botswana Act, however, entitles the BoB to "call for such information as it may require from any person" and stipulates a penalty to "any person who fails to supply any information called by the Bank...or who supplies any false or misleading information" (section 59). In the same manner, the Banking Act mandates that "every bank shall, not later than twenty-one days after the last day of each calendar month, submit to the Central Bank...a statement of its assets and liabilities" and foresees a fine in case of noncompliance (section 20).

The department of the BoB in charge of the compilation and dissemination of monetary statistics is the Research Department (RD), mainly through the Monetary Statistics Section (MSS) of the Statistics and Information Service Unit (SISU). The Money and Financial Markets Unit (MFMU) prepares an internal monthly briefing with monetary data for the exclusive use of the BoB's Board members and heads of departments. The basic information for the analytical accounts of the BoB is the balance sheet, produced by the Accounting Department (AD).

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

The MSS does not have electronic access to the information produced by the AD and receives a hard copy of the monthly balance sheets from the AD with a time lag of more than

ten weeks. Commercial banks and other depository corporations (ODCs) submit a hard copy of their monthly balance sheets and 21 schedules.

There are no formal mechanisms in place to facilitate data sharing and cooperation between the BoB and other official agencies. The Ministry of Finance and Development Planning (MFDP) has access to the data produced by the BoB through its members at the Board and also, upon direct request to the RD.

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

Section 19 of the BoB Act states that “no member, officer, or employee of the Bank,...shall disclose to any person any information relating to the affairs of the Bank, or of any bank, financial institution, business, or other person, which he has acquired in the performance of his duties or the exercise of his functions.”

Additionally, section 48 of the Banking Act prohibits the publication of any information “which might disclose the affairs of a bank or customer, unless the prior consent of that bank or customer...has been properly obtained.” Financial institutions are aware that the information provided by them will be handled in a confidential manner, and there are no known cases where the confidentiality was violated.

Data of commercial banks are disseminated in an aggregated form. In cases where there are only one or two institutions in a subsector (merchant banks, building society, and savings bank), the information disseminated by the BoB is of a nonconfidential nature.

The BoB has in place a new firewall software, to prevent illegal access by third parties to the information stored in its computerized system.

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

The Banking Act provides for a mandatory report of the monthly balance sheets of the commercial banks within 21 days after the end of the reference month and foresees penalties in cases of noncompliance.

All five commercial banks and the two merchant banks operating in the country submit regularly their monthly balance sheets and 21 supplementary schedules for supervisory and monetary statistics purposes. The building society and the savings bank report on a quarterly basis.

0.2 Resources

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

In general, staff and computing resources are adequate for compiling monetary statistics. Fifty-four persons, including managerial, professional, and clerical positions, constitute the staff of the RD of the BoB. The section in charge of monetary statistics, MSS, has seven professionals working full time on the compilation of monetary statistics—one senior economist, three economists, and three senior statistical assistants. Of these seven people, three hold a master's degree (two of them have pursued studies in the UK and USA), one a bachelor's degree, one a diploma, and the remaining two a certificate.

Only two members of the staff of the MSS have attended a regional IMF's Monetary and Financial Statistics Course (in Abidjan, Côte d'Ivoire), and another one has participated in a regional IMF course on financial programming. The training of human resources of the MSS consists almost exclusively of participation in conferences, and employees with a qualification below a bachelor are not eligible for training courses. The staff showed a good knowledge of the methodology employed in compiling monetary statistics.

Six out of the seven people working in the MSS have at their disposal a personal computer. Excel is the only software used for compilation of monetary statistics, and there are no computer applications in use for econometric purposes, cross-checking procedures, or seasonal adjustment of variables. Also missing is the software that would allow the MSS to capture the basic monetary data for the BoB directly from the records of the AD. At the suggestion of the Technology and General Services Department (TGS) of the IMF, the BoB recently installed a databank at the MSS. A user guide was provided at the time of the Fund's mission. However, this has not proved very helpful in practice, and the Fund subsequently committed to preparing a more user-friendly manual.

Due to the fact that the information is received by the MSS as a hard copy and not in an electronic format (for the commercial banks as well as for the BoB), the data must be manually inputted to produce the consolidated balance sheet of the commercial banks and the monetary survey. This last step is done electronically through the use of an Excel worksheet.

0.2.2 Measures to ensure efficient use of resources are implemented.

In addition to the allocation of resources through the normal budgeting process, the RD developed a strategic framework for the years 2001–2003 and a work program for the year 2001.

0.3 Quality awareness

0.3.1 Processes are in place to focus on quality.

Although there are no processes or activities that specifically focus on quality, the mission observed that there is recognition throughout the BoB of the importance of the quality of the statistics to build trust among users.

0.3.2. Processes are in place to monitor the quality of the collection, processing, and dissemination of statistics.

In terms of the collection and processing of monetary statistics, in-built processes exist to monitor the accuracy of information received from the commercial banks. User feedback on the timeliness, accuracy, and comprehensiveness of disseminated statistics are not sought, and the BoB does not resort to internal or external review mechanisms (e.g., advisory council or technical committees) to review the quality of its monetary statistics, their adherence to international standards, or to be informed of latest methodological developments.

0.3.3. Processes are in place to deal with quality considerations, including trade-offs within quality, and to guide planning for existing and emerging needs.

Although there is recognition by management of the BoB of the trade-off among the dimensions of data quality, no formal mechanisms exist to address quality considerations and to seek user feedback that would guide planning for emerging data needs.

1. Integrity

1.1 Professionalism

1.1.1 Statistics are compiled on an impartial basis.

Although there are no written rules to protect the staff of the MSS against pressures that can jeopardize their work, they feel that the quality of the compilation has never been negatively affected. The head of the RD has been appointed through a public opening, assuring a higher degree of professionalism.

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

Since the compilation of monetary statistics is based on the balance sheets of the reporting institutions, there is no room for data manipulation; as long as the institutions follow acceptable accounting standards. The monetary survey includes all the commercial banks operating in the country, so there is no possibility to influence the results by changing the source of information. However, the noninclusion of the merchant banks, the building society, and the savings bank renders the monetary survey incomplete although only five percent of the deposits and fifteen percent of the loans of the system are left out of the survey.

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

In cases of misinterpretation of its statistics, the BoB has the opportunity to comment and has done so, when there were misunderstandings on interest rates and the credit growth rate.

1.2 Transparency

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

In general, the public does not have easy access to information about the terms and conditions under which monetary statistics are compiled and disseminated. The BoB Act and the Banking Act are available on the BoB's Internet website, but, on the one hand, they deal with more general matters rather than focusing on monetary statistics, and, on the other, it is not guaranteed that all users of monetary statistics are aware of the possibility of accessing them on the Internet. More specifically, the BoB's Internet website does not contain a section on monetary statistics—the conditions under which they are compiled, methodology, advance release calendars, etc. Commercial banks, however, are aware of the use that will be given to the information provided by them and the confidentiality with which it will be handled.

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

Monetary statistics are disseminated by the BoB solely through its monthly bulletin *Botswana Financial Statistics (BFS)*, which is also published on the BoB's Internet website. There is an internal deadline for the publication of the *BFS*, but it is not known to the public and not always met. Early access to the information by senior staff of the BoB or by the MFDP has not affected the release schedule.

Prior to their publication, monetary data are available to the Governor of the BoB, members of the Board, and heads of departments. Because the MFDP appoints eight of the nine members of the Board (the Governor is appointed by the President), it also indirectly has early access to the information. Moreover, the members of the Board are briefed every month by the MFMU on the latest developments in the financial markets, receiving information of a confidential nature. This procedure is not known to the public.

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

The monthly *BFS* is clearly identified as a product of the RD of the BoB. The *BFS* contains tables with monetary and other sectors' information, and every table clearly identifies its sources, as is the case with publications of other official agencies.

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. However, the first page of the *BFS* contains a notice alerting readers to revisions in historical series, breaks, discontinuities, or changes in methodology. In an introductory section, the BoB comments on the most relevant changes observed during the reporting period and also provides detailed notes

explaining any methodological change that affects the published tables. Additionally, the tables contain methodological footnotes.

1.3 Ethical standards

1.3.1 Guidelines for staff behavior are in place and are well-known to the staff.

Section 18 of the BoB Act deals specifically with conflicts of interest of its Board members and its employees. Section 19 complements it, requiring from the personnel of the BoB an oath or declaration of secrecy on information related to the affairs of the BoB or any other bank or financial institution. A penalty of 25,000 pula or five years imprisonment is prescribed for violators. Employees are fully aware of these guidelines as they are also listed in the conditions of service they receive when they are hired.

2. Methodological soundness

2.1 Concepts and definitions

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

The methodological framework used by the MSS to compile the central bank survey and the commercial banks survey follows in general the guidelines of the Fund's *Monetary and Financial Statistical Manual (MFSM)*, except for the cases of deposits of local governments and the calculation of quasi-money. Additionally, there are shortcomings in the way commercial banks are applying the residence criterion when classifying deposits of nationals working and living abroad, and foreigners working and living in Botswana.

A monetary survey is compiled through the consolidation of the central bank survey and the aggregated sectoral balance sheet of the commercial banks. A fully comprehensive sectoral balance sheet for ODCs should include the merchant banks, the building society, and the savings bank.

The BoB's financial statements are prepared according to International Accounting Standards and audited jointly by two international firms of certified public accountants. Commercial banks' financial statements are also prepared according to International Accounting Standards.

2.2 Scope

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

As at end of September 2001, the depository corporations sector in Botswana comprised the BoB, five commercial banks, two merchant banks, one building society, and one savings bank. Other financial corporations operating in the country consisted of a state-owned development bank, a state-owned development corporation, nine insurance companies, 16 exchange houses, a trust fund, three asset management institutions, three medical aid societies, and three stock broking companies. The commercial banks concentrate approximately 95 percent of the deposits and 80 percent of the loans of the financial system.

The BoB collects monthly information for the commercial banks and the merchant banks, and quarterly data for the building society and the savings bank. Data reported cover the headquarters and the branches of the institutions. Only the information of the commercial banks is aggregated in the monetary survey, so the survey is not fully comprehensive. The BoB has plans to expand the survey to incorporate all ODCs operating in the country although no deadline has already been set for the task.

2.3 Classification/sectorization

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

The principles underlying the classification of financial instruments and the sectorization of institutional units are, in general, broadly consistent with the methodology of the Fund's *MFSM*. There are, however, the exceptions regarding deposits of local governments (included as part of bank obligations and not as part of net credit to general government) and the calculation of quasi-money. Following the classification recommended in the *MFSM*, economic units are grouped into financial corporations, nonfinancial corporations, general government, and households. One methodological shortcoming was detected in the accounts of residents and nonresidents. While accounts of foreign diplomats are correctly classified as accounts of nonresidents, the principle of "center of economic interest" is not systematically applied in the classification of accounts of foreigners living and working in Botswana, and of nationals living and working abroad, but rather the accounts are classified according to the nationality of the account holder.

With respect to financial instruments, the classification is based on the liquidity of the assets and liabilities. The *BFS* contains tables showing loans and deposits by maturity and by economic sector. Financial derivatives, repurchase agreements, and swaps are seldom used in Botswana.

For the year 2001, “other assets” and “other liabilities” constituted less than one percent of their totals at the BoB, while the proportions were five and six percent, respectively, for the commercial banks.

2.4 Basis for recording

2.4.1 Market prices are used to value flows and stocks.

The financial statements of the BoB are prepared on the historical cost basis as modified to include the revaluation of investments in foreign assets and liabilities and the results of the activities of a long-term fund invested in foreign financial instruments (Pula Fund). Fixed assets are kept at their acquisition (book) value and presented in the balance sheet net of their accumulated depreciation. Similar accounting principles are followed by the commercial banks.

Investment in foreign treasury bills, securities, and equities are stated at their market value at the end of the reporting period. Unrealized market revaluation gains and losses are transferred to the income statement in the year in which they arise. The liabilities arising from the issue of Bank of Botswana’s certificates (BoBCs) are stated by the Bank at a discount value, which excludes unearned interest included in the face value of the certificates.

Loans are valued by commercial banks based on gross outstanding claims, recording the provisions for loan losses, and overdue interest, as a negative asset deducting from the total loans.

Assets and liabilities denominated in foreign currencies are converted into pula using the midpoint between the buying and selling rate at the transaction date. Any change in the valuation in terms of pula of assets or liabilities denominated in foreign currency are transferred to a currency revaluation reserve.

2.4.2 Recording is done on an accrual basis.

In the financial statements of the BoB, interest income and expense are generally recognized in the income statement on an accrual basis. However, they are recorded as “other assets” or “other liabilities” and not together with the underlying instrument, as recommended by the Fund’s *MFSM*. Commercial banks record interest on an accrual basis and incorporate it as part of the total loan, in one case, and as a separate item under “other liabilities” for accrued interest on deposits.

2.4.3 Grossing/netting procedures are broadly consistent with internationally accepted standards, guidelines, or good practices.

Assets and liabilities in the monetary survey are aggregated by resident and nonresident positions. All assets and liabilities categories in the sectoral balance sheets are presented on a

gross basis. Overdrafts are recorded as loans to a transactor, without netting claims on a particular economic unit against the liabilities to the same unit or to other economic units.

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 MSS receives a hard copy of the balance sheets of the BoB and of the commercial banks, and 21 schedules from the commercial banks with supplementary information. The data collected allow an in-depth analysis by instruments and sectors, and cross-checks, except for the individual interbank position. Data are manually inputted into an Excel spreadsheet and electronically aggregated to produce the consolidated sectoral balance sheets and the monetary survey.

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

The accuracy of the data submitted by the commercial banks is satisfactory, and data are based on principles that follow international accepted standards and definitions, except for the case of accounts of residents and nonresidents.

The BoB is in the process of including the merchant banks in the monetary survey but has not yet taken any concrete action to request from the building society and the savings bank the monthly submission of their balance sheet. At present, this is the most important improvement plan foreseen at the BoB for monetary statistics.

3.1.3 Source data are timely.

Commercial and merchant banks submit their balance sheets and the corresponding schedules on a timely regular basis within 21 days after the end of the reference month. The building society and the savings bank are required to submit their data only on a quarterly basis, and they comply with this requirement.

The balance sheet of the BoB is available to the MSS with a lag of over ten weeks although it would be possible to transmit it electronically three weeks after month-end.

3.2 Statistical techniques

3.2.1 Data compilation employs sound statistical techniques.

Commercial banks do not experience any difficulty in providing the balance sheet and the required schedules. The combination of balance sheet and schedules permits a proper sectorization of the transactions. However, the manual input of the data can be a source of errors, and no computer programs are in place to perform consistency checks, identify misclassifications, or flag large variations in an automatic way. The checks are performed manually by the staff of the MSS.

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

The MSS does not estimate missing observation, which are left blank when they occur. There is no statistical software available for the seasonal adjustment of money supply.

3.3 Assessment and validation of source data

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

The report forms used by commercial banks were revised in January 2001. Revisions of the forms are done as the need arises, but there is no systematic policy of periodical revisions.

3.4 Assessment and validation of intermediate data and statistical outputs

3.4.1. Main intermediate data are validated against other information where applicable.

The MSS does not routinely validate its data against other internal or external sources. This is the case for instance with net credit to central government, which is not cross-checked with information of the MFDP, or with international reserves, which is not checked against the figures of the Balance of Payments Section of the RD. Monetary series are not compared with related series and indicators to check their consistency.

3.4.2. Statistical discrepancies in intermediate data are assessed and investigated.

No comprehensive secondary data sources are used for regular verification of the information produced by the MSS. Statistical discrepancies are detected only manually.

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

Once detected, statistical discrepancies are investigated, highlighted, and documented. When appropriate, they are reported to the pertinent commercial bank.

3.5. Revision studies

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

At the BoB, there is no stated policy to conduct studies or revisions on a routine basis that serve to improve the statistical process. Notwithstanding this, when the need arises, the BoB revises its compilation practices, as was the case with the revision of the report form for commercial banks in January 2001. Methodological changes triggered by these reviews are presented as notes in the introduction to the *BFS*.

4. Serviceability

4.1 Relevance

4.1.1 The relevance and practical utility of existing statistics in meeting users' needs are monitored.

The BoB does not get direct feedback from users of monetary statistics that would allow it to improve their quality and relevance. This fact does not prevent the BoB from introducing methodological changes when deemed relevant, as was the case when the Fund published its *MFSM*. The BoB is a member of the Southern African Development Community (SADC), and its staff participates in regular regional meetings where methodological issues are discussed.

4.2 Timeliness and periodicity

4.2.1 Timeliness follows dissemination standards.

The timeliness of the dissemination of the surveys lags well behind accepted standards. As of mid-October 2001, the latest available data correspond to end-June 2001, and the *BFS* with data at end-July 2001 was at that time in the process of printing. Especially worrying is the case of the analytical accounts of the central bank, which could be available within four weeks after the end of the reference month.

4.2.2 Periodicity follows dissemination standards.

The BoB survey, the consolidated commercial banks survey, the monetary survey, and other monetary data (e.g., sectoral distribution of loans, interest rates) are published on a monthly basis in the *BFS* and made available on the BoB's Internet website.

4.3 Consistency

4.3.1 Statistics are consistent within the dataset.

Some consistency checks are performed by the MSS, such as the reported position by the commercial banks at the BoB and its internal accounting records. Balance sheets are checked for discrepancies in the total of assets and liabilities. No consistency checks are performed on the individual interbank position because of lack of data, and there are no checks either on the consistency of stock and flow data.

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

The time series published in the *BFS* are generally consistent over time, and breaks in series are explained in the introductory notes but not clearly marked in the corresponding table.

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

The data published by the BoB is not cross-checked against other internal or external sources.

4.4 Revision policy and practice

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

Data published by the BoB tend to be final, so revisions are infrequent and documented in the introductory notes when they occur.

4.4.2 Preliminary data are clearly identified.

The tables in *BFS* do not contain any indication whether they are preliminary or final although the MSS tries to publish only final data. Revised data are not highlighted in the tables, except when they first appear.

4.4.3 Studies and analyses of revisions are made public.

Except for the explanatory notes in the introduction of *BFS*, studies containing methodological revisions are not available to the public.

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 *BFS* contains a section “BFS Highlights” that explains the major changes occurred in some variables and facilitates their interpretation by the public.

5.1.2 Dissemination media and formats are adequate.

Monetary data are available to the public solely through the publication of *BFS* and its posting on the BoB’s Internet website. The hard copy is distributed free of charge in Botswana to recipients included on a distribution list, and it is also available to anyone that requests it.

5.1.3 Statistics are released on a preannounced schedule.

There is an internal schedule for the production and publication of *BFS*, but the deadline is not always met. Users are not aware of this deadline.

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

Because the *BFS* is posted on the Internet and distributed through a mailing list, it is available to all users at the same time. Some users, however, can have early access before the *BFS* is published through direct contact with the RD.

5.1.5 Nonpublished (but nonconfidential) subaggregates are made available upon request.

Upon request, the MSS provide nonpublished (but nonconfidential) information at a major level of disaggregation.

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 internationally accepted standards, guidelines, or good practices are annotated.

No documentation is available on these different methodological aspects.

5.2.2 Levels of detail are adapted to the needs of the intended audience.

At present, no different levels of detail are available to meet the different needs of different users.

5.3 Assistance to users

5.3.1 Contact person for each subject field is publicized.

The *BFS* indicates that “for additional nonconfidential information on monetary and banking statistics, requests may be forwarded to the Director of RD in BoB,” and gives the postal address of the BoB.

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

At present, the BoB does not produce a catalogue with its publications but lists them in the second page of *BFS*.

Table 1.5 Botswana—Data Quality Assessment Framework: Summary Presentation of Results for Monetary Statistics
(Compiling agency: Bank of Botswana)

Key to symbols: NA = Not Applicable; O = Practice Largely Observed; LO = Practice Largely Not Observed; LNO = Not Observed; SDDS = Complies with SDDS Criteria

Element	NA	Assessment			Comments on Assessment	Plans for Improvements and Target Dates
		O	LO	LNO		
0. Prerequisites of quality						
0.1 Legal and institutional environment		X				
0.2 Resources			X		No statistical or database software in use. Few training opportunities for staff working on monetary statistics.	The Research Department is in the process of implementing a time series database.
0.3 Quality awareness			X		Recognition of the importance of quality, but no systematic processes are in place to foster it.	
1. Integrity						
1.1 Professionalism		X				
1.2 Transparency			X		Public not aware of terms and conditions under which statistics are compiled or of early internal government access to the information.	
1.3 Ethical standards		X				
2. Methodological soundness						
2.1 Concepts and definitions			X		Shortcomings in the treatment of deposits of local governments and the calculation of quasi-money.	
2.2 Scope			X		The monetary survey does not cover four deposit-taking institutions (10 percent of the banking system).	Plans to expand the monetary survey to include all ODCs in the short-term.
2.3 Classification/sectorization			X		Shortcomings in the application of the residence criterion by commercial banks.	
2.4 Basis for recording		X				

Table 1.5 Botswana—Data Quality Assessment Framework: Summary Presentation of Results for Monetary Statistics
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Element	NA	Assessment			Comments on Assessment	Plans for Improvements and Target Dates
		O	LO	LNO		
3. Accuracy and Reliability						
3.1 Source data			X		No comprehensive data collection system in place.	
3.2 Statistical techniques			X		No programs for seasonal adjustment of monetary aggregates.	
3.3 Assessment and validations of source data			X		Manual consistency checks by BoB. Periodic revisions of the report forms.	
3.4 Assessment and validation of intermediate data and statistical outputs			X		No routine cross-checking of information against other sources.	
3.5 Revision studies			X		Studies are carried out when the need arises but not on a routine basis.	
4. Serviceability						
4.1 Relevance			X		No feedback from users but methodological changes provided by compilers when deemed necessary.	
4.2 Timeliness and periodicity			X		Monetary survey produced with a three-month lag due to long delays in availability of the BoB's balance sheet.	
4.3 Consistency			X		Consistency checks performed between reported data and accounting records, but there are no consistency checks for individual interbank positions.	
4.4 Revision policy and practice			X		Infrequent but documented revisions. Public informed through explanatory notes in monthly bulletin.	

Table 1.5 Botswana—Data Quality Assessment Framework: Summary Presentation of Results for Monetary Statistics
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Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Not Observed; SDDS = Complies with SDDS Criteria

Element	NA	Assessment				Comments on Assessment	Plans for Improvements and Target Dates
		O	LO	LNO	NO		
5. Accessibility							
5.1 Data accessibility			X			Data disseminated through BoB's monthly bulletin. Deadline for publication not always met and not known by the public. Users can have early access through direct contact with compilers.	
5.2 Metadata accessibility				X		Some notes available, but available documentation not sufficient to meet users' needs.	
5.3 Assistance to users			X			Assistance available through an informal process.	

VI. 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.

According to the provisions of the Statistics Act of October 13, 1967, statistics may be collected in the area of balance of payments (BOP), but this act is not clear on which institution should be responsible for the collection of BOP data. In Botswana, the Bank of Botswana (BoB) is responsible for compiling and disseminating BOP statistics since the establishment of the BoB in 1975. However, the Bank of Botswana Act does not specify clearly that BoB is the designated agency to compile BOP statistics. Section 59 of the Bank of Botswana Act requires any person to provide any information the Bank might need to carry out its duty. No mention is made in this Act that enterprises are required to provide information. A similar limited regulation appear in the Banking Act, requiring persons to provide information to banks. Consequently, the legal framework for designating the responsibility to the BoB for BOP compilation is inadequate as no law or formal provision assigns the primary responsibility for the collection, processing, and dissemination of BOP statistics to the BoB. In spite of the inadequate legal framework, no impediments hamper the activities underlying the compilation of the BOP.

There are no working arrangements consistent with the assignment of the responsibility for the compilation of BOP data. In the area of surveys, BoB has no consultations with the CSO on any aspect of conducting survey. Working arrangements with other data providers meet BOP needs but are conducted on an ad hoc basis.

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

There are standing arrangements with data providers to report certain information at given intervals. Under these arrangements, the CSO provides data on merchandise trade, the Cash Flow Unit (CFU) of the Ministry of Finance and Development Planning (MFDP) provides monthly reports of international cash transactions passing through the governments' accounting system, and the Registrar of Insurance and Pension Funds submits quarterly returns from pension funds. The *Weekly Reports* on stock market activity by the Botswana brokers are also available. There is a good rapport between the BOPS and the top forty enterprises (accounting for about 90 percent of foreign total liabilities), and a relationship with the stock exchange, stock brokers, and nominee companies is emerging for reporting of portfolio flows and stocks.

The CSO provides its information on diskettes while the CFU provides its information on hard copies. Both the CSO and the CFU do not provide the data as they become available as

they are only provided after being called upon by telephone. Other data providers need to be chased, e.g., the Ministry of Education and the Department of Civil Aviation.

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

Section 9 of the Statistics Act protects the confidentiality of the information provided by respondents since it ensures that no information can be disclosed unless the respondent has given his consent in writing. The collection and compilation of data is supported by the secrecy provision of Section 19 of the Bank of Botswana Act, 1996. Under this Act, no employee of the BoB shall disclose to any person information relating to the affairs of the BoB, or any financial institution, business or other person, which he acquired in the performance of his duties.

The BoB has in place a new firewall software to prevent illegal access by third parties to the information stored in its computerized system.

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

Reporting of data for BOP purposes is mandatory, and the legal framework provides for the imposition of penalties for failure to provide the requested information. However, to date these penalties have not been used on respondents who have failed to report. The BOPS employs rigorous follow-up procedures to ensure the timely receipt of the data of the enterprises through reminders, phone calls, and follow-up visits. Offers of assistance are also provided, and if desirable and practical, an officer of the BOPS will visit the enterprise to assist in completing the form.

0.2 Resources

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

The staff resources of the BOPS are adequate, comprising four professional staff supported by six statistical assistants in charge of data input. All staff are equipped with appropriate hardware and software adequate for their daily work and tasks. The level of expertise of the professional staff in methodology needs significant improvement, as only one staff member has received training in BOP methodology. In addition, computer support is not adequate because of lack of expertise for *Cheetah*, the software used in BOPS.

0.2.2 Measures to ensure efficient use of resources are implemented.

Priorities are set through the development of annual work programs and a strategic medium term framework. Cost effectiveness measures include quarterly reviews of work programs. Also, the mission statement of the BoB stipulates the Bank will manage its affairs in an efficient and cost-effective manner. For instance, cost-effectiveness is observed when trying

to improve the response rates of surveys through follow-up visits. Another measure is the updating of the list of enterprises, which is done annually. No program exist to compare the resource usage of the BOP compilation system with other statistical systems, but importance is attached to conducting bilateral exercises, which was documented as an objective. There are training programs and periodic reviews of work procedures.

0.3 Quality awareness

0.3.1 Processes are in place to focus on quality.

The BOPS is sensitive to the quality as data are continuously cross-checked with data providers and other data sets, and scrutinized before being published. Survey forms are designed to enable the BOPS to ensure the accuracy of the data. The mission mandate also ensures that good methodologies are underlying the compilation of data.

0.3.2 Processes are in place to monitor the quality of the collection, processing, and dissemination of statistics.

There is no body distinct from the BOPS that provides guidance on the quality of the BOP statistics and on strategies for improving data production. However, after BOP data have been compiled, data go to the management for review. After the data have been published, phone calls and comments by users received by the BOPS serve as a vehicle to monitor the quality of the data. No records are made of calls received, but BOPS is guided by users' responses.

0.3.3 Processes are in place to deal with quality considerations, including trade-offs within quality, and to guide planning for existing and emerging needs.

There is recognition that there is a trade-off between the timeliness and the accuracy of the data especially since some of the data sources are not provided on a timely basis. To this end, the users are informed that data are provisional and based on partial information. Improvement of data quality is taken into account in planning the forward work program.

1. Integrity

1.1 Professionalism

1.1.1 Statistics are compiled on an impartial basis.

The statistics are compiled on an impartial basis because of the independence and professionalism of staff, which enables staff to use adequate methodologies and apply appropriate statistical tools to manage compilation systems. Even though some staff are in need of additional training, the head of the BOPS has adequate expertise to ensure an acceptable standard. Staff members are also encouraged to present seminars or share

information on the work they have done. In response to invitations, staff are sent out for training. However, there is no requirement to pursue further training, but request for training is supported by financial aid. Finally, research and analysis for publication are subject to internal review, as there is a Research Bulletin Committee that scrutinizes papers before publication.

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

The BoB is completely independent in the area of BOP compilation, and choices of sources and methods are predominantly based on statistical considerations.

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

The BOPS does not directly engage in public debate on erroneous interpretation and misuse of statistics but receives feedback by phone or through the Board Secretariat. Through this Secretariat, responses are provided when such feedback is received. Responses can be channeled through the Secretariat when instances of erroneous interpretation or misuse of statistics are noted in the media.

1.2 Transparency

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

The terms and conditions under which statistics are collected are governed by the Statistics Act and by the Bank of Botswana Act, which are publicly available. Both laws provide for the confidentiality of the information provided by respondents as spelled out in Article 9 of the Statistics Act and the secrecy provision of Section 19 of the Bank of Botswana Act, 1996. The obligation to report data and the secrecy provisions are also spelled out in the survey forms used by the BoB.

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

The MFDP has access to the preliminary annual BOP statistics under embargo in January, pending its public release by the Minister of Finance and Development Planning on the occasion of the Budget Speech presentation in the National Assembly in February. In addition, data are published in the MFDP's *Annual Economic Report*, which is published prior to the publication of the BoB's *Annual Report*. However the prerelease of data is not publicly identified.

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

The BoB's publications are clearly identified as products of the BoB by name and by logo.

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

Users of statistics are not made aware in advance of major changes in methodology, source data, and statistical techniques. Users are alerted at the time the changes are made.

1.3 Ethical standards

1.3.1 Guidelines for staff behavior are in place and are well-known to the staff.

Guidelines are in place regarding conflict of interest, secrecy requirements on information known to staff, and guards against misuse and misrepresentation of statistics. Section 18 of the Bank of Botswana Act deals specifically with conflicts of interest of its Board members and its employees. Section 19 requires an oath or declaration of secrecy on information related to the affairs of the BoB or any other bank, or financial institutions from all BoB personnel. Management is vigilant in following the guidelines. New staff are made aware of the guidelines when they join the organization since it forms part of the conditions of service. Staff are reminded periodically of the guidelines.

2. Methodological soundness

2.1 Concepts and definitions

2.1.1 The overall structure in terms of concepts and definitions follows internationally accepted standards, guidelines, or good practices.

BOP statistics are compiled broadly in accordance with the guidelines set out in the fifth edition of the IMF's *Balance of Payments Manual (BPM5)*. According to these guidelines, the BOP include the current account comprising goods, services, income, and current transfers; the capital account comprising capital transfers and the acquisition/disposal of nonproduced, nonfinancial assets; and the financial account comprising direct investment, portfolio investment, other investment, and reserve assets. A net errors and omissions item reflects the extent to which transactions are not recorded in the BOP.

2.2 Scope

2.2.1 The scope is broadly consistent with internationally accepted standards, guidelines, or good practices.

Botswana's economic territory consists of the geographic territory administered by the government of Botswana and no transactions between Botswana residents and nonresidents are excluded from the BOP. Botswana's BOP statistics define resident institutional units in conformity with *BPM5*'s concepts of economic territory, residence, and center of economic interest. However, there are some differences in the definition of residents used in the BOP and those in the monetary accounts. Because commercial banks define nonresidents by nationality, some transactions in the BOP accounts may not coincide with transactions of nonresidents measured in the balance sheet accounts of the commercial banks as changes in deposit liabilities to nonresidents. Similarly, although the statistical significance is small, transactions between residents earned on freight on imports are included in the transportation account, and earnings of local staff are misclassified since these transactions cannot be identified separately.

2.3 Classification/sectorization

2.3.1 Classification/ sectorization systems used are broadly consistent with internationally accepted standards, guidelines, or good practices.

The classification/sectorization system in Botswana's BOP presentation is broadly in accordance with the guidelines according to *BPM5*. The classification system comprises the current account including the goods, services, income, and current transfers account; the capital account; and the financial account including the direct investment, portfolio investment, other investments, and the reserve assets account. Four sectors are clearly identified, namely the monetary authorities comprising the BoB; the government sector comprising all ministries; the banks comprising all commercial banks; and other sectors comprising nonbank financial institutions, enterprises, and individuals. An exception to the guidelines for classification however, is the inclusion of the realized capital gains of the disposal of reserve assets in the income account. According to *BPM5* realized capital gains should be classified in the financial account in the account to which these gains are related.

Goods: In accordance with *BPM5* recommendations, the goods account include goods procured in ports by carriers, such as supply of fuels, spares etc., and repair on goods.

Services: This account includes transportation of goods and passengers, travel, and other services. The latter includes communications, education services, construction, insurance, consultancy services, and government services. The transportation account includes in freight on imports earnings attributable to resident carriers since an assumption is made that all freight in imports is paid to foreign carriers. However, the amounts are believed to be small (less than 0.5 percent).

Income: The main components of compensation of employees, direct investment income, and other investment income are identified separately. In addition, the reinvestment of earnings in the direct investment income account is also identified. In the account for compensation of employees, income paid to locally recruited staff by embassies and international

organizations is not included since no attempt is made to estimate this item. As noted earlier, the income account includes the realized capital gains on the disposal of reserve assets.

Current transfers: The main components in this account are transactions with the Southern African Customs Union (SACU), withholding tax and cash grants received by the government, contributions to international organizations, pensions paid abroad, workers' remittances, and other transfers. Transactions with SACU comprise the amounts of duty paid on imports to Botswana during the period, no matter where that duty was collected, and the amounts due to be paid to the Botswana government by the South African revenue services, in respect to imports during the same period.

Capital transfers: The main components in this account are cash grants made to the government for development expenditure and amounts pertaining to persons moving in and out of Botswana, captured in the International Transactions Reporting System (ITRS).

Financial account: The definition for direct investment, including the treatment of reverse investment or cross participation, conforms to the recommendations of *BPM5*. For portfolio investment, data may include unrealized capital gains because changes are estimated as differences in stocks and not always is sufficient information available to exclude these unrealized capital gains.

Reserves: Reserve assets include Special Drawing Rights, Reserve Position in the Fund, and foreign exchange assets in the form of currency, deposits, and securities. Botswana does not hold monetary gold as reserve assets.

2.4 Basis for recording

2.4.1 Market prices are used to value flows and stocks.

The change of ownership at market prices as specified in *BPM5* is the principle at which transactions are recorded in Botswana's BOP. For data sources available in foreign currencies, conversions into the local currency are in accordance with *BPM5* guidelines.

2.4.2 Recording is done on an accrual basis.

The BOP is compiled on an accrual basis. Application of the accrual principle implies that various adjustments to account for the timing differences are made to ensure a uniform recording of transactions. Deviations from accrual accounting are clearly specified.

2.4.3 Grossing/netting procedures are broadly consistent with internationally accepted standards, guidelines, or good practices.

The recording of current, capital, and financial account transactions follows guidelines of the *BPM5*. Current account items, including insurance, are recorded on a gross basis while

financial items are recorded on a net basis, separately for assets and liabilities. In the ITRS system, netting of transactions do not occur. However, even if netting does occur, its significance would be negligible, as the information from the ITRS is supplementary.

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.

A comprehensive data collection system, comprising a wide variety of sources, forms the basis for the compilation of BOP statistics. The principal sources are as follows:

- The CSO, providing information on trade statistics and tourism statistics pertaining to the arrivals and departures of nonresidents.
- The MFDP, providing monthly reports on the international cash transactions passing through the Government's accounting system and quarterly reports on the activities of insurance companies, pension funds, and other collective investment funds.
- The BOPS, providing annual and quarterly surveys of business enterprises (including parastatals) to collect details of the enterprises' foreign assets and liabilities, and income earned or paid on those assets and liabilities. The annual survey is sent to all known enterprises with foreign assets and liabilities (about 450 enterprises) on a calendar year basis. Two forms are used: a detailed form is used for enterprises with large foreign assets and liabilities, and an abridged form is used for other enterprises. In the quarterly survey, around 40 of the most significant enterprises from the annual survey are approached with a summary form asking for aggregated data with a minimum of detail. Data from the survey questionnaires are entered into a purpose-built database system called *Cheetah*. Its principle features are as follows: (a) the maintenance of a list of respondents; (b) design of collection form templates for data entry; (c) specification of data integrity tests; and (d) the aggregation and production of reports. As the population of the survey is not regarded as fixed because new enterprises with international transactions are being set up and existing enterprises may start having international transactions, continuous efforts are made to improve the coverage. The sources to identify new enterprises include the press, the ITRS, and new company registrations. The response for the annual survey is around 50 percent and around 90 percent for the quarterly survey. The high response rate of the quarterly survey is explained by the fact that only the largest enterprises are covered. Even though the survey-based approach is run in parallel with the ITRS, possibilities to improve the quality of the data through cross-checking are not utilized.
- The transport survey is an annual survey aimed at obtaining details from enterprises providing or receiving transportation services to or from nonresidents. There are five

forms covering foreign and resident operators, and modes of transportation, such as road transport, air transport, and Botswana Railways.

- The commercial banks, providing information on foreign exchange transactions. Even though the foreign exchange controls have been lifted, the BoB has retained the ITRS in order to monitor foreign exchange transactions for statistical purposes. However, the ITRS system is not considered to be reliable and for this reason, data from this source are only used for the “other services account” in the services account.

The sources of data per data category are as follows:

Goods: The source of information for goods exports of Botswana’s principal exports, comprising diamonds, copper, nickel, soda ash, and meat, are monthly returns collected by the BoB directly from enterprises. For other commodities, other than those reported by the principal exporters, monthly data on merchandise exports compiled by the CSO are used. The source of data for goods imports are the monthly merchandise import data, compiled by the CSO. Merchandise imports are compiled by the CSO on a c.i.f. basis and on a f.o.b. basis, and include customs duties and excise paid on those imports. Data exports and imports from these sources are supplemented with data derived from the transportation surveys and the ITRS on expenditures of carriers and repairs.

Transportation: The source of information for transportation services is the annual transportation survey supplemented with information provided from the ITRS, which is available on a monthly basis. In the transportation survey, different forms are used to reflect the different modes of transportation.

Travel: The sources of data for travel receipts are the tourism statistics, compiled by the CSO, combined with estimates for an average daily expenditure and average length of stay of nonresidents visiting Botswana. These estimates are based on a visitor survey conducted in June 1998 on behalf of the Department of Tourism. Since migration statistics do not include citizens entering or leaving Botswana, the estimation of travel payments is based on the identification of groups of citizens traveling abroad, which include students and persons undergoing medical treatment, officials, business men, tourists, diplomats and their dependents, and people working abroad on a short-term basis. The main sources for estimating travel expenditures abroad are the ITRS, official records, and The Employment Bureau for Africa (TEBA) for the estimation of living expenditures of residents working abroad on a short-term basis.

Other services: The source of data is the ITRS, supplemented with data derived from surveys and official records.

Compensation of employees: The source of data for the compensation of employees receipts is TEBA, which provides details on the number of persons employed, average wages paid, and amounts remitted to Botswana or saved in the TEBA Savings Fund. At present, no

attempt is made to estimate the income paid to locally recruited staff working at embassies and international organizations located in Botswana. Compensation of employees payments is based on an historical estimate increased each year by the growth in GDP.

Investment income: The source of data for direct and portfolio investment income, as well as interest on nonequity assets and liabilities of unrelated enterprises, is the BOP survey of enterprises. The source of data on other investment income—mainly interest receipts on reserve assets and interest payments on government borrowings—are official records. The interest receipts on reserve assets include realized capital gains on disposal of assets.

Current transfers: The sources of data are official records of BoB for transactions with the SACU, and CFU of MFDP for data on cash grants provided to the Botswana government, contributions to international organizations, and pensions paid abroad. The source of the data for the receipt of worker's remittances is the ITRS, while payments of workers' remittances are estimated on the basis of a historical pattern expanded by nominal growth in GDP.

Capital transfers: The sources of the data are the CFU of the MFDP, comprising cash grants for development expenditure, and the ITRS, comprising migrants transfers.

Direct investment: The source of the data on inward and outward direct investment is the BOPS's annual and quarterly sample survey of enterprises. The information collected includes reinvested earnings.

Portfolio investment: The sources of data for inward portfolio investment flows are monthly reports from the Botswana Stock Exchange (BSE), supplemented with data on portfolio investment derived from the annual BOP survey of enterprises. For outward portfolio investment flows, these two sources of data are supplemented with data on assets held offshore by pension funds and other fund managers, collected by the Registrar of Insurance and Pension Funds on a quarterly basis.

Other investment: The sources of data include the CFU of the MFDP for transactions in government debt, the BOP survey for transactions in foreign assets and liabilities not included in direct and portfolio investment, and records of BOPS, covering financial transactions with SACU. Changes in cash held by pension funds, unit trusts, and other forms of collective investment is also included here.

Reserve assets: The source of the data is the Finance Department of the BoB.

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

For principal exports, data are reported directly from the enterprises concerned. These data represent proceeds of export goods sold abroad and are therefore, closer to the basis for BOP recording of change of ownership and at transaction value. The source for other exports are

the trade returns. No estimates are prepared for exports not included in the customs returns. Merchandise imports recorded on a c.i.f. basis are converted to an f.o.b. basis. In addition, custom duties and excise taxes are excluded. The BOPS is aware of the differences in practices used in compiling source data for the BOP.

3.1.3 Source data are timely.

Enterprises participating in the surveys are aware of the need for timely reporting as the deadlines to submit their responses are specified. However, not in all cases do they comply. A major source of delay is the provision of merchandise trade data. While these data are intended to be available after four months, the current lag is approximately 12 months. Estimation methods are therefore used for compiling the merchandise trade component of the preliminary BOP.

3.2 Statistical techniques

3.2.1 Data compilation employs sound statistical techniques

Data management procedures have been set up to minimize processing errors. When the questionnaires are received, survey responses are scanned for reasonableness and internal consistency. Opening levels are compared with the equivalent closing levels reported in the previous period. The classification of levels and transactions by type of investment and by country are checked carefully. Where necessary, errors, inconsistencies, and apparent errors are followed up with the respondent. With regard to banking sector assets and liabilities, the BOPS ensures the accuracy of data by cross-checking BOP returns with the monthly and quarterly returns submitted by BoB's Monetary Statistics Section. Data are generally stored on paper or on computer-readable media (source documents), and a series of linked data storages are used to store Botswana's BOP data. The working files are Excel spreadsheets that are available to staff that need to work on them. These working files, together with the source documents, are the basis for producing account summaries for parts of the BOP, such as the goods account, services account, etc. These summaries for parts of the BOP are the basis for constructing all the standard components of the BOP.

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

For goods imports, adjustments are made to imports recorded on a c.i.f. basis in order to convert these imports to an f.o.b. basis by using an adjustment factor of 8.5 percent of the imports c.i.f. value. It is assumed that all freight on imports is paid to foreign carriers; although in practice, a small part (less than 0.5 percent) of these earnings is attributable to resident carriers. Further adjustments are made to exclude the customs and excise duties levied on goods imports, representing transactions between residents since these duties are included in the trade statistics. Some estimation methods for freight payments on imports and travel need to be updated. However, Botswana's estimation methods for the c.i.f./f.o.b. ratio

and the travel receipts need to be updated. Finally, gaps in the survey caused by enterprises not responding are ameliorated by carrying the data forward.

3.3 Assessment and validation of source data

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

Verification of data pertain to consistency checks within the survey form, ensuring the quality and reliability of the information provided and further enhanced by linking the data at subsequent levels. Accuracy is also promoted by ensuring that stock reported for the beginning of the period is equal to stocks reported at the end of the period.

3.4 Assessment and validation of intermediate data and statistical outputs

3.4.1 Main intermediate data are validated against other information where applicable.

Data on travel related transactions are analyzed in relation to information on the number of international travelers leaving or entering Botswana. The existence of the surveys and the ITRS provides a unique possibility to improve the quality of the data. However, this possibility to enhance data is currently not explored.

3.4.2 Statistical discrepancies in intermediate data are assessed and investigated.

Verification procedures also involve the reconciliation of flow data with stock data not only in the enterprise survey but also for external debt. The compilation system entails built-in checks in support of the quantitative analysis of the data.

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

A bilateral comparison/reconciliation of the financial account was conducted with data of South Africa in 2001. Large differences were found in the data, especially in the portfolio investment data. In this connection, methodologies and tables on foreign assets and liabilities, prepared for this exercise, were compared. The net errors and omissions item is kept under review, and if necessary, data are scrutinized.

3.5 Revision studies

3.5.1 Studies and analyses of revisions are carried out routinely and used to inform statistical processes. (see also 4.4.3)

Occasionally, data revisions are assessed to investigate the reasons for the revisions, and the direction and magnitude of revisions. The results of this analysis are reflected in the changes made in the compilation procedures for data for the subsequent periods.

4. Serviceability

4.1 Relevance

4.1.1 The relevance and practical utility of existing statistics in meeting users' needs are monitored.

The BOP data compiled by the BOPS is serving the needs of the user community since it does receive enquiries about its data, indicating that its data are being used. An established process of consultation with a user group that includes representatives from the private sector, the government sector, and other users does not exist. However, the BoB participates in international statistical meetings and seminars once in a while, when it gets invited.

4.2 Timeliness and periodicity

4.2.1 Timeliness follows dissemination standards.

Annual BOP data are disseminated within two months after the end of the reference period, thereby meeting the timeliness requirements of the GDDS.

4.2.2 Periodicity follows dissemination standards

Botswana compiles quarterly and annual BOP data in pula, thereby exceeding the periodicity requirements of the GDDS. At this time however, quarterly BOP data are not published because the quarterly survey is still considered to be in its trial phase.

4.3 Consistency

4.3.1 Statistics are consistent within the dataset.

The concepts, definitions, and classifications for developing quarterly BOP data are the same as those for the annual data, as it is the intention that quarterly data will add up to the annual data. The net errors and omissions as an indicator of consistency has not been large and has tended to be negative over the long period.

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

Notes are introduced to explain the breaks in the data series and these notes are maintained for as long as necessary. Occasionally, historical series incorporating changes in methodology or statistical techniques are reconstructed. Major changes in methodology are explained at the

time of the publication of data in detailed notes. Any unusual changes in economic trends are explained in notes or analytical texts.

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

The BOP merchandise trade data are not consistent with the merchandise trade and national accounts because the BOP is compiled on a calendar year basis, while the national accounts are compiled on an end of June basis. The monetary and financial statistics, as well as the external debt, are reconcilable because the data sources are the same. The BOP data are also reconcilable with the international investment position (IIP) statistics since the survey data provides for a reconciliation between the flow and stock data.

4.4 Revision policy and practice

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

New source data are incorporated as soon as they become available, and for this reason, data are revised as and when new data are received, but this policy is not stated publicly. Revisions due to methodology changes are explained. Minor changes that occur are not specifically identified, as the annual data are treated as preliminary, as deemed necessary. Adequate documentation of revisions is included in the publication of the statistical series.

4.4.2 Preliminary data are clearly identified.

A footnote to the BOP table, published in the BoB's monthly *Botswana Financial Statistics* clearly indicates that the estimates are preliminary. The revised data are disseminated in the same way, at the same level of detail as the data being revised. Users are informed about the source of the data, and that data for the most recent period is subject to revisions. However, there are no markings indicating which periods have been revised.

4.4.3 Studies and analyses of revisions are made public. (See also 3.5.1)

Studies and analysis of revisions are not made public. However, as noted earlier, revisions—as a result of methodological changes or changes in statistical tools—are explained at the time of data publication. On occasion, the nature of the revisions are investigated, and data sources and compilation procedures are reviewed.

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).

In the monthly *Botswana Financial Statistics (BFS)*, the BOP data are presented in a way that facilitates a proper and meaningful comparison of data over a long period of time.

Information is provided for all areas in the current and financial account of the BOP, such as the goods account, the services, income, and current transfers and capital account, the direct investment, changes in portfolio investment, other investments, and the reserves account. The analytical presentation of data is broadly in accordance with the methodology recommended in *BPM5*. However, the presentation of the financial account lacks clarity primarily because no distinction is made between foreign direct investment in Botswana and abroad, portfolio investment assets and liabilities, and changes in other investment foreign assets and liabilities. In addition, no details on arrears are published.

In *BFS*, the BOP is not accompanied by an in-depth analysis of developments during the period under review. This analysis is only provided in the BoB's *Annual Report*. Charts and tables that would facilitate analysis are prepared for the management of the BoB but not published.

5.1.2 Dissemination media and formats are adequate.

The dissemination formats are adequate, except for the press release. In this publication, the BOP is only mentioned in passing. The BOP data are released to all interested parties in the *BFS* and the *Annual Report* published by the BoB. In addition, both publications are also available in the BoB's Internet website (www.bankofbotswana.bw). BOP data are also published in the *Statistical Bulletin* published by the CSO.

5.1.3 Statistics are released on a preannounced schedule.

Statistics are not released on a preannounced schedule.

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

The data are released simultaneously to all interested parties by publishing the *BFS* and the *Annual Report*. In general, if data are ready for publication in the *BFS*, it will be made available to the public on request.

5.1.5 Nonpublished (but nonconfidential) subaggregates are made available upon request.

In addition to the BOP data published in the BoB's publications, special request for data are met. These request come mostly from other government agencies and rarely from other users. No fees are charged for such requests. The availability of nonpublished statistics and the terms and conditions on which they are made available, is not publicized.

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 internationally accepted standards, guidelines, or good practices are annotated.

BOP metadata with adequate information about what data mean and about the methodology used to collect and process them are not provided to users. Explanations are only provided upon the user's request. Methodological information on Botswana's BOP is available in the IMF's *Balance of Payments Statistics Yearbook*.

5.2.2 Levels of detail are adapted to the needs of the intended audience.

A comprehensive sources and methods document is available internally to BoB to inform analysts and other users of BOP statistics. However, this document is not available on request and needs to be edited to serve the needs of different users.

5.3 Assistance to users

5.3.1 Contact person for each subject field is publicized.

An address for the provision of additional nonconfidential information is provided in the *BFS* for monetary and banking statistics, but this could be broadened to include BOP data as well.

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

A listing of publications is provided in the *BFS*. The prices of the statistical products are disclosed and instructions are provided for users to place orders.

Table 1.6 Botswana—Data Quality Assessment Framework: Summary Presentation of Results for Balance of Payments
(Compiling agency: Bank of Botswana)

Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Not Observed; SDDS = Complies with SDDS Criteria

Element	NA	Assessment				Comments on Assessment	Plans for Improvements and Target Dates
		O	LO	LNO	NO		
0. Prerequisites of quality							
0.1 Legal and institutional environment			X			Legal framework is inadequate because the BoB is not designated as the compiling agency and it is not specified that enterprises are required to provide information.	
0.2 Resources			X			The need for staff training is significant.	
0.3 Quality awareness		X					
1. Integrity							
1.1 Professionalism		X					
1.2 Transparency			X			Data are prereleased to the MFDP, but this is not publicly identified. Information about major changes are given at time of publication only.	
1.3 Ethical standards		X					
2. Methodological soundness							
2.1 Concepts and definitions		X					
2.2 Scope			X			Some resident transactions are included.	
2.3 Classification/sectorization			X			Realized gains on reserves is misclassified.	
2.4 Basis for recording		X					

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Element	NA	Assessment				Comments on Assessment	Plans for Improvements and Target Dates
		O	LO	LNO	NO		
3. Accuracy and Reliability							
3.1 Source data							
			X			Custom returns, the recommended source for merchandise trade statistics, is not used for exports. Merchandise trade statistics for imports derived from customs returns include customs and excise duties and are on a c.i.f. basis. Trade data are available only after significant delays. Source data for services, income, transfers, and the financial accounts are the ITRS, surveys, and administrative records.	Short-term plan includes improvement in data collection with attention to enhance accuracy of data in the financial account, developing data on private sector external debt, and improving quality of survey data. It also includes developing quarterly IIP and comprehensive quarterly surveys.
3.2 Statistical techniques			X			Some estimation methods need to be updated for freight payments on imports and travel.	
3.3 Assessment and validations of source data			X			Results of assessments are not used to guide planning.	
3.4 Assessment and validation of intermediate data and statistical outputs			X			Possibilities to enhance data through cross-checking data from surveys with ITRS data are not utilized.	
3.5 Revision studies			X			Data revisions are assessed occasionally.	

Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Not Observed; SDDS = Complies with SDDS Criteria

Table 1.6 Botswana—Data Quality Assessment Framework: Summary Presentation of Results for Balance of Payments
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Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Not Observed; SDDS = Complies with SDDS Criteria							
Element	NA	Assessment				Comments on Assessment	Plans for Improvements and Target Dates
		O	LO	LNO	NO		
4. Serviceability							
4.1 Relevance							
			X			Established processes of consultation with users do not exist.	
4.2 Timeliness and periodicity		X					BoB is currently developing quarterly balance of payments data.
4.3 Consistency			X			Data are reconcilable with the monetary statistics and government finance statistics but not reconcilable with the national account.	Short-term plan includes harmonization of data formats of monetary and balance of payments data with a view to develop flow of fund statistics and reconciliation of balance of payments data and national accounts data.
4.4 Revision policy and practice			X			Revisions are incorporated when new data sources become available, but this policy is not publicly known. Studies and analysis of revisions are not made public.	

Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Not Observed; SDDS = Complies with SDDS Criteria

Table 1.6 Botswana—Data Quality Assessment Framework: Summary Presentation of Results for Balance of Payments
(Compiling agency: Bank of Botswana)

Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Not Observed; SDDS = Complies with SDDS Criteria

Element		NA	Assessment				Comments on Assessment	Plans for Improvements and Target Dates
			O	LO	LNO	NO		
5. Accessibility								
5.1 Data accessibility				X			Clarity of presentation of data in the financial account needs to be improved. Statistics are not released on a preannounced schedule. Prerelease of data occurs upon request.	
5.2 Metadata accessibility					X		Documentation on concepts, scope, classifications, basis of recording, data sources, and statistical techniques is not published. Some of the information is at the technical level and not useful to the public. No general purpose document, e.g., brochure, has been prepared to inform users about the balance of payments and other external sectors statistics.	
5.3 Assistance to users				X			Contact person is not publicized, but in an informal manner the BoB can be contacted by phone or in writing.	

Table 2.1 Botswana—Current Data Dissemination Practices vis-à-vis the GDDS Data Dimension					
Coverage		Periodicity		Timeliness	
GDDS	Current Practice	GDDS	Current Practice	GDDS	Current Practice
Real Sector					
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.	Gross Domestic Product, Gross National Income, Gross Disposable Income, Capital Formation, and Net Lending/ Borrowing. Sectoral accounts	Annual	Annual Annual	10–14 months	8–12 months 5 years ³⁰
Data Categories and Indicators					
National Accounts Aggregates					
GDP (nominal and real)	GDP (nominal and real)	Annual (quarterly encouraged)	Annual ³¹	6–9 months	No later than 8 months
Gross national income, capital formation, saving	Gross national income Capital formation	Annual	Annual	6–9 months	12 months 8 months
Production Index/Indices					
Manufacturing or industrial indices	Not compiled	Monthly	NA	6 weeks	NA
Primary commodity, agricultural, or other indices, as relevant	Not compiled	As relevant	NA	3 months for all indices	NA

³⁰ Comprehensive national accounts for 1994/1995 were disseminated in March 2000.

³¹ Quarterly estimates for the period 1993/94–1999/2000 (Q2) and 2000/01 (Q1 and Q2) were released in February and October 2001, respectively. The CSO's goal is to reduce timeliness to within three months after the end of the reference quarter by mid-2002.

Table 2.1 Botswana—Current Data Dissemination Practices vis-à-vis the GDDS Data Dimension					
Coverage		Periodicity		Timeliness	
GDDS	Current Practice	GDDS	Current Practice	GDDS	Current Practice
Real Sector					
Data Categories and Indicators					
Price Indices					
Consumer price index	Compiled on the basis of a basket of goods and services derived from data collected in the 1993/94 Household Income and Expenditure Survey. The computation broadly follows international standards.	Monthly	Monthly	1 or 2 months	1–2 weeks
Producer price index	<i>Only a single index covering all manufacturing industries is published due to limitations in data collection. The index is only available from September 1997, which is its base period.</i>	Monthly	Every third month	1 or 2 months	7–8 weeks
Labor Market Indicators					
Employment		Annual	Biannual	6–9 months	5 months
Unemployment	Data collected from household surveys, which are principally designed for other purposes, e.g., incidence of AIDS. Therefore, the timing and sample design can change from year to year. This means that the unemployment data cannot be viewed as a reliable time series	Annual	Annual from 1998	6–9 months	Disseminated with rest of survey results within 6 months of the survey period.
Wages/earnings (all sectors)		Annual	Biannual	6–9 months	6 months

Table 2.1 Botswana—Current Data Dissemination Practices vis-à-vis the GDDS Data Dimension					
Coverage		Periodicity		Timeliness	
GDDS	Current Practice	GDDS	Current Practice	GDDS	Current Practice
Fiscal Sector					
Comprehensive Framework					
Central Government Operations					
Producing and disseminating comprehensive data on transactions and debt, 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) with breakdowns (debt holder, instrument, currency), as relevant.	Production and dissemination of data are comprehensive and emphasize (1) coverage of all central government units; (2) use of appropriate analytical framework; and (3) development of a full range of detailed classification with breakdowns.	Annual	Annual	6–9 months	11–12 months by the MFDP. Consolidated cash flow statement for central government is published by the BoB 4–5 months after reference year.
<i>General government or public sector operations data strongly encouraged where sub national levels of government or public enterprise operations are of analytical or policy importance.</i>	<i>Data on general government sector are not disseminated by the MFDP or the CSO, but consolidation process to compile a general government data is in place.</i>	<i>Annual</i>	<i>NA</i>	<i>6–9 months</i>	<i>NA</i>
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 by the 1986 GFS Manual and disseminated by the MFDP.	Annual	Annual	6–9 months	11–12 months by the MFDP
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 of the 1986 GFS Manual, with all relevant breakdowns.	Quarterly	Quarterly (Monthly data available for the MFDP's and the BoB's use)	1 quarter	By the MFDP: 11–12 months (overall deficit/surplus announced by MFDP). By the BoB: 1 quarter (first 3 quarters); 4–5 months (fourth quarter)

Table 2.1 Botswana—Current Data Dissemination Practices vis-à-vis the GDDS Data Dimension					
Coverage		Periodicity		Timeliness	
GDDS	Current Practice	GDDS	Current Practice	GDDS	Current Practice
Fiscal Sector					
Data Categories and Indicators					
Central Government Budgetary Aggregates					
<i>Interest payments</i>		<i>Quarterly</i>	<i>Quarterly (Monthly data available for the MFDP's and the BoB's use)</i>	<i>1 quarter</i>	<i>By the MFDP: 11–12 months (overall deficit surplus announced by MFDP). By the BoB: 1 quarter (first 3 quarters); 4–5 months (fourth quarter)</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 by 1986 GFS Manual and disseminated by the MFDP.	Annual (Quarterly encouraged)	Annual	1–2 quarters	11–12 months by the MFDP
<i>Government guaranteed debt</i>		<i>As relevant</i>	<i>Annual</i>	<i>3 months for all indices</i>	<i>11–12 months by the MFDP</i>
Financial Sector					
Comprehensive Framework					
Broad Money Survey or Depository Corporations 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 covers the BoB and the five commercial banks, which account for around 95 percent of the deposits and loans of the system. Two merchant banks, one building society, and one savings bank are not covered by the survey. The methodology for producing the monetary survey follows the Fund's <i>Monetary and Financial Statistics Manual (MFSM)</i> . Classification according to economic sector is adequate. Shortcomings in the classification of accounts of residents and nonresidents by the commercial banks.	Monthly	Monthly	2–3 months	3 months

Table 2.1 Botswana—Current Data Dissemination Practices vis-à-vis the GDDS Data Dimension					
Coverage		Periodicity		Timeliness	
GDDS	Current Practice	GDDS	Current Practice	GDDS	Current Practice
Financial Sector					
Data Categories and Indicators					
Broad Money and Credit Aggregates					
Net external position, domestic credit, broad or narrow money	Net foreign assets. Total foreign assets less total foreign liabilities of the BoB and commercial banks. Domestic credit. Net claims on government (central and other levels) plus claims on nonfinancial public enterprises, and claims on private sector. National definitions of money. M1: currency outside banks and demand deposits; M2: M1 plus call accounts with commercial banks, savings, notice, and time deposits; M3: M2 plus private deposits with the BoB and BoB's certificates; M4: M3 plus foreign currency accounts.	Monthly	Monthly	1–3 months	3 months
Central Bank Aggregates					
Reserve money	Currency outside banks, plus commercial banks' cash and deposits with the BoB.	Monthly	Monthly	1–3 months	3 months
Interest Rates					
Short and long-term government security rates, policy variable rate	The government does not issue securities. For monetary policy purposes, the BoB issues its own certificates (BoBCs) at a discount price.	Monthly	Monthly	Dissemination as part of a high-frequency (e.g. monthly) publication	3 months
Money or interbank market rates and a range of deposit and lending rates	<i>Passive rates in national and foreign currency: savings accounts, overnight deposits, short- and long-term fixed deposits.</i> <i>Active rates: the BoB lending rate to banks, central government's Public Debt Service Fund, commercial banks prime lending rates, mortgage loans, car loans.</i>	Monthly	Monthly	Dissemination as part of a high-frequency (e.g. monthly) publication	3 months
Stock Market					
Share price index, as relevant	Share index calculated for only domestic-listed shares	Monthly	Monthly	Dissemination as part of a high-frequency (e.g. monthly) publication	

Table 2.1 Botswana—Current Data Dissemination Practices vis-à-vis the GDDS Data Dimension					
Coverage		Periodicity		Timeliness	
GDDS	Current Practice	GDDS	Current Practice	GDDS	Current Practice
External Sector					
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.	Main aggregates and balancing items of the balance of payments, including imports and exports of goods and services, trade balance, income, transfers, current account balance, reserves and other financial transactions, and overall balance, with detailed components as relevant.	Annual	Annual	6–9 months	2 months
<i>International Investment Position</i>	<i>Main components of foreign financial assets and liabilities, including foreign direct investment in Botswana and abroad, portfolio investment foreign assets and liabilities, other foreign assets and liabilities, and reserves, with detailed components as relevant.</i>	<i>Annual</i>	<i>Annual</i>	<i>6–9 months</i>	<i>2 months</i>
Data Categories and Indicators					
Balance of Payments Aggregates					
Imports and exports of goods and services, current account balance, reserves, overall balance	Imports and exports of goods and services, current account balance, reserves, overall balance.	Annual (Quarterly encouraged)	Annual	6 months	2 month
Public and publicly guaranteed external debt outstanding (with maturity breakdown) ³²		Quarterly	Quarterly	1–2 quarters	3 months

³² 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 2.1 Botswana—Current Data Dissemination Practices vis-à-vis the GDDS Data Dimension					
Coverage		Periodicity		Timeliness	
GDDS	Current Practice	GDDS	Current Practice	GDDS	Current Practice
External Sector					
Data Categories and Indicators					
Balance of Payments Aggregates					
Public and publicly guaranteed debt service schedule	Public and publicly guaranteed debt service schedule	Twice yearly (with data for 4 quarters and 2 semesters ahead)	Quarterly	3–6 months	On request
<i>Private external debt not publicly guaranteed</i>		<i>Annual</i>	<i>Quarterly</i>	<i>6–9 months</i>	<i>Quarterly</i>
International Reserves					
Gross official reserves denominated in U.S. dollars		Monthly	Monthly	1–4 weeks	1 month
<i>Reserve related liabilities</i>		<i>Monthly</i>		<i>1–4 weeks</i>	
Merchandise Trade					
Total exports and total imports	Total exports and total imports	Monthly	Monthly	8 weeks–3 months	12 months
<i>Major commodity breakdowns with longer time lapse</i>		<i>Monthly</i>	<i>Monthly</i>	<i>8 weeks–3 months</i>	<i>12 months</i>
Exchange Rates					
Spot rates	Spot rates	Daily	Daily	Dissemination as part of a high-frequency (e.g., monthly) publication	Daily

Main Features of the General Data Dissemination System and the Special Data Dissemination Standard

This section contains highly condensed descriptions of the General Data Dissemination System (GDDS) and the Special Data Dissemination Standard (SDDS). More details on the GDDS and SDDS can be found on the IMF's Dissemination Standards Bulletin Board (DSBB) on the Internet at <http://dsbb.imf.org>.

GDDS

- *Data Coverage, Periodicity, and Timeliness:* Dissemination of reliable, comprehensive, and timely economic, financial, and sociodemographic 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 2.1).
- *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.
- *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.
- *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.
- *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.

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.

SDDS

Data dimension (coverage, periodicity, and timeliness)

- The dissemination of 18 data categories, including component detail, covering the four main sectors of the economy, with prescribed periodicity and timeliness.

Access dimension

- The dissemination of advance release calendars providing at least a one-quarter ahead notice of approximate release dates and at least a one-week ahead notice of the precise release dates.
- The simultaneous release of data to all users.

Integrity dimension

- The dissemination of the terms and conditions under which official statistics are produced and disseminated.
- The identification of internal government access to data before release.
- The identification of ministerial commentary on the occasion of statistical release.
- The provision of information about revision and advance notice of major changes in methodology.

Quality dimension

- The dissemination of documentation on statistical methodology and sources used in preparing statistics.
- Dissemination of component detail and/or additional data series that make possible cross-checks and checks of reasonableness.

SDDS subscribers are required to:

- Post descriptions of their data dissemination practices (metadata) on the IMF's DSBB. Summary methodologies, which describe data compilation practices in some detail are also disseminated on the DSBB.
- Maintain an Internet website, referred to as the National Summary Data Page (NSDP), which contains the actual data described in the metadata, and to which the DSBB is electronically linked.

At the March 29, 2000 meeting of the IMF's Executive Board, Directors approved the incorporation of a new SDDS data category on external debt. The transition period for implementing this data category expires in March 2003.

As a result of the IMF Executive Board's Third Review of the SDDS in March 2000, IMF staff began monitoring observance of the Standard through NSDPs maintained on the Internet. Monitoring commenced at the beginning of July 2000 and is limited to the coverage, periodicity, and timeliness of the data, and to the dissemination of advance release calendars.

**Data Quality Assessment Framework—Generic Framework
(July 2001 Vintage)**

Quality Dimensions	Elements	Indicators
Prerequisites of quality¹	<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 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 to encourage response.</p> <p>0.2.1 Staff, financial, and computing resources are commensurate with statistical 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.</p> <p>0.3.2 Processes are in place to monitor the quality of the collection, processing, and dissemination of statistics.</p> <p>0.3.3 Processes are in place to deal with quality considerations, including 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>Statistical policies and practices are guided by professional principles.</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 in place and are well known to the staff.</p>

**DATA QUALITY ASSESSMENT FRAMEWORK—GENERIC FRAMEWORK
(July 2001 Vintage)**

Quality Dimensions	Elements	Indicators
<p>2. Methodological soundness</p> <p><i>The methodological basis for the statistics follows internationally accepted standards, guidelines, or good practices.</i></p>	<p>2.1 Concepts and definitions – <i>Concepts and definitions used are in accord with internationally accepted statistical frameworks.</i></p> <p>2.2 Scope – <i>The scope is in accord with internationally accepted standards, guidelines, or good practices.</i></p> <p>2.3 Classification/sectorization – <i>Classification and sectorization systems are in accord with internationally accepted standards, guidelines, or good practices.</i></p> <p>2.4 Basis for recording – <i>Flows and stocks are valued and recorded according to internationally accepted standards, guidelines, or good practices.</i></p>	<p>2.1.1 The overall structure in terms of concepts and definitions follows internationally accepted standards, guidelines, or good practices: see dataset-specific framework.</p> <p>2.2.1 The scope is broadly consistent with internationally accepted standards, guidelines, or good practices: see dataset-specific framework.</p> <p>2.3.1 Classification/sectorization systems used are broadly consistent with internationally accepted standards, guidelines, or good 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 internationally accepted standards, guidelines, or good practices.</p>

**DATA QUALITY ASSESSMENT FRAMEWORK—GENERIC FRAMEWORK
(July 2001 Vintage)**

Quality Dimensions	Elements	Indicators
<p>3. Accuracy and reliability</p> <p><i>Source data and statistical techniques are sound and statistical outputs 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 to sound statistical procedures.</i></p> <p>3.3 Assessment and validation of source data—<i>Source data are regularly assessed and validated.</i></p> <p>3.4 Assessment and validation of intermediate data and statistical outputs.—<i>Intermediate results and statistical outputs are regularly assessed and validated.</i></p> <p>3.5 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 nonsampling error; the results of the assessments are monitored and made available to guide planning.</p> <p>3.4.1 Main intermediate data are validated against other information where applicable.</p> <p>3.4.2 Statistical discrepancies in intermediate data are assessed and investigated.</p> <p>3.4.3 Statistical discrepancies and other potential indicators of problems in statistical outputs are investigated.</p> <p>3.5.1 Studies and analyses of revisions are carried out routinely and used to inform statistical processes.</p>

**DATA QUALITY ASSESSMENT FRAMEWORK—GENERIC FRAMEWORK
(July 2001 Vintage)**

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 within the dataset, over time, and with major datasets.</i></p> <p>4.4 Revision policy and practice – <i>Data revisions follow a regular and publicized procedure.</i></p>	<p>4.1.1 The relevance and practical utility of existing statistics in meeting users' needs are monitored.</p> <p>4.2.1 Timeliness follows dissemination standards. 4.2.2 Periodicity follows dissemination standards</p> <p>4.3.1 Statistics are consistent within the dataset (c.g., accounting identities observed). 4.3.2 Statistics are consistent or reconcilable over a reasonable period of time. 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 made public.</p>

**DATA QUALITY ASSESSMENT FRAMEWORK—GENERIC FRAMEWORK
(July 2001 Vintage)**

Quality Dimensions	Elements	Indicators
5. Accessibility <i>Data and metadata are easily available and assistance to users is adequate.</i>	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> 5.2 Metadata accessibility – <i>Up-to-date and pertinent metadata are made available.</i> 5.3 Assistance to users – <i>Prompt and knowledgeable support service is available.</i>	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 the preannounced schedule. 5.1.4 Statistics are made available to all users at the same time. 5.1.5 Nonpublished (but nonconfidential) subaggregates are made available upon request. 5.2.1 Documentation on concepts, scope, classifications, basis of recording, data sources, and statistical techniques is available, and differences from internationally accepted standards, guidelines or good practices are annotated. 5.2.2 Levels of detail are adapted to the needs of the intended audience. 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.

¹ 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 mission's own assessment of the quality of Botswana's statistics, a survey was conducted among users of macroeconomic statistics. The survey asked users to evaluate 12 different aspects of national accounts, prices, labor market, fiscal, monetary, and BOP statistics. Out of 60 questionnaires sent, the mission received 43 responses, i.e., a response rate of 72 percent. Of the responses, almost one-third were submitted by public policy organizations. Responses are distributed into four levels of satisfaction and shown as a percentage of the total for each category of statistics in Table 3.1.

Users are in general, pleased with the institutional coverage; detail provided; frequency; and accessibility of the statistics; except for labor market statistics, which received a lower rating. Users showed a lower level of satisfaction in terms of clarity of the methodology used in preparing the statistics and in understanding the analytical frameworks. Users were almost equally divided between in agreement and neutral regarding the frequency and magnitude of the revisions. Notwithstanding these critical assessments, users considered Botswana's statistics to be far better than those of other African countries.

Out of 43 respondents, 24 users took the opportunity to provide some comments and suggestions on Botswana's statistics (see Table 3.2). Users asked that data be presented with more disaggregation and that the methodologies used in compiling statistics be better explained to the public. Some users questioned the accuracy of some statistics, and many of them commented negatively about timeliness, periodicity, and dissemination practices. The suggestions provided were in accordance with the comments, i.e., produce more disaggregated and more frequent statistics (e.g., for national accounts), disseminate them in a more timely manner, and make them more easily available to users via the Internet.

Table 3.1 Results of Botswana's Users' Survey

	Percentage of Users			
	Strongly agree	Agree	Neutral	Disagree
The institutional coverage of the data is sufficient				
National Accounts	8.8	70.6	17.6	2.9
Price statistics	11.8	64.7	17.6	5.9
Labor Market	--	50.0	40.6	9.4
Fiscal statistics	17.2	62.1	20.7	--
Monetary statistics	21.9	56.3	21.9	--
Balance of Payments	13.8	55.2	24.1	6.9
The level of detail provided is adequate				
National Accounts	9.1	54.5	24.2	12.1
Price statistics	12.5	62.5	18.8	6.3
Labor Market	3.2	38.7	41.9	16.1
Fiscal statistics	10.3	62.1	27.6	--
Monetary statistics	12.9	58.1	25.8	3.2
Balance of Payments	11.5	53.8	30.8	3.8
Frequency is satisfactory				
National Accounts	17.2	51.7	24.1	6.9
Price statistics	27.6	51.7	17.2	3.4
Labor Market	13.8	37.9	31.0	17.2
Fiscal statistics	7.7	61.5	23.1	7.7
Monetary statistics	28.6	50.0	21.4	--
Balance of Payments	20.8	37.5	41.7	--

Table 3.1 Results of Botswana's Users' Survey

	Percentage of Users			
	Strongly agree	Agree	Neutral	Disagree
Data are disseminated with the appropriate time lag after the end of the recording period				
National Accounts	6.5	38.7	48.4	6.5
Price statistics	20.0	33.3	40.0	6.7
Labor Market	3.3	33.3	53.3	10.0
Fiscal statistics	6.9	44.8	37.9	10.3
Monetary statistics	16.7	46.7	36.7	--
Balance of Payments	14.8	48.1	33.3	3.7
Methodological concepts used to compile the data are clearly defined				
National Accounts	3.1	31.3	50.0	15.6
Price statistics	6.5	32.3	41.9	19.4
Labor Market	3.6	28.6	53.6	14.3
Fiscal statistics	3.6	28.6	53.6	14.3
Monetary statistics	7.1	32.1	46.4	14.3
Balance of Payments	3.8	38.5	42.3	15.4
Analytical framework used is clear and easy to understand				
National Accounts	20.6	38.2	29.4	11.8
Price statistics	12.1	45.5	30.3	12.1
Labor Market	3.3	46.7	40.0	10.0
Fiscal statistics	12.9	41.9	35.5	9.7
Monetary statistics	12.1	39.4	36.4	12.1
Balance of Payments	10.7	42.9	32.1	14.3

Table 3.1 Results of Botswana's Users' Survey

	Percentage of Users			
	Strongly agree	Agree	Neutral	Disagree
The data are readily accessible				
National Accounts	21.9	43.8	28.1	6.3
Price statistics	19.4	38.7	35.5	6.5
Labor Market	17.2	41.4	31.0	10.3
Fiscal statistics	20.7	44.8	27.6	6.9
Monetary statistics	25.0	43.8	28.1	3.1
Balance of Payments	22.2	29.6	40.7	7.4
Information about the data (explanatory notes, etc.) are readily accessible				
National Accounts	16.1	41.9	38.7	3.2
Price statistics	12.5	46.9	31.3	9.4
Labor Market	12.9	38.7	38.7	9.7
Fiscal statistics	10.3	41.4	41.4	6.9
Monetary statistics	20.0	40.0	36.7	3.3
Balance of Payments	14.8	44.4	33.3	7.4
Support (numerical and methodological clarifications) from data providers are adequate				
National Accounts	3.1	40.6	53.1	3.1
Price statistics	3.2	38.7	51.6	6.5
Labor Market	3.2	41.9	48.4	6.5
Fiscal statistics	--	50.0	42.9	7.1
Monetary statistics	--	53.3	43.3	3.3
Balance of Payments	7.7	34.6	53.8	3.8

Table 3.1 Results of Botswana's Users' Survey

	Percentage of Users			
	Strongly agree	Agree	Neutral	Disagree
Frequency of revisions are acceptable				
National Accounts	3.2	48.4	48.4	--
Price statistics	3.2	41.9	51.6	3.2
Labor Market	3.2	38.7	48.4	9.7
Fiscal statistics	--	55.2	44.8	--
Monetary statistics	--	48.4	51.6	--
Balance of Payments	20.8	37.5	41.7	--
Magnitude of revisions are acceptable				
National Accounts	3.1	50.0	43.8	3.1
Price statistics	3.1	43.8	43.8	9.4
Labor Market	7.1	28.6	64.3	--
Fiscal statistics	3.3	53.3	40.0	3.3
Monetary statistics	6.5	51.6	41.9	--
Balance of Payments	7.4	48.1	44.4	--
Botswana's statistics are better than those for other African countries				
National Accounts	21.9	50.0	28.1	--
Price statistics	23.3	50.0	26.7	--
Labor Market	20.7	48.3	31.0	--
Fiscal statistics	24.1	48.3	27.6	--
Monetary statistics	29.0	48.4	22.6	--
Balance of Payments	29.6	48.1	22.2	--

Table 3.2 Botswana—Comments and Suggestions of Users' Survey

Comments Given by the Users	
<i>More disaggregation required</i>	National accounts (2)
	Labor participation by sector of employment (2)
	Trade statistics
<i>Methodological problems</i>	Need to explain methodology (5)
	Need to explain analytical framework
	Too many revision to the CPI (2)
	Breakdown of CPI
	Shortcomings in producer price index
	Need for a better coverage of labor market
	Reliability of labor market figures
	Direct and indirect taxes not adequately captured in national accounts
	Inconsistency in the treatment of custom union revenue between national accounts and balance of payments
<i>Greater periodicity requested</i>	Country of origin of imports
	National accounts (3)
	Price statistics
	Labor market statistics (6)
	Fiscal statistics
<i>Inadequate timeliness of publication</i>	Balance of payments
	National accounts (2)
	Labor market statistics (6)
	Fiscal statistics
<i>Other comments</i>	Monetary statistics (2)
	Need to provide feedback to survey respondents
	Need to simplify the prescription of statistics
	Information accessible largely in hard copy form

Table 3.2 Botswana—Comments and Suggestions of Users' Survey

Suggestions
Provide data with a greater level of disaggregation (6)
Statistics produced on a more frequent basis (4)
Shorter time lags in the dissemination of statistics (4)
Data availability on standard electronic files and on the Internet
Standardize definitions in trade statistics (2)
Better explanatory notes and comments (2)
Clearly define methodological concepts in national accounts
Improve reliability and consistency of data across different publications
Clearly specify sample size and standard errors
Explain technological terms in a form understandable for a layman
Explain purpose and implications of statistics
Expand the information provided by labor markets statistics
Incorporate a list of foreign investors in trade statistics
Simplify the presentation of statistics
Share the results with survey respondents
Compilation agencies should receive feedback from users

Number in parenthesis refers to the number of users providing similar views.