

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

This Report on the Observance of Standards and Codes on Data Module for **Morocco** was prepared by a staff team of the International Monetary Fund as background documentation for the periodic consultation with the member country. It is based on the information available at the time it was completed on **March 26, 2003**. The views expressed in this document are those of the staff team and do not necessarily reflect the views of the government of **Morocco** or the Executive Board of the IMF.

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

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

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ACRONYMS

<i>1984 Guide</i>	<i>Guide to Monetary and Banking Statistics published in International Financial Statistics (1984 Guide)</i>
<i>1968 SNA</i>	<i>System of National Accounts 1968</i>
<i>1993 SNA</i>	<i>System of National Accounts 1993</i>
BIS	Bank for International Settlements
<i>BPM5</i>	<i>Balance of Payments Manual, fifth edition</i>
BTP	Bâtiment et travaux publics [Construction and public works]
CIF	Cost, insurance, freight
CCF	Comité de Conjoncture Financière [Financial Situation Committee]
CEN	Caisse d'épargne nationale [National Savings Bank]
CGED	General Comptroller of Expenditure Commitments – MEFPT
CMR	Caisse marocaine de retraite [Moroccan Pension Fund]
CNIS	Conseil national d'informations statistiques [National Statistical Information Council]
CNOPS	Régime de santé des fonctionnaires [Health Insurance System for Public Employees]
CNSS	Caisse nationale de sécurité sociale [National Social Security Fund]
COCOES	Comité de Coordination des Études statistiques [Statistical Studies Coordination Committee]
COFOG	Classification of the Functions of Government
COICOP	Classification of Individual Consumption by Purpose
CPC	Central Product Classification
CPI	Consumer Price Index
CST	Special Treasury Accounts
DBCC	Department of Budget and Central Control (Bank Al-Maghrib)
DCEC	Department of Credit Institutions Control (Bank Al-Maghrib)
DE	Research Department (Bank Al-Maghrib)
DEM	Division of Monetary Research, DE (Bank Al-Maghrib)
DEPG	Directorate of Economic Policy
DEPP	Directorate of Public Establishments and Participations
DI	Computer Services Department (Bank Al-Maghrib)
DQAF	Data Quality Assessment Framework
DS	Directorate of Statistics
DSBB	Dissemination Standards Bulletin Board
DTFE	Directorate of the Treasury and External Financing
ECM	Household consumption and expenditure survey
ENV	Standard-of-living survey
EPA	Public Administrative Establishments
EPIC	Public Industrial and Commercial Establishments
ERE/TES	Source-use equilibrium, input-output table (Computerized module/tool for compiling the National Accounts)
FOB	Free on board
GDDS	General Data Dissemination System
GDP	Gross Domestic Product
GFCF	Gross Fixed Capital Formation
GFS	Government Finance Statistics
<i>GFSM 1986</i>	<i>A Manual on Government Financial Statistics 1986</i>
<i>GFSM 2001</i>	<i>Government Financial Statistics Manual 2001</i>

<i>GFSM</i>	<i>Government Financial Statistics Manual</i>
<i>GFSY 2001</i>	<i>Government Financial Statistics Yearbook 2001</i>
IAS 2000	International Accounting Standards
ICV	Cost of living index
ILO	International Labor Organization
IMF	International Monetary Fund
INAC	National Economic Analysis Institute
INSEA	National Statistics and Applied Economics Institute
INSEE	National Institution of Statistics and Economic Studies – France
ISIC	International Standard Classification (by industry) of all economic activities
ISO 9000	International Organization for Standardization
ISWGNA	Inter-Secretariat Working Group on the National Accounts
ITRS	International transactions reporting system
MEDSTAT	Euro-Mediterranean Statistical Cooperation Program
MEFPT	Ministère de l’Economie, des Finances, de la Privatisation et du Tourisme [Ministry of Economy, Finance, Privatization and Tourism]
<i>MFSM</i>	<i>Monetary and Financial Statistics Manual</i>
MICME	Ministry of Industry, Trade, Mining and Energy
MPEP	Ministère de la Prévision et du Plan [Ministry of Economic Forecasting and Planning]
MRA	Moroccan nationals residing abroad
NMAE	Nomenclature marocaine d’activités économiques [Moroccan Classification of Economic Activities]
NMP	Nomenclature marocaine des produits [Moroccan Products Classification]
NPISHs	Nonprofit Institutions Serving Households
OC	Office des Changes [Foreign Exchange Office]
ODC	Other depository corporations
ODAC	Organismes divers de l’administration centrale [Miscellaneous agencies of the central government]
OECD	Organization for Economic Co-operation and Development
OPCVM	Organismes de placement collectif en valeurs mobilières [finance companies]
PCEC	Plan comptable des établissements de crédit [Chart of accounts for credit institutions]
PI	Production Index
PPI	Producer Price Index
RCAR	Régime collectif des allocations de retraite [Pension Fund]
ROSC	Report on the Observance of Standards and Codes
SCP	Postal Checking Service
SDDS	Special Data Dissemination Standard
SDR	Special Drawing Rights (IMF)
SEGMA	Services de l’État gérés de manière autonome [government services run independently]
SNA	System of National Accounts
SPOT	Provisional statement of Treasury operations
STA	Statistics Department - IMF
TES	Tableau entrées-sorties [Input-output table]
TGR	Trésorerie générale du Royaume [General Treasury of the Kingdom]
TOFE	Tableau des Opérations Financières de l’État [Government Financial Transactions Table]
VAT	Value Added Tax

EXECUTIVE SUMMARY

This Report on the Observance of Standards and Codes (ROSC) data module provides a review of Morocco's data dissemination practices against the IMF's General Data Dissemination System (GDDS), complemented by an in-depth assessment of the quality of the national accounts, consumer price index, producer price index, government finance, monetary, and balance of payments statistics. The agencies that produce the statistics assessed in this report are the Ministry of Forecasting and Planning; the Ministry of Economy, Finance, Privatization, and Tourism (MEFPT); Bank Al-Maghrib; and the Foreign Exchange Office (OC). The assessment was carried out by a mission from the IMF Statistics Department that visited Rabat, Morocco during January 16–30, 2002.

The mission reached the following main conclusions:

- **General Data Dissemination System (GDDS) participation and Special Data Dissemination Standard (SDDS) subscription:** Morocco generally well exceeds the GDDS recommendations on periodicity and timeliness for its macroeconomic statistics, although the data coverage would need to be extended to include all central government operations, external debt service schedule, and wages to be in line with the GDDS recommendations. For most data categories currently disseminated, Morocco meets the periodicity prescriptions of the SDDS and, with a slight improvement, would also meet those of timeliness; in addition to those noted under GDDS, statistics would need to be disseminated on international reserves and foreign currency liquidity, international investment position, and general government operations. As such, Morocco is well positioned to meet the SDDS, and the process toward fulfilling the requirements of the standard would be facilitated by appointing a national coordinator and developing an action plan.
- **Prerequisites of quality:** Morocco's statistical system is highly decentralized. A variety of administrative ministries/agencies play key roles in producing statistics, whence the importance of coordination. However the body set up by legislation to coordinate statistical activities has not been operational for some time. As a result, departments tend to conduct their own statistical activities, and this applies equally within the MEFPT in the case of government finance statistics. Plans are, however, underway to amend the legal basis for the production of statistical information, and this is particularly important for the adoption of a new statistical law, a new coordination body (the National Statistical Information Council (CNIS) and the balance of payments. Further, some recent initiatives, such as the establishment of a common business register among ministries, are promising for strengthening coordination. The authorities recognize the importance of statistics as evidenced by the marked increase of resources devoted to the statistical programs since 1998 and by the qualifications of the staff assigned to statistics. While data quality is viewed as very important, user needs should more systematically be taken into account in the organization of the work.
- **Integrity:** The four main statistical agencies all demonstrate professionalism in compiling the statistics. They acknowledge the importance of ethical standards in the conduct of statistical operations, and some agencies plan to develop written directives to deal with conflicts that may arise. While the authorities seek to promote

transparency, the statistical functions are not always clearly defined (especially for the three agencies with administrative functions), and the public is not informed of the internal government access to data before publication.

- **Methodological soundness:** The need for the statistics to follow current international guidelines is well recognized by the Moroccan authorities, as evidenced, for example, by the price indices. The same generally applies to balance of payments and government finance statistics, although the implementation of these guidelines could be improved in terms of scope, classification, and valuation. For monetary statistics, data on the breakdown of bank credit to the public sector and to the private sector are not available. Recent major initiatives, such as the adoption of a new accounting framework in 2000, will greatly ease the transition to more current international guidelines that requires, among other things, a finer breakdown of claims. As for the national accounts, they are based on outdated guidelines and base year.
- **Accuracy and reliability:** While adequately checked and validated, the national accounts are adversely affected by gaps in the sources data and by the inappropriate technique to estimate GDP at constant prices which makes use of the single deflation method and ignores the equilibrium between resources and uses at constant prices. Revision studies are conducted, but their results are not always taken into account to improve estimates of subsequent periods. Both price indices undergo extensive validation processes that are somewhat hampered by outdated weights for the consumer price index and there are delays in obtaining source data for the producer price index. Government fiscal statistics are based on accurate and reliable data, although the coverage is limited to central government budgetary operations. Revision studies are not conducted. Except for out-of-date data on deposits at the Treasury, the source data for monetary statistics are accurate and reliable; revision studies are not conducted. Balance of payments statistics are compiled from detailed customs and exchange control data that are assessed and validated, although revisions are not studied as a means to improve preliminary estimates. In view of further liberalization measures, the authorities are aware of the limitation of administrative data, and are taking legal measures to facilitate access to survey sources data. In the meantime, however, no use is made of foreign data sources.
- **Serviceability:** While the macroeconomic statistics under review are widely recognized to be relevant, no systematic approach is in place to meet users' needs. The periodicity and timeliness of the statistics in most cases well exceed GDDS recommendations, and are not far from meeting the SDDS requirements. The statistics are generally reconcilable with each other. Overall, time series are consistent. The sub-annual series for fiscal statistics and balance of payments are disseminated only as cumulative month/quarter-to-date figures. Cycles of revisions are well established, preliminary data are usually identified as such, and revisions due to methodological changes generally explained. However, the revision policy is not published.
- **Accessibility:** The data are generally disseminated with commentaries, tables and graphs that facilitate the analysis, and can be accessed through various dissemination modes. Both government and external users have expressed a strong interest for publication of advance release calendars, a practice not currently followed in Morocco. Metadata are published for the national accounts, price indices, and balance of

payments statistics, but more comprehensive descriptions are needed on how the monetary and fiscal statistics are being compiled. Most publications provide adequate information on how to obtain user support.

I. INTRODUCTION

1. This data module of the Report on the Observance of Standards and Codes (ROSC) provides a review of Morocco's practices on the coverage, periodicity, and timeliness of the data against the IMF's General Data Dissemination System (GDDS). This review is complemented by an in-depth assessment of the quality of the national accounts, the consumer price index (CPI), the producer price index (PPI), government finance statistics (GFS), monetary statistics, and balance of payments statistics, using the Data Quality Assessment Framework (DQAF) developed by the IMF Statistics Department. Socio-demographic statistics are not covered in this assessment. This report is based on information gathered during a staff mission¹ from January 16–30, 2002, as well as on information publicly available from hard copy publications and on Internet websites.

2. Section II contains an assessment of Morocco's data dissemination practices against the GDDS; in response to Morocco's strong interest in subscribing to the Special Data Dissemination Standard (SDDS), the country's dissemination practices are also assessed against the SDDS. Section III presents a summary assessment of the quality of the six principal macroeconomic datasets, based on the specific DQAF for these datasets. Section IV lists the recommendations made by the IMF mission to further improve the quality of Morocco's macroeconomic statistics, in particular with a view to subscribing to the SDDS.

II. DATA DISSEMINATION PRACTICES AND GENERAL DATA DISSEMINATION SYSTEM

3. As Morocco does not participate in the GDDS, the review of its dissemination practices is limited in this section to the GDDS data dimension, i.e., the coverage, periodicity, and timeliness of core macroeconomic statistical frameworks and indicators (see Table 1). The various dimensions of the GDDS for six macroeconomic datasets are addressed through the DQAF.

4. The units/agencies producing macro-economic statistics in Morocco are the Statistics Directorate (DS) in the Ministry of Forecasting and Planning; the Treasury and External Financing Directorate (DTFE) in the Ministry of Economy, Finance, Privatization, and Tourism; Bank Al-Maghrib; and the Foreign Exchange Office (OC). The DS is responsible for producing the national accounts and price statistics. Government finance statistics are produced by the DTFE. Bank Al-Maghrib produces the monetary statistics and the OC produces the balance of payments statistics. Morocco provides access to these data and metadata through a number of publications and the following Internet websites:

- **Statistics Directorate:** <http://www.statistic.gov.ma>

¹ The mission team was led by Ms. Lucie Laliberté and comprised Messrs. Cornelis Gorter and Philippe de Rougemont, Msses. Florina Tanase and Beatrice Timmermann, all from the IMF Statistics Department, Mr. Tim Jones (Expert), and Mrs. Anne Rousseau, Administrative Assistant, IMF Bureau of Languages Services.

- **Treasury and External Financing Directorate:** <http://www.finances.gov.ma/dtfe/tbstat.htm>
 - **Bank Al-Maghrib:** <http://www.bkam.ma>
 - **Foreign Exchange Office:** <http://www.oc.gov.ma>
5. Morocco meets or exceeds the GDDS recommendations for the main frameworks and indicators in all sectors, with the following exceptions:
- In the **real sector**, annual statistics on wages or earnings should be published covering the private (formal) sector in addition to the public sector, and the production index should be monthly rather than quarterly.
 - In the **fiscal sector**, annual data on central government operations should be published in line with the main GFS framework including all non-budgetary central government units.
 - In the **external sector**, the external debt service schedule should be published twice a year. Public and publicly-guaranteed external debt statistics should be published every quarter.
6. As originally expressed during an IMF multisector statistics mission in 1998, Morocco strongly maintains its interest in subscribing to the SDDS. Indeed, the metadata project started by the Moroccan authorities in 1998 with a view to subscribing to the SDDS was recently partially updated. For the SDDS,
- Morocco is well placed in terms of **periodicity** of most data categories (except, notably, the central government debt);
 - the **timeliness** of release would need improvement, if only slightly, in most areas;
 - further, in addition to improvements in the **coverage** noted earlier to reach GDDS recommendations, the following statistics would need to be produced: (i) monthly statistics on international reserves and foreign currency liquidity, (ii) quarterly statistics on wages/earnings, (iii) annual statistics on general government operations, and (iv) annual statistics on the international investment position.

III. SUMMARY ASSESSMENT OF DATA QUALITY

7. The quality² of macroeconomic statistics that underpin surveillance of countries' economic policies is assessed with the Data Quality Assessment Framework (DQAF), as complement to the dissemination standards. The DQAF comprises a generic framework³ and a set of dataset-specific frameworks. The frameworks cover five dimensions of data quality—integrity, methodological soundness, accuracy and reliability, serviceability, and accessibility—and a set of prerequisites.

² Information on data quality can be found on the IMF website at the “Data Quality Reference Site” (<http://dsbb.imf.org/dqrsindex.htm>).

³ See also the Generic Framework set out in Appendix II of the accompanying Detailed Assessments volume of this report.

Table 1. Morocco: Overview of Current Practices Regarding Coverage, Periodicity, and Timeliness of Data Compared to the General Data Dissemination System

GDDS Data Category	Coverage (meets GDDS)	Periodicity		Timeliness	
		GDDS	Morocco	GDDS	Morocco
COMPREHENSIVE FRAMEWORK					
Real sector: National Accounts	Yes	A	Q, A	10-14 mths	Q: 3.5 mths; A: 5-6 mths
Fiscal sector: Central govt. operations	No	A	NA	6-9 mths	NA
<i>General govt. operations</i>	<i>No</i>	<i>A</i>	<i>NA</i>	<i>6-9 mths</i>	<i>NA</i>
Central govt. debt	Yes	A	A	6-9 mths	3 mths
Financial sector: Broad money survey	Yes	M	M	2-3 mths	35-37 days
External sector: Balance of payments	Yes	A	Q	6-9 mths	4-6 mths
<i>International investment position</i>	<i>No</i>	<i>A</i>	<i>NA</i>	<i>6-9 mths</i>	<i>NA</i>
DATA CATEGORIES AND INDICATORS					
Real Sector					
GDP (nominal and real)	Yes	A (Q)	A	6-9 mths	Q: 3.5 mths; A: 5-6 mths
<i>Gross national income, capital formation, saving</i>	<i>Yes</i>	<i>A</i>	<i>A</i>	<i>6-9 mths</i>	<i>5-6 mths</i>
Manufacturing or industrial production index/indices.	Yes	M	Q	6 wks-3 mths	10 wks
Primary commodity, agricultural, or other indices, as relevant	Yes	As relevant	M	6 wks-3 mths	< 3 mths
Consumer price index	Yes	M	M	1-2 mths	3 wks
<i>Producer price index</i>	<i>Yes</i>	<i>M</i>	<i>Q</i>	<i>1-2 mths</i>	<i>3 wks (prelim.)</i>
Employment	Yes	A	Q	6-9 mths	10 wks
Unemployment	Yes	A	Q	6-9 mths	10 wks
Wages/earnings (all sectors)	No	A		6-9 mths	
Fiscal Sector					
Central govt. budgetary aggregates: revenue, expenditure, balance, and financing with breakdowns (debt holder, instrument, currency)	Yes	Q	M	1 qtr	2 mths
<i>Interest payments</i>	<i>Yes</i>	<i>Q</i>	<i>M</i>	<i>1 qtr</i>	<i>2 mths</i>
Central govt. debt: domestic and foreign debt, as relevant, with appropriate breakdowns (debt holder, instrument, currency)	Yes	A (Q)	A	6-9 mths	3 mths
<i>Government guaranteed debt</i>	<i>Yes</i>	<i>A</i>	<i>A</i>	<i>1-2 qtrs</i>	<i>3 mths</i>
Financial Sector					
Broad money and credit aggregates	Yes	M	M	1-3 mths	35-37 days
Central bank aggregates	Yes	M	M	1-2 mths	35-37 days
Short- and long-term govt. security rates, policy variable rate	Yes	M	D,Q,S,A (Depending on type of rate)	In high-frequency publication	Daily: same day
<i>Money or interbank market rates and a range of deposit and lending rates</i>	<i>Yes</i>	<i>M</i>	<i>D,Q,S,A</i>	<i>In high-frequency publication</i>	<i>Daily</i>
<i>Share price index, as relevant</i>	<i>Yes</i>	<i>M</i>	<i>D</i>	<i>In high frequency publication</i>	<i>Daily</i>
External Sector					
Balance of payments aggregates	Yes	A (Q)	Q	6 mths	4-6 mths
Public and publicly guaranteed external debt outstanding, with maturity breakdown	Yes	Q	A	1-2 qtrs	3 mths
Public and publicly guaranteed debt service schedule	No	Twice yearly		3-6 mths	
<i>Private external debt not publicly guaranteed</i>	<i>No</i>	<i>A</i>	<i>NA</i>	<i>6-9 mths</i>	<i>NA</i>
Gross official reserves denominated in U.S. dollars	Yes	M	W	1-4 wks	1 wk
<i>Reserve-related liabilities</i>	<i>Yes</i>	<i>M</i>	<i>W</i>	<i>1-4 wks</i>	<i>1 wk</i>
Total exports and total imports	Yes	M	M	8wks-3 mths	30-40 days
<i>Major commodity breakdowns with longer time lapse</i>	<i>Yes</i>	<i>M</i>	<i>M</i>	<i>8 wks-3 mths</i>	<i>30-40 days</i>
Exchange rates: spot rates	Yes	D	D	In high-frequency publication	1 day

Italics indicate encouraged categories

Note: (D) daily; (W) weekly; (M) monthly; (Q) quarterly; and (A) annual

8. Morocco's macroeconomic statistics are considered to be adequate for surveillance purposes. Nevertheless, IMF staff noted some statistical practices where improvements could be made that could enhance the accurate and timely analysis of economic and financial developments and the formulation of appropriate policies. The main findings are presented below.

Prerequisites of quality

This category in the DQAF identifies conditions within the agency in charge of producing statistics that have an impact on data quality. The elements within the category refer to the legal and institutional environment, resources, and quality awareness.

9. Morocco's national statistical data system is highly decentralized, with many administrative agencies playing important roles in producing statistics. Legally, the body responsible for coordination is the Statistical Studies Coordination Committee (COCOES) for which the **DS** provides the secretariat. In this capacity, the DS is at the heart of the national statistical system, but this central role is not effectively implemented in practice. The COCOES has not been operational for some time now and the flows of essential enterprise accounting data between the producers of basic statistics and the DS has been interrupted. Access to administrative data is especially important for the national accounts, a system that depends on consistent and extensive databases. In this regard, the project underway to set up a common business registration with participation of various ministries is to be welcomed. The DS is very conscious of confidentiality requirements (e.g., informing respondents of confidentiality provisions and applying aggregation rules to preserve confidentiality). Overall, the resources available for establishing the national accounts are adequate, having been increased significantly over the last few years, and the staff is highly qualified. Current resources to produce the price indices are also adequate for regular production, though they may be a little tight for developments such as the rebasing of the CPI or possible extensions of the PPI. Though it is clearly concerned about data quality, the DS has not established a systematic dialogue with users as a means to view quality in its broadest sense.

10. The GFS are compiled by the **DTFE** within a narrow context of central government budget⁴ monitoring and financing; they exclude social security funds and other central government units as well as local governments. The responsibility for producing a broader scope of the GFS statistics should be clarified. Currently, the source data required to compile a broader GFS coverage (central and general government as well as public sector operations) do exist, for instance at the General Treasury of the Kingdom. The GFS are compiled on the basis of aggregated accounting data, and, as such, the rules governing statistical secrecy are observed. The resources currently available include highly qualified professional staff, but they have not had training in the new methodological guidelines. A more coordinated approach is needed to implement the broader scope of the new guidelines. The data quality is viewed in the narrow sense of accuracy.

⁴ Which comprises the General Budget, satellite [annex] budgets, special treasury accounts and the autonomously managed government services.

11. Monetary statistics are produced by **Bank Al-Maghrib**, as provided for in its Charter and the banking law of 1993. Under the latter law, the banks are required to provide monthly statements compiled according to the sectoral chart of accounts that came into force in January 2000. The data are used for statistical purposes only, and their confidentiality is respected. This is further reinforced by Bank Al-Maghrib's conditions of service that require employees to maintain professional secrecy. The number of staff assigned to monetary statistics is considered insufficient, and Bank Al-Maghrib is giving thought to adding staff through external recruitment. Except for some source data that are received as hard copy only, which slows somewhat the statistical process, the compilation of monetary statistics is organized efficiently. The quality awareness measures in place do not include a systematic dialogue with users.

12. The **OC** lacks a firm legal basis for compiling and disseminating balance of payments statistics, relying for the time being exclusively on customs and exchange control data. These data are gradually to become less available and too limited as liberalization proceeds and as participation of foreign investors in the Moroccan economy increases. The OC has initiated legislative measures that would give it access to statistical data collected directly from economic operators. This should help toward broadening the awareness of quality from its narrow base of exclusively processing administrative data.

Integrity

Integrity identifies features that support firm adherence to objectivity in the collection, compilation, and dissemination of statistics so as to maintain users' confidence. Elements refer to the professionalism and ethical standards that should guide policies and practices, which should be reinforced by their transparency.

13. The **DS** follows professional principles in performing its work and is subject to the codes of conduct of civil servants. The DS indicated that it had had no experience of external interference in the compilation and dissemination of its statistics, and that the national accounts are available to all users at the same time that they are provided to government users. However, once the price indexes have been passed to publications staff, they are effectively available on demand, which means that some users would have access to them prior to their publication. The DS is vigilant in ensuring that it is given attribution for its statistics reproduced elsewhere. There are currently no written directives to deal with conflicts of interests, although a code of conduct is planned.

14. Staff involved in producing government finance statistics at the **DTFE** and the General Treasury of the Kingdom are subject to the codes of conduct of civil servants and accountants. Their independence is largely ensured by the fact that the compilation of the Treasury's expenditure and revenue table is based on strict government accounting rules, as well as on statistical standards they must follow. However, the choice of sources and of classification techniques used by the DTFE may be influenced at times by the budget's nomenclature. Finally, public documentation is not available about the way the GFS are compiled, including the internal access the government has to the figures prior to their public release.

15. The Charter of **Bank Al-Maghrib** provides for its independence from political interference, and this is well publicized with the Charter and the banking law posted on the

Bank Al-Maghrib's recently developed website. The monetary statistics, which are disseminated in various publications and the website of Bank Al-Maghrib, are clearly attributed to Bank Al-Maghrib. Bank Al-Maghrib has indicated that data are disseminated simultaneously to all interested users. However, information on the policies and practices governing the compilation and dissemination of monetary statistics is not published. The recruitment of staff is essentially by competition and a program of internal training is provided. The recruited staff are formally instructed in the ethical rules.

16. The **OC** appears to enjoy full independence in compiling the balance of payments statistics. However, there is not sufficient public information on the policies and practices governing the agency's statistical activities, including access to preliminary data before they are publicly available. Ethical standards are respected and new recruits learn about them through internal training at the OC.

Methodological soundness

Methodological soundness refers to the application of international standards, guidelines, and agreed practices. Application of such standards, which are specific to the dataset, is indicative of the soundness of the data and fosters international comparability. Elements refer to the basic building blocks of concepts and definitions, scope, classification and sectorization, and basis for recording.

17. The annual and quarterly national accounts statistics have a 1980 base year, and follow the recommendations of the *1968 SNA*. At present, the annual accounts neither include tables showing the expenditure components of GDP at constant prices, nor regular institutional sector accounts. Only limited details are provided by activity and no details of household final consumption are given. However, a major project is underway to rebase the **national accounts** and to adopt the *1993 SNA*, making use of *ERETES* software and incorporating new structural data. Meanwhile, much promising work has already been done on the national accounts reform, which the authorities indicate should be completed by end-2003.

18. The **CPI** methodology broadly follows International Labor Organization guidelines. The CPI excludes imputed rents, and the classification is closely allied to COICOP. The reference population is limited to the so-called middle-income urban households. (There is an unpublished index for the rural population). The base year for the CPI is 1989 but the weight structure has been revised in January 1993. Based on 1997, the **PPI** covers mining, manufacturing and energy. Its methodology is in line with international standards, using the up-to-date classification of activities based on ISIC rev 3.

19. The DTFE's Treasury's expenditure and revenue table is generally consistent with the structure and methodology recommended in *A Manual on Government Finance Statistics 1986 (GFSM 1986)*, but there are some deviations reflecting the budget classification. For instance, transfers are classified as goods and services, and privatization operations are recorded in revenue rather than in "loans minus repayment" (*GFSM 1986*) or financing (*Government Finance Statistics Manual 2001*). The operations of Hassan II Fund, though converted as an extrabudgetary unit since January 2002, should continue to be part of the Treasury's expenditure and revenue table. Cash-based recording of revenue and payment orders-based

recording of expenditure, as well as the amounts recorded, follow recognized practices. Deposits at the Treasury and the advances of Bank Al-Maghrib are, however, excluded from domestic debt. The GFS coverage does not include local authority accounts, which have, however, been recently compiled by the Treasury General of the Kingdom.

20. The methodological framework used for compiling **monetary statistics** is based on the concepts and definitions in the *Guide to Money and Banking Statistics in International Financial Statistics* of December 1984. The monetary survey presents the consolidated accounts of the central bank and the other depository corporations, thus ensuring full coverage of the depository corporations sector. There are deficiencies in the breakdown of the financial assets and liabilities by resident institutional sectors; accrual accounting and market price valuation should also be applied. Offshore banks are treated as nonresident, and not as other resident financial intermediaries (though their economic activities are considered negligible).

21. In general, Morocco's **balance of payments** statistics are in line with the concepts and definitions set out in the fifth edition of the *Balance of Payments Manual (BPM5)*. Further work is however needed to implement certain recommendations on scope, classification, and basis for recording. Thus, recent measures to exclude the effects of changes in exchange rates from the valuation of transactions in reserve assets should be continued; transactions in foreign currency assets and liabilities of intermediary banks at their correspondent banks should also be excluded from transactions in reserve assets. The OC is planning to treat operators in free trade zones as residents and should do the same for offshore banks located in Morocco. Transfers of funds by Moroccan nationals residing abroad into their own Dirham accounts are presently treated as current transfers. The Moroccan authorities explained that these funds can only be used within Morocco by the account holders or their families; these conditions may evolve as further liberalization occurs and may need to be reconsidered.

Accuracy and reliability

Accuracy and reliability identifies features that contribute to the goal that data portray reality. Elements refer to identified features of the source data, statistical techniques, and supporting assessments and validation.

22. The structural data upon which the **national accounts** estimates depend are seriously outdated, and the base year of the present estimates is still 1980. For example, there is no information on the output of market services. Overall, the statistical techniques used to compile the national accounts are appropriate, except for those for estimating GDP at constant prices. Data sources are checked and discrepancies between intermediate and final estimates investigated. The validation process is, however, somewhat hampered by the single approach (production) used to compile the national accounts. Studies of revisions are conducted, but the results are not always used to improve preliminary estimates. As for the quarterly estimates, statistical techniques are extensively used since there is virtually no data source (with the exception of a large-scale labor force survey that provides, however, most useful quarterly indicators of employment). Still, each year the estimates are revised to make them consistent with the annual totals on occasion of the compilation of the annual accounts. As noted earlier, a major project has been underway for some time to renew the annual sources of structural data, including a survey of informal activity as well as a census of formal sector enterprises. This

project, which will provide for the integration of more data sources, along with the proposed establishment of a common business register and better relationships with other agencies, should lead to major improvements to the national accounts.

23. The **CPI** and **PPI** source data collected by the DS are thoroughly checked. The chained Laspeyres index is used for aggregation, and the methods used to replace missing observations are satisfactory. The CPI weights were sometimes updated in January 1993 on the basis of the 1990-91 household standards of living survey. A full reform of the index is planned for 2003 to be based on the results of a new household consumption survey. Weights for the current PPI are based on data from the 1997 annual industrial survey, supplemented with information from other survey sources. There are, however, delays in obtaining certain data sources. The coverage of these source data, compared to their scope, is about 80%. While the staff involved in compiling the price indices is very conscious of taking account of quality changes within varieties, it could usefully apply statistical techniques to analyze the data, for example, by monitoring the variation in the observations for specific varieties each month. During the mission, a study was initiated on the revisions in the PPI series resulting from delays in the receipt of source data.

24. There is a great wealth of source data available to produce a broader scope of **GFS** that could encompass the full public sector. In the meantime, the data routinely available to the DTFE for compiling the Treasury's expenditure and revenue table come from accounting sources limited to the central government, sources that are, however, considered accurate and that are aggregated by the General Treasury of the Kingdom. In addition, the operational databases maintained by the DTFE ensure the reliability of domestic debt and external debt data (stocks, drawings, repayments and interest). However, the potential of revision studies to improve the accounts is hampered by the current procedure of including revisions in the monthly cumulative statistics, instead of in the months to which they apply. A local government account has recently been established by the General Treasury of the Kingdom as the culmination of a broad-based project to collect detailed data. This account, together with data from the Directorate of public establishments and participations (DEPP), could be used to compile and disseminate an expanded GFS that would cover general government and the public sector.

25. The source data used for compiling **monetary statistics** comprise the monthly financial statement of Bank Al-Maghrib, the aggregated financial statements of the banks, and data on deposits at the Treasury and at the two other depository corporations. All the data sources are considered accurate and are current, except for the deposits at the Treasury where information is no longer forthcoming. Although the new sectoral chart of accounts was implemented in January 2000, the banks have yet to provide the breakdown of domestic credit by institutional sector that is required. In 2001, Bank Al-Maghrib issued a Circular to strengthen the reporting requirements for banks to submit their reporting statements in a timely fashion and with the required details.

26. The monetary statistics are published in a provisional version for the latest month and in a final version for the previous month. For banks that are late, the data of the previous month are brought forward and superseded the subsequent month with reported data. The revisions are small, as the focus is more on coverage than timeliness; a shift to more timely data would entail

making greater use of estimates (that would benefit from revision studies). There is no program for seasonally adjusting the monetary aggregates.

27. Customs data and bank reports on foreign exchange operations are the data sources for Morocco's **balance of payments**. The OC continuously assesses and validates the data collected from these sources. Intermediate data are regularly cross-checked with other sources, and the statistical discrepancy analyzed in order to detect inconsistencies. However, they may be limited to ensure that the estimates remain well-founded in an environment where transactions with the rest of the world are being liberalized, and this is why the OC initiated legal measures to obtain access to survey sources. In the meantime, the data sources could also be expanded to include international sources. Revisions are not routinely studied with a view to strengthening, where necessary, the methods used to conduct preliminary estimates.

Serviceability

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

28. There is no routine arrangement for consultations with major users to verify the serviceability of the **national accounts** statistics. The dissemination practices as regards periodicity and timeliness are well within the GDDS recommendations, and would meet the SDDS requirements with a small improvement in the release dates. National accounts estimates on transactions with the rest of the world are comparable with the balance of payments figures; the national accounts figures differ from the government finance statistics because of different definitions. The revision policy for the provisional estimates of the annual and quarterly accounts is stable, but is not explained in the documentation to the public.

29. The **CPI** and **PPI** seem to meet user needs. However, there is no systematic method of consulting users. The CPI is produced on a monthly basis. The PPI and the index of production itself (produced directly from volume data) are published on a quarterly basis (according to SDDS this should be monthly). The two price indices are available three weeks after the end of the reference period, surpassing the one-month requirement in the SDDS. The revision policy could be clarified in a note in the publication.

30. The Treasury's expenditure and revenue table is very useful for monitoring the departmental revenue and spending against the budget. It also contributes to the forecasting processes, especially those related to the Finance Acts. Moreover, given the short time in which it is produced—close to SDDS standards—it can play a major role in discussions among government ministries. It therefore seems very suitable for the needs of government authorities. Nonetheless, more attention could be paid to the needs of other users. The details supplied to the general public are insufficient and the coverage too narrow to be amenable to international comparisons. No details in financing are provided with the expenditure and revenue table. Users may find it hard to make the link between financing data and debt data because of the narrow definition of domestic debt. Moreover, there are breaks in the time series. Finally, the

revisions are not shown in the specific monthly data but only in the cumulative month-to-date data, and the public is not informed of the revision policy procedures.

31. Regarding Morocco's **monetary statistics**, users have expressed interest in the breakdown of domestic credit by institutional sector, which is not at present available. Special attention has recently been paid by Bank Al-Maghrib to improving the timeliness of monetary statistics which is now about 35-37 days, thus greatly exceeding the GDDS recommendations, and coming close to the SDDS requirement (30 days). The periodicity of monetary statistics is monthly. While there remain breaks in the more detailed series, Morocco's monetary statistics are available in the form of long, consistent, monthly time series (1981-2001) because of the efforts made after the 1998 reform to reconstruct the data series. Provisional and final versions of monetary statistics are clearly identified. However, Bank Al-Maghrib does not provide information on its revision policy.

32. The timeliness in disseminating the **balance of payments** data exceeds the GDDS recommendations, and the quarterly periodicity is in fact in conformity with the SDDS. Frequent requests by the public to the OC attest the very keen interest in the balance of payments data. However, there is not a systematic approach to user consultation. The balance of payments statistics are reconcilable with the foreign trade data, the "rest of the world" account, and external debt data. However, users have in the past noted discrepancies with other economic indicators. While preliminary data are identified as such, revisions are made continuously, to the cumulative series for the quarter to date, and not to the quarters to which they relate. Although users are aware of these procedures, the revision policy is not published as such.

Accessibility

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

33. The **national accounts** statistics are disseminated with comments, tables, and charts to facilitate their analysis. The data are disseminated first by press release, then in the monthly bulletin *Repères statistiques* and on the Internet, and later in a more comprehensive publication. The provision of more detailed time series upon request from the Directorate's public database on diskette or by e-mail could be better advertised in the paper publications. A major project is underway to improve on-line access to time-series. Detailed metadata are published, and there is a help service for users. While the publication dates are stable, an advance release calendar is not however available.

34. Similarly, although users know roughly when to expect the data, no advance release calendar is published for the **CPI** and the **PPI**. At present, once the price indexes have been passed to publications staff, they are effectively available on demand before they are published officially in the monthly *Repères statistiques* and other media, including the website. Appropriate methodological notes and catalogs of publications are available, along with a help service to users.

35. The **GFS** are published in diverse formats by various directorates of the MEFPT and the Ministry of Economic Forecasting and Planning in the context of economic bulletins/reports (memoranda) and economic activity indicators, and by Bank Al-Maghrib in its quarterly bulletin with several charts and explanatory remarks. As the presentation frameworks vary, this can be confusing to users, especially as there is no longer a publication (annual) solely dedicated to GFS. The figures shown are mainly cumulative month-to-date, and time series are available upon request. The documentation describing the sources and methods is not published. While staff members are available to respond to users' questions, the publications do not provide details of the person or telephone number to contact.

36. Morocco's **monetary statistics** are published in a monthly publication, a quarterly bulletin, and the Annual Report of Bank Al-Maghrib. The monthly publication and the annual report contain charts as well as analyses of developments. Since December 2001, the Bank has a website on which it disseminates monetary statistics. While approximate release dates are generally known by regular data users, there is no advance release calendar. The published methodology is limited to the brief explanatory memorandum prepared for the 1998 reform. More detailed data than those published are available free of charge, on request. The publications and the website provide the address, fax number, telephone number and e-mail address of Bank Al-Maghrib staff.

37. The accessibility of the **balance of payments** statistics is adequate to meet most user needs. The statistics are released in monthly publications (for major categories of international transactions) and in quarterly and annual publications and are also available on the OC's website. Only the quarter-to-date figures are currently published, but it is planned to publish quarterly series by the end of 2002. Upon request, data that are more detailed but not confidential can be obtained free of charge. In the publications, the data are accompanied by methodological memoranda and explanatory notes. The methodological publication currently available, however, is not sufficiently comprehensive to meet the needs of more specialized users. Approximate release dates are generally known by regular data users, but there is no published advance release calendar.

Table 2. Morocco: Data Quality Assessment Framework—Summary Presentation of Results

Key: NA = Not Applicable; O = Observed; LO = Largely Observed; LNO = Largely Not Observed; NO = Not Observed; SDDS = Complies with SDDS Criteria									
Element	National Accounts (NA)	Consumer Price Index (CPI)	Producer Price Index (PPI)	Government Finance Statistics (GFS)	Monetary Statistics (MS)	Balance of Payments (BOP)	Comments: Paragraph No.*	Plans for improvement and targeted timetable	
0. Prerequisites of quality									
0.1 Legal and institutional environment	LO	O	O	LNO	O	LO	9. 10. 12.	NA, BOP: New laws have been drafted.	
0.2 Resources	O	O	O	O	LO	O	11.	MS: Bank Al-Maghrib is considering an increase in the staffing of the Division of Monetary Research (DEM). BOP: New recruitment criteria have been adopted to take into account new work priorities. NA: see 0.1	
0.3 Quality awareness	LO	LO	LO	LO	LO	LO	9. 10. 11. 12.		
1. Integrity									
1.1 Professionalism	O	O	O	O	O	O			
1.2 Transparency	LO	LO	LO	LO	LO	LO	13. 14. 15. 16.	GFS: Plan to publish institutional arrangements as part of a sources and methods annex to a publication on annual data.	
1.3 Ethical standards	O	O	O	O	O	O			
2. Methodological soundness									
2.1 Concepts and definitions	LO	O	O	LO	LO	LO	17. 19. 20. 21.	NA: Reform to update the base year and implement the 1993 SNA is under way. The target date is end-2003. MS: MFSM methodology is to be fully implemented (medium-term). BOP: The codes used to classify transactions reported by intermediary banks are being revised to take better account of the BPM5 classification. NA: See 2.1. GFS: GFS will be consolidated (the "State," local government, civil servant pension and insurance schemes), June 2003. BOP: The OC plans to include Morocco's free trade zones in the definition of its economic territory.	
2.2 Scope	LNO	LO	O	LNO	O	LO	17. 18. 19. 21.		
2.3 Classification/sectorization	LO	O	O	LO	LNO	LO	17. 19. 20. 21.	NA: See 2.1. MS: Bank-Al Maghrib is enforcing requirements for banks to provide the sectoral information.	
2.4 Basis for recording	LO	O	O	O	LO	LO	17. 20. 21.	NA: See 2.1. GFS: A gross, instead of net, consolidated approach will be used for tracking Treasury special accounts' operations. Dec. 2002. MS: See 2.1. BOP: The OC began in the first half of 2001 to exclude the effects of changes in exchange rates from the valuation of transaction in reserve assets.	
3. Accuracy and reliability									
3.1 Source data	LNO	LO	LO	O	LO	LO	22. 23. 25. 27.	NA: See 2.1. Several improvements have already been made (see text). Improving the current statistics is included in the Five-Year Plan. CPI: Reform planned for 2003 to incorporate the 2001 household consumer survey results. MS: A new sectoral chart of accounts was introduced since January 2000. See also 2.3. BOP: The OC has targeted several areas in which surveys are required.	

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3.2 Statistical techniques	LO	LO	O	O	LO	LO	22. 23. 26. 27.	NA: See 2.1. MS: Bank Al-Maghrib plans to implement a program for seasonal adjustment of the monetary aggregates.	
3.3 Assessment and validation of source data	O	O	O	O	O	O			
3.4 Assessment and validation of intermediate data and statistical outputs	O	O	O	O	O	LO	27.	BOP: The OC is involved in Eurostat's MedComext project, comparing Moroccan data with EU data on foreign trade in goods. A similar project is envisaged for trade in services.	
3.5 Revision studies	LNO	O	LO	LO	LO	LNO	22. 23. 24. 26. 27.	PPI: Revision studies underway.	
4. Serviceability									
4.1 Relevance	LO	LO	LO	LO	LO	LO	28. 29. 30. 31. 32.	The data producing agencies envisage establishing a more systematic dialogue with users.	
4.2 Timeliness and periodicity	O	SDDS	LO	O	O	O	29.	PPI: As quarterly periodicity meets current local needs, there is no plan to go monthly. GFS: Central government's external and total debt will be compiled and published quarterly. The Treasury's expenditure and revenue table will include financing details and will be posted on the web, 30 days after the end of the reference period, with comments where applicable.	
4.3 Consistency	O	O	O	LO	O	LO	30. 32.	BOP: The authorities have stated that further harmonization of the "rest of the world" account with the balance of payments is underway, in consultation with the DS, as part of the implementation of the /993.SMA.	
4.4 Revision policy and practice	LO	LO	LO	LO	LO	LNO	28. 29. 30. 31. 32.	GFS: The penultimate month (revised) will be shown in the Treasury's expenditure and revenue table. BOP: Plan to implement quarterly, instead of cumulative series, paving the way for clearer revision procedures.	
5. Accessibility									
5.1 Data accessibility	LO	LO	LO	LNO	LO	LO	33. 34. 35. 36. 37.	NA, CPI/PPI: The DS plans to publish an advance release calendar. GFS: Long time-series will be posted on the DTFE website. The annual statistics <i>Fascicule</i> will be revised and improved, covering the whole central government and eventually general government. MS: Bank Al-Maghrib is considering announcing advance release dates. BOP: An on-line database with quarterly data (as opposed to cumulated data) is planned for late 2002.	
5.2 Metadata accessibility	O	O	O	LNO	LNO	LO	35. 36. 37.	GFS: Completion of the <i>Fascicule</i> on government finance with an annex on sources and methods. MS: Bank Al-Maghrib intends to prepare and publish a full methodological document and to keep it up to date.	
5.3 Assistance to users	O	O	O	LO	O	O	35.	GFS: A contact person or telephone number will be shown in the Economic Bulletin [Memorandum].	

IV. STAFF'S RECOMMENDATIONS

38. Based on the results of the data quality assessment, discussions with the Moroccan data producing agencies, and responses from data users, the following measures are proposed to (a) enhance the organizational structure of Morocco's statistical system; (b) bring the latter closer to international standards, and (c) improve the usefulness of the data. These recommendations, which are subdivided into those that can be implemented in the short-term (less than a year) and those that can be implemented in the medium-term (more than a year but less than three years), build on the authorities' plans as shown in Table 2. In addition, the most critical measures to address deficiencies in respect to these points and make economic and financial statistics more adequate for surveillance are identified as priority.

General Recommendations

Short term

- **As a priority**, appoint a coordinator for all work related to Morocco's subscription to the SDDS, with responsibility for drawing up, in consultation with all the agencies concerned, an action plan spelling out the tasks to be accomplished by each agency, with deadlines, and for monitoring progress;
- **As a priority**, strengthen the coordination between the main agencies that collect and disseminate macroeconomic statistics;
- **As a priority**, adopt a revision policy and practice that takes account of user needs with regard to consistency of the data over time. Monitor revisions and analyze their impact, direction, and sources to improve the data compilation processes and techniques; and
- Develop and disseminate advance publication calendars for all the sectors.
- Establish standard arrangements for consulting the users of macroeconomic statistics.

Medium term

- Develop a website dedicated to data dissemination within the SDDS framework;
- Continue the development of metadata for the SDDS datasets.

Real Sector

Wages/earnings and industrial production index

Short term

- **As a priority**, study the modalities of developing quarterly statistics on the wages/earnings of formal sector employees;
- **As a priority**, study the feasibility of establishing a monthly industrial production index and reduce the time for dissemination to six weeks, for instance by moving toward the use of total turnover data deflated by monthly producer price indices.

National Accounts

Short term

- Speed up compilation of the quarterly national accounts by ten days to meet the SDDS timeliness;
- Vigorously pursue the program to reform the national accounts and the structural and periodic basic statistics on which they are based;
- Continue developing the proposed business register and keep it up to date; and
- Increase the staffing for the processing of data from the household consumption survey, so that the results are available on time.

Medium term

- Conduct structural censuses/surveys (agriculture, industries, services, informal sector, construction and public works, etc.) every five years preferably, and at least every ten years, strictly observing the regular cycle once it is set.

Consumer Price Index

Medium term

- Develop a continuous system for updating the products and the weights applied to price indices; ensure that household surveys are carried out preferably every three years.

Producer Price Index

Short term

- Post the producer price index data on the DS website.

Government Finance Statistics

Short term

- **As a priority**, implement the authorities' plans: (i) to publish the details on financing in the Treasury's expenditure and revenue table, (ii) to include the penultimate month (revised) in this table;
- **As a priority**, revive, in an improved format, the publication of annual statistics, covering the whole of central government and eventually general government;
- Publish monthly and quarterly data (in addition to time series of cumulative data) and with a greater detail, which is internally available; and
- Reclassify properly transfers paid and privatization proceeds; maintain the Hassan II Fund within central government and in the Treasury's expenditure and revenue table;

and include deposits at the Treasury and the advances of Bank Al-Maghrib within domestic debt.

Medium term

- Publish consolidated data on general government using the data on the non-budgetary central government units from the DEPP and incorporating the local authorities account established by the General Treasury of the Kingdom. Clarify the responsibility of producing the broader scope of GFS statistics along with the resources required;
- Produce data of public sector enterprises controlled by government departments; and
- With technical assistance, design and implement a strategic plan for the phased introduction of the IMF *Manual on Government Finance Statistics (GFSM 2001)*. Arrange for the training and allocation of staff.

Monetary and Financial Statistics

Short term

- **As a priority**, reduce to 15 days the timeliness of the analytical accounts of Bank Al-Maghrib and to one month those of the banking sector;
- **As a priority**, disseminate the data on the breakdown of bank credit to the public sector and to the private sector;
- Strengthen the staff currently responsible for compiling the monetary statistics;
- With technical assistance, adopt the *MFSM* methodology concerning: (i) the sectorization of the economy; (ii) the classification and valuation of financial assets and liabilities; and (iii) accrual accounting for the compilation of monetary statistics; and
- Seek the cooperation of the General Treasury of the Kingdom to provide current data on deposits at the Treasury.

Medium term

- **As a priority**, arrange for the electronic transmission to the Research Department of the financial statements of Bank Al-Maghrib and the aggregated financial statements of the banks (which are now reported in paper format); and
- Establish a program for seasonally adjusting the monetary aggregates.

External Sector

Short term

- **As a priority**, establish and disseminate the template on international reserves and foreign currency liquidity;
- **As a priority**, establish the international investment position, using available stocks of public and private external debt and on international reserves and estimating the

remaining accounts (e.g., by accumulation of the transactions). For the latter accounts, develop in the longer run a survey system with the help of technical assistance;

- **As a priority**, reduce to three months the time taken to disseminate the balance of payments by: (i) identifying the delays in checking and validating the source data; (ii) studying the impact of the adjustments made to the source data; and (iii) where necessary, developing estimation methods for compiling preliminary data. Consider disseminating the data by press release to reduce the time taken to publish them; and
- **As a priority**, change the classification and valuation of the data on reserve assets to follow the recommendations of *BPM5*; in particular, reclassify transactions in foreign currency assets and liabilities of intermediary banks with their correspondent banks and continue eliminating the effect of exchange rate changes.

Medium term

- Use secondary sources—e.g., international organizations such as the Bank for International Settlements, the OECD, the IMF, and the World Bank—to validate the balance of payments figures;
- With technical assistance, develop quarterly surveys of enterprises and other agencies to improve the scope, classification, and valuation of balance of payments transactions, in particular for processing, transportation services, and financial transactions; and
- Ensure the participation of some staff members of the OC's Research and Balance of Payments Division in the Fund's seminars on balance of payments methodology.

INTERNATIONAL MONETARY FUND

MOROCCO

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

Response by the Authorities

March 26, 2003

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I. RESPONSE OF THE AUTHORITIES

The IMF technical assistance mission that visited our country from January 16-31, 2002 provided us with its report on the observation of standards and codes concerning the data module. The authorities have taken note of the recommendations made by the IMF and wish, in this regard, to explain the progress that has been made since the mission, the measures taken or planned, and the projects underway to remedy the weaknesses in the national statistics system.

A. National Accounts and Price Indices

(Response from the Statistics Directorate)

A.1. The reform of the national accounts and production of statistical indices

The Statistics Directorate, part of the Department of Economic Forecasting and Planning, has adopted a long-term strategy for upgrading the national statistics system. As part of this effort, it has undertaken to reform national income accounting and certain statistical indices

A.1.1. National accounts

A reform of national accounts was undertaken in light of the time that has elapsed since the base year currently in use, and in recognition of the United Nations' recommendation to begin using the new world national accounts standards (*1993 SNA*).

To this end, the Statistics Directorate has been engaged since 1998 in a wide-ranging statistics program involving, in particular, statistical surveys of a structural nature, including:

- Structural surveys of enterprises with accounting data.
- Survey of the informal sector.
- Expansion of the scope of the rural employment survey.
- Household living standards survey.
- Survey of general government investments.
- Household expenditure survey.
- Economic census designed to establish a directory (*répertoire*) of enterprises and establishments.

The Directorate has also taken steps with businesses and the ministerial departments to develop cooperation in the production of statistics, to meet the needs of national accounts.

To date, the following tasks have been accomplished as part of this reform:

- Training of Statistics Directorate personnel in the use of *1993 SNA* (training in Morocco and abroad).

- Definition of information needs.
- Technical development and field application of statistical surveys.
- Establishment of classifications consistent with those in use at the national and international levels, to meet the national income accounting needs.
- Study of the institutional and regulatory situation to determine the components of the national economy.
- Establishment of relations with other accounting systems (enterprises, government, balance of payments, etc.).
- Establishment of methodological and organizational procedures appropriate to the computer tools in use, and in particular the ERETES software, for preparing the new national accounts.
- Preparation of the national accounts data for 1998, which has been selected as the new base year.

The first stage of this work has produced provisional results for the new base year 1998. These results are presented in the form of accounts and summary tables on:

- Goods and services accounts (100 products).
- Output and operating accounts by branch of activity (36 branches).
- Source and use tables (36 branches).
- Complete sequence of operating accounts for institutional sectors.
- Table of integrated economic accounts.
- Table of financial operations (TOF).

The results shown in these accounts and tables will be finalized after the new series of national accounts (1998–2002) is completed toward the end of 2003.

These results have been made available to users to enable them to undertake urgent analytical tasks such as simulation and impact studies as well studies of the structure of output and the behavior of economic agents.

The old series of national accounts (base year 1980) will remain in effect until the new series is published, so that trends can continue to be analyzed.

The summary tables will be supplemented by other tables, including the social accounting matrix.

The goods and services accounts will be extended to cover nearly 300 products, and the industry accounts will be extended to about 100 branches.

These accounts and tables will be prepared annually, except for the social accounts matrix, which will be produced periodically in light of analytical needs.

The following results will be published:

- Provisional results for the preceding year (t-1).
- Semi-definitive results for the year (t-2).
- Definitive results for the year (t-3).

The following is the schedule for upgrading the national accounting system:

a. Base year 1998:

The remaining work on 1998 will be completed before end-January 2003.

b. Current years:

- 1999 accounts (definitive): fourth-quarter 2002 and first-quarter 2003.
- 2000 accounts (semi-definitive): second-quarter 2003.
- 2001 accounts (provisional): third-quarter 2003.
- 2002 accounts (provisional): fourth-quarter 2003.
- Establishment and publication of methodological reports and the national accounts series for 1998–2002, beginning in early 2004.

A.1.2. Statistical indices

Statistics Directorate has adopted a medium and long-term plan of action involving a series of reforms to existing indices and the design of new indices.

During 2003 and 2004, the consumer price index (CPI) will be completely overhauled. Preliminary data from the household consumption and expenditure survey conducted in 2000–2001, which will be available in the next few months, will be used. Meanwhile, the weighting structures for calculating this index have been updated starting from January 2002, using data from the household living standards survey of 1998–1999.

The overhaul of the CPI will involve:

- Upgrading the weighting structures.
- Expanding the geographic scope of the index.
- Revising the basket of goods and services.
- Updating the sample of observation points.

With respect to other statistical indices, two reforms are underway, concerning the industrial, energy and mining output index (IPI) and the foreign trade indices.

These reforms, the first results of which are expected in the course of 2003 (for the foreign trade indices) and in 2004 (for the output indices) are designed to meet the needs of different users, and in particular the national accounting system. The year 1998 was selected as the base year for these indices, to make it consistent with that of the national accounts.

The reform of the IPI consists of:

- Updating the base year.
- Adopting new weighting coefficients.
- Updating the samples of products and observation points.
- Adopting the new economic activities classification.

The foreign trade indices have been undergoing a significant revision for more than a year. They will be prepared quarterly by branch of activity, in accordance with the new classification, and by use group.

The Statistics Directorate's action plan also calls for periodic revision of other indices. This will involve subsequent reforms to the price indices for industrial, energy and mining production and the wholesale price index for agricultural products, for which the base year is currently 1997.

This action plan also calls for the development of new indices such as those relating to business turnover, prices of capital goods, and wages and salaries, beginning in 2005.

At the same time, research is continuing into other aspects, relating in particular to data quality and the methods for data collection and the construction of indices.

A.1.3. Statistical coordination

Given the importance of ready access to data for all ministries in general, and for the Ministry of Finance and Privatization in particular, all partners are being asked to cooperate with the Statistics Directorate to facilitate the production and publication of complete national accounts results, within fixed deadlines.

In order to overcome obstacles that could impede the flow of this work, as well as other statistical projects, the Department of Economic Forecasting and Planning has prepared a draft law on the National Statistical Information Council (CNIS), and a draft law on the directory and single identifier system for businesses and economic establishments. These two draft laws are currently being studied for application.

Other draft laws are being prepared, including one to create a national accounting commission. These measures will serve to eliminate many obstacles, to control expenditures, to gain time in the data collection process, and to instill new dynamism in the national system of statistical information in general, and in the national accounting system in particular.

A.2. Implementation of IMF recommendations

The Statistics Directorate (DS) of the Department of Economic Forecasting and Planning has already begun work on implementing the recommendations of the IMF mission of January 16–30, 2002, concerning the real sector.

A.2.1. Short-term recommendations

A.2.1.1. Quarterly statistics on wages and salaries

A working group has been set up to study the various statistical sources on wages and salaries, and to contact the departments that hold information of this kind. The objective is to introduce a quarterly data collection and dissemination system on wages and salaries by end-2003. Initial contact was made on December 18, 2002, with the National Social Security Fund (CNSS).

A.2.1.2. Industrial output index

The authorities are currently examining the possibility of calculating this index on a monthly basis. The Statistics Directorate is requesting technical assistance from the IMF to examine the feasibility of this proposal.

A.2.1.3. National accounts

- The principle of reducing the time lag for publication of the quarterly national accounts from 10 days to bring it into line with the SDDS will be adopted.
- The reform of the national accounts will be pursued: it will be completed toward end-2003, and the results as well as the methodologies adopted will be published at the beginning of 2004.
- In terms of developing a directory of firms and establishments, the Statistics Directorate has begun receiving advice and observations from various departments concerning the draft law for creating this directory.
- Data from the household expenditure survey are now being refined.

A.2.1.4. Producer price index (PPI)

The PPI has already been posted on the Statistics Directorate's website.

A.2.2. Medium-term

A.2.2.1. Structural surveys

The DS has adopted a long-term plan of action (2002–2012) to produce a set of structural surveys with a periodicity of five years. The first surveys of this kind will be conducted in 2005 and 2006 (pertaining to the business year 2005).

A.2.2.2. Consumer price index (CPI)

Over the medium term, a continuous system for updating products and weightings will be implemented in light of data from the national accounting system and from the household living standards and consumption surveys planned as part of the Statistics Directorate's long-term action program.

B. Government Finance Statistics

(Response from the Ministry of Finance and Privatization)

Regarding conformity with the GDDS, and with the prospect of conforming to the SDDS, the ministry is planning to expand the field of coverage of government finance statistics to include local governments, public administrative establishments, and pension and social security agencies. In this context, meetings are scheduled with the General Treasury of the Kingdom, the Directorate of Public Establishments and Participations, and the Directorate of Budget, in order to define information circuits and procedures for consolidating government finance statistics.

0. Prerequisites of quality

The Financial Situation Committee (*Comité de Conjoncture Financière*) holds regular meetings at the Directorate of the Treasury and External Finance, with representatives of the major directorates concerned with the government finance statistics. These meetings provide an opportunity for reconciliation, cross-referencing and coordination of statistical information.

However, in order to make the staff familiar with the new rules and standards for compiling government finance statistics, our department is hoping to take advantage of training sessions on this subject that the IMF might provide.

1. Integrity

A methodological note on the preparation of government finance statistics will be produced by the Directorate of the Treasury and External Finance during the first half of 2003.

2. Methodological soundness

For operations of the Hassan II Fund for Economic and Social Development, Morocco wishes to continue the current statistical treatment whereby operations of this fund are considered like those of other public establishments, while awaiting completion of the project now underway for consolidating the operations of public establishments with those of the central government (*Etat*).

With respect to statistics on the domestic debt, the possibility of expanding their scope of coverage is under consideration.

3. Serviceability

The new configuration of the Economic Situation Report (*Note de Conjoncture*) published by the Directorate of the Treasury and External Finance, which dates from the beginning of 2002, provides both cumulative and monthly data on government finances. It also includes details on financing.

4. Accessibility

In terms of the variety of presentations and the difficulties that this creates for users, meetings are scheduled with the various departments that publish statistics on government finance in order to harmonize the presentations and make them easier for users to deal with.

Contact information (name, address, telephone, fax and e-mail) for the person in charge of the Economic Situation Report will be published shortly.

C. Balance of Payments

(Response from the Foreign Exchange Office)

0. Prerequisites of quality

Lack of a legislative basis for compiling and disseminating the balance of payments

The Foreign Exchange Office has submitted draft legislation that would give it the legal basis needed for preparing and publishing statistics on foreign trade and the balance of payments.

Despite the lack of such a basis, the Foreign Exchange Office is taking the necessary steps to implement mechanisms for collecting information directly from economic operators. For example, the Office does not limit itself to Customs data and information from the exchange control regime. The information diversification effort that was initiated some years ago is intended to prevent the loss of information due to liberalization of the exchange system.

1. Integrity

Too little information published about policies and practices used in the Office's statistical work.

The major statistical publications of the Foreign Exchange Office contain methodological notes on the way foreign trade and balance of payments statistics are compiled. The new version of the Office's website, designed to meet the requirements of the Special Data Dissemination Standard, will carry more detailed notes on the agency's statistical mission.

2. Methodological soundness

Further steps in implementing the recommendations on scope, classification, and basis of recording.

These recommendations relate to three aspects:

-Determining changes in reserve assets by excluding the effects of exchange rate fluctuations

- This recommendation was implemented during the course of 2002.

-Variations in assets and liabilities of deposit banks

- This variation will in future be excluded from reserve assets, and included under the heading "other investments."

-Integration of free zones and offshore banks

- The Foreign Exchange Office has begun work to integrate commercial transactions by operators installed in the industrial free zones into the foreign trade statistics as of the year 2002. This integration will be extended to other transactions as of 2003. As concerns offshore banks, they are considered as resident entities in the draft legislation on statistical reporting.

3. Accuracy and reliability

Conduct regular review studies to reinforce the methods for preparing provisional estimates.

The Foreign Exchange Office will implement a new policy for reviewing data, as of 2003. This will involve publishing three types of data only: provisional, updated and definitive data.

An explanatory note on the new policy will be available to users over the website. As well, the new version of the site will carry a publications calendar that will specify the dates for publication and updating of data.

4. Serviceability

Lack of consultation with users of balance of payments statistics and no policy for reviewing data

The Foreign Exchange Office has adopted a new communications strategy for better identifying the needs of balance of payments statistics users. A user survey is now underway, and questionnaires have been sent to different categories of users in order to have better knowledge of their expectations.

The new data review policy will take full account of the observations on this point.

5. Accessibility

-Publications provide only cumulative quarterly data.

-The methodological indications published are not sufficiently detailed.

-No advance release calendar.

The balance of payments publications for the year 2002 provide both quarterly data (January to March, April to June, etc.) and cumulative data. The new version of the website will carry detailed methodological notes and a data release calendar.

II. RECOMMENDATIONS

Short-term

- Establish the overall external position

- The Foreign Exchange Office has included this project in its strategic action program for 2003.

- Reduce the time lag in publication of the balance of payments to three months

- This recommendation is being implemented.

- Data on external assets should be classified and allocated in accordance with the BPM5

- The change in banks' external assets and liabilities will now be recorded under the heading "other investments." The effect of exchange rate variations will continue to be deducted for calculating the change in reserve assets.

Medium-term

- Secondary data sources should be used to validate the balance of payments results

- This recommendation has been well taken for implementation over the medium term.

- Improve the scope, classification and evaluation of balance of payments transactions

- The IMF mission's recommendations on this point are consistent with the concerns of the Foreign Exchange Office, which has made them part of its strategic action program. Objectives in this area will be met through cooperation with the European Union statistical authorities (Medcomext program and trade in services), and with the Bank of France (preparation of the balance of payments and the external position).

- Participation of agents of the Research and Balance of Payments Division in IMF methodological seminars on the balance of payments.

- The Foreign Exchange Office is requesting support from the Statistics Department for applications that it plans to submit to the IMF Institute so that its staff can participate in balance of payments seminars.

INTERNATIONAL MONETARY FUND

MOROCCO

Detailed Assessments Using the Data Quality Assessment Framework (DQAF)

Prepared by the Statistics Department

Approved by Carol S. Carson and George T. Abed

March 26, 2003

This document contains a detailed assessment by data sets of the elements and indicators that underlie the data quality dimensions reviewed in Morocco's Report on Observance of Standards and Codes (ROSC)—Data Module. Also included as appendices are a background presentation of the General Data Dissemination System (GDDS) and the Special Data Dissemination Standard (SDDS), the generic framework used in assessing the quality of macroeconomic statistics for Morocco, and the results of consultations with statistics users.

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ACRONYMS

<i>1984 Guide</i>	<i>Guide to Monetary and Banking Statistics published in International Financial Statistics (1984 Guide)</i>
<i>1968 SNA</i>	<i>System of National Accounts 1968</i>
<i>1993 SNA</i>	<i>System of National Accounts 1993</i>
BIS	Bank for International Settlements
<i>BPM5</i>	<i>Balance of Payments Manual, fifth edition</i>
BTP	Bâtiment et travaux publics [Construction and public works]
CIF	Cost, insurance, freight
CCF	Comité de Conjoncture Financière [Financial Situation Committee]
CEN	Caisse d'épargne nationale [National Savings Bank]
CGED	General Comptroller of Expenditure Commitments – MEFPT
CMR	Caisse marocaine de retraite [Moroccan Pension Fund]
CNIS	Conseil national d'informations statistiques [National Statistical Information Council]
CNOPS	Régime de santé des fonctionnaires [Health Insurance System for Public Employees]
CNSS	Caisse nationale de sécurité sociale [National Social Security Fund]
COCOES	Comité de Coordination des Études statistiques [Statistical Studies Coordination Committee]
COFOG	Classification of the Functions of Government
COICOP	Classification of Individual Consumption by Purpose
CPC	Central Product Classification
CPI	Consumer Price Index
CST	Special Treasury Accounts
DBCC	Department of Budget and Central Control (Bank Al-Maghrib)
DCEC	Department of Credit Institutions Control (Bank Al-Maghrib)
DE	Research Department (Bank Al-Maghrib)
DEM	Division of Monetary Research, DE (Bank Al-Maghrib)
DEPG	Directorate of Economic Policy
DEPP	Directorate of Public Establishments and Participations
DI	Computer Services Department (Bank Al-Maghrib)
DQAF	Data Quality Assessment Framework
DS	Directorate of Statistics
DSBB	Dissemination Standards Bulletin Board
DTFE	Directorate of the Treasury and External Financing
ECM	Household consumption and expenditure survey
ENV	Standard-of-living survey
EPA	Public Administrative Establishments
EPIC	Public Industrial and Commercial Establishments
ERE/TES	Source-use equilibrium, input-output table (Computerized module/tool for compiling the National Accounts)
FOB	Free on board
GDDS	General Data Dissemination System
GDP	Gross Domestic Product
GFCF	Gross Fixed Capital Formation
GFS	Government Finance Statistics
<i>GFSM 1986</i>	<i>A Manual on Government Financial Statistics 1986</i>
<i>GFSM 2001</i>	<i>Government Financial Statistics Manual 2001</i>

<i>GFSM</i>	<i>Government Financial Statistics Manual</i>
<i>GFSY 2001</i>	<i>Government Financial Statistics Yearbook 2001</i>
IAS 2000	International Accounting Standards
ICV	Cost of living index
ILO	International Labor Organization
IMF	International Monetary Fund
INAC	National Economic Analysis Institute
INSEA	National Statistics and Applied Economics Institute
INSEE	National Institution of Statistics and Economic Studies – France
ISIC	International Standard Classification (by industry) of all economic activities
ISO 9000	International Organization for Standardization
ISWGNA	Inter-Secretariat Working Group on the National Accounts
ITRS	International transactions reporting system
MEDSTAT	Euro-Mediterranean Statistical Cooperation Program
MEFPT	Ministère de l'Économie, des Finances, de la Privatisation et du Tourisme [Ministry of Economy, Finance, Privatization and Tourism]
<i>MFSM</i>	<i>Monetary and Financial Statistics Manual (IMF 2000)</i>
MICME	Ministry of Industry, Trade, Mining and Energy
MPEP	Ministère de la Prévision et du Plan [Ministry of Economic Forecasting and Planning]
MRA	Moroccan nationals residing abroad
NMAE	Nomenclature marocaine d'activités économiques [Moroccan Classification of Economic Activities]
NMP	Nomenclature marocaine des produits [Moroccan Products Classification]
NPISHs	Nonprofit Institutions Serving Households
OC	Office des Changes [Foreign Exchange Office]
ODAC	Organismes divers de l'administration centrale [Miscellaneous agencies of the central government]
ODC	Other depository corporations
OECD	Organization for Economic Co-operation and Development
OPCVM	Organismes de placement collectif en valeurs mobilières [finance companies]
PCEC	Plan comptable des établissements de crédit [Chart of accounts for credit institutions]
PI	Production Index
PPI	Producer Price Index
RCAR	Régime collectif des allocations de retraite [Pension regime]
ROSC	Report on Observance of Standards and Codes
SCP	Postal Checking Service
SDDS	Special Data Dissemination Standard
SDR	Special Drawing Rights (IMF)
SEGMA	Services de l'État gérés de manière autonome [autonomously managed government services] services run independently]
SNA	System of National Accounts
SPOT	Provisional statement of Treasury operations
STA	Statistics Department - IMF
TES	Tableau entrées-sorties [Input-output table]
TGR	Trésorerie générale du Royaume [General Treasury of the Kingdom]
TOFE	Tableau des Opérations Financières de l'État [Government Financial Transactions Table]
VAT	Value Added Tax

DETAILED ASSESSMENT OF MOROCCO'S SELECTED MACROECONOMIC DATASETS USING THE DATA QUALITY ASSESSMENT FRAMEWORK (DQAF)

The following detailed information on indicators of statistical practices in the areas of the national accounts, consumer and product price indices, government finance, monetary statistics, and balance of payments statistics was gathered from publicly available documents and information provided by Morocco's authorities. This information, which is organized along the lines of the generic DQAF (see Appendix II), was used to prepare the summary assessment of data quality elements, based on a four-part scale of observance, shown in Morocco's *Report on the Observance of Standards and Codes (ROSC)—Data Module*. This report was prepared by a mission from the IMF's Statistics Department that visited Rabat during January 16–30, 2002.¹

I. NATIONAL ACCOUNTS STATISTICS²

0. Prerequisites of quality

0.1 *Legal and institutional environment*

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

In accordance with Article 8 of Decree No. 2-95-148 of 26 December 1995, the Statistics Directorate (DS) is responsible for preparing the national accounts and monitoring economic performance. Practice is consistent with the law. The National Accounts and Economic Synthesis Division of the DS prepares annual and quarterly national accounts for Morocco.

The DS is the focal point of a national system of statistical information that is highly decentralized, with a variety of ministries playing key roles in producing statistics. The agency responsible for coordination and production of statistical studies is the Statistical Studies Coordination Committee (COCOES), for which the DS provides secretarial services. Various legal provisions relating to the statistical system, including those governing the exchange of data and guaranteeing the consistency of methodology and results, refer to COCOES (in particular Royal Decree-Law No. 370-67 of 5 August 1968) rather than to the DS itself.

¹ The mission team was led by Ms. Lucie Laliberté and comprised Messrs. Cornelis Gorter and Philippe de Rougemont, Msses. Florina Tanase and Beatrice Timmermann (all STA), Mr. Tim Jones (Expert), and Mrs. Anne Rousseau (Administrative Assistant, BLS).

² A major reform is underway to introduce the *System of National Accounts 1993 (1993 SNA)* and to change the base year from 1980 to 1998. The authorities expect to publish the new series in the fourth quarter of 2003.

0.1.2 Data sharing and coordination among data producing agencies are adequate

The COCOES has not been operational for some time now, and the flow of essential information between the producers of basic statistics and the DS has been interrupted. The authorities recognize this unfortunate situation.³ The DS itself has had to make contact and maintain correspondence with external data providers, while awaiting adoption and application of new statistics legislation.

The draft law calls for establishment of a National Statistics Information Council (CNIS), which will replace the current COCOES as the body responsible for coordination and communication between the principal institutions that collect, prepare and disseminate macroeconomic statistics. The CNIS will need to ensure inter-administrative coordination when it comes to using basic files and harmonized terminology. The establishment of a central statistical agency may be an option to explore.

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

Royal Decree-Law No. 370-67 on statistical studies protects the confidential nature of statistical information, and stipulates in Article 8 that “individual information found on questionnaires and relating to personal and family life and, generally, to facts and conduct of a private nature may not be communicated in any way by the depository authorities.” According to this decree, the only exception is that public agencies are expected to make statistical information of all kinds, global or individual, available to the COCOES.

The decree states: “Moreover, individual information of an economic and financial nature obtained through official questionnaires may not in any case be used for purposes of fiscal or economic surveillance or sanctions.”

The decree could be made more explicit by stipulating that in principle no individual information should be published. This remark also applies to the draft Law, which should be accordingly amended before adoption.

In polls and other statistical surveys conducted under the aegis of COCOES, respondents are advised of their obligations with respect to communicating information. They are also advised that the information they provide will be used exclusively for statistical purposes.

³ As demonstrated in the document prepared for the 1999-2003 Plan (finally adopted for 2000-2004), which states: “The COCOES, the body responsible for coordination and monitoring, does not play its assigned role. This has tended to exacerbate the separation between different bodies of the National Statistical System. Some departments prepare their strategies in isolation, without reference to the need to observe standards and to the risk of double accounting. Several statistical operations are done without coordination and without respect for official definitions, classifications and common concepts.”

According to Article 8 of Royal Decree-Law No. 370-67, the criminal code provides sanctions for officers of government agencies and organizations that serve as intermediaries for official surveys, if they fail to respect professional secrecy.

The DS has issued special aggregation rules to prevent any residual disclosure when the aggregate results from surveys or other confidential data are published. According to those rules, the responsible official must examine the data to be released to ensure that no confidential data are indirectly disclosed, and must design appropriate tables and data for publication purposes.

Within the DS, access to each respondent's data is limited to officers who need that information in the course of their duties. The offices of DS staff are locked when the official is absent. All computers are secured with passwords. The confidential nature of data is thoroughly safeguarded both during storage and at the time of destruction.

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

According to Article 9 of Royal Decree-Law 370-67, individuals and companies are obliged to provide accurate and timely responses to statistical questionnaires authorized by the COCOES. It must be remembered that the statistical system is highly decentralized, and that a large segment of statistics is not collected by the DS itself. Nevertheless, the DS, as the secretariat of the COCOES (Royal Decree 371-67 of 3 September 1968), may obtain information of any nature collected by public bodies and agencies.

In practice, actual or potential conflicts between the legal authority to produce statistics and other laws or provisions (such as those on access to information) have been resolved or overcome without jeopardizing the production of statistics. For example, good relations have been established with the General Treasury of the Kingdom,⁴ for remitting classified data under the economic code, and with the Central Bank concerning banking data. An exception is the refusal (because lack of confidence and clarity in the legal provisions) by the fiscal authorities to provide fiscal data to the DS since 1995. Access to fiscal data for statistical purposes should be pursued, as fiscal data potentially provide a very useful source to validate other information and/or to reduce respondent burden.

Royal Decree-Law 370-67 on statistical studies provides sanctions for refusing to supply information and for responding late. The sanctions call for fines that today would be considered insignificant. The decree does not contain any provisions for inspecting respondents' books and accounts, premises or inventories to obtain required information that they have failed to supply.

⁴ In relation with the General Treasury of the Kingdom, it has been promised to introduce the economic code in the expenditures and the receipts beginning with the fiscal year 2001.

The DS takes into account the workload involved in requiring respondents to provide data. The workload for respondents is test-measured on a sample group before the final versions of the questionnaires are issued. In some cases, the DS will help respondents to complete and transmit the forms (for example by appointing an interlocutor).

The DS seeks to enlist the cooperation of respondents by sensitizing them, for example through television promotion of the major surveys such as the population census, or pointing to the key results of a previous survey when introducing questionnaires, or providing information requested by respondents.

0.2 Resources

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

In its first years of operation, the National Accounts and Economic Synthesis Division has increased its staff considerably, and now has about 50 people including 8 statisticians, 18 statistics application experts, 4 administrators, 3 assistant administrators, 5 technicians and 12 support staff. The division includes six units, of which the quarterly accounts calculation and economic modeling unit has 3 officers and a technician, which appears few in light of its responsibilities.

Staff are well trained in the national accounts area. Most officers have received training at the National Statistics and Applied Economics Institute (INSEA), and economists are occasionally hired. Staff attend courses, seminars and international workshops on national accounts methodology.

The incentives structure is that of the public service, in terms of promotion and career advancement. Nevertheless, the DS has trouble keeping highly trained personnel because salary levels are higher in the private sector, and some other agencies in the public service offer better benefits.

Implementation in February 2001 of the ERE/TES module for preparing the accounts presupposed a microcomputer for each officer, which means a need for an additional eight devices. This module was recently introduced as part of Euro-Mediterranean Statistical Cooperation Program (MEDSTAT) cooperation, and bilateral cooperation with INSEE in France. The SAS software, which was used to produce the quarterly accounts since 1997, is no longer available. The DS has plans to replace it shortly by the EVIEWS software, but in fact there has been a considerable delay in constructing the quarterly accounts (in January 2002, the latest estimates referred to the first quarter of 2000). To resolve this problem the SAS will be reintroduced shortly.

In general terms, however, the software programs used for compiling and analyzing statistical series are considered well suited to existing and potential tasks.

Under the current five-year plan, the authorities have agreed to a significant increase in statistical resources. Thus, staffing levels for the DS central services have been sharply increased in just a few years, and now stand at around 850.

There is no budget specifically earmarked for the national accounts. It is possible that a special budgetary item for the national accounts will be created as part of the reorganization of the Ministry of Economic Forecasting and Planning (MPEP), where the National Accounts and Economic Synthesis Division could be raised to the status of a directorate. Nevertheless, the fact is that financial resources earmarked directly or indirectly for national accounts work represent a significant part of the DS's funding, highlighting the importance that the authorities attach to these statistics.

0.2.2 Measures to ensure efficient use of resources are implemented

The DS prepares its annual budget as a function of the various statistical operations programmed. For each operation, expected expenditures are broken down by category. Adjustments are made in cases of slippage.

While the concepts and methodologies used by the DS are consistent with those of the national accounts, the decentralized statistical system creates coordination problems that are affecting efficiency. This is particularly true of the current lack of an inventory of national businesses with individual identification. The DS has launched major operations, such as the economic census, to deal with this problem.

0.3 Quality awareness

0.3.1 Processes are in place to focus on quality

Quality is a major concern of DS managers, and one that is shared by the entire professional staff. It extends from the recruitment of personnel qualified for the tasks at hand, to close monitoring of data gathering and careful editing of publications for clarity.

The Moroccan technicians are concerned about data quality. Nevertheless, the DS has not introduced specific quality-focused methods such as total quality control or those of the International Organization for Standardization (ISO 9000). For instance, the DS could extend the scope of data quality with data users, by making them aware, among other things, of the importance of the various quality aspects of statistical production.

On the other hand, the DS has launched, and largely completed, an impressive program to promote economic statistics. Among the significant operations recently undertaken were the structural surveys of businesses, the economic census, a new household consumption survey and a survey of informal establishments. The DS program also calls for significant improvements in the annual surveys, such as those for measuring construction and public works (BTP), commerce and business services.

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

Procedures are in place for examining the quality of statistics, particularly in the context of collecting them. Internal technical committees are constituted for conducting statistical surveys. The National Accounts and Economic Synthesis Division plays an important role in detecting quality problems. Within the ministry, several one-day seminars have been organized to stress the importance of different aspects of quality. No formal methods have been introduced, however, for quality control, such as the total quality concept or ISO 9000.

There is no separate body for providing advice on the quality of statistical series or on strategies for improving the production of data. The fact that the COCOES, which could serve as such a body, has been inactive is not entirely due to the DS. According to the new statistical legislation proposed by the DS, the CNIS will have to take on the duties of a surveillance body.

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

DS management recognizes that there are trade-offs to be made between the various dimensions of data quality (for example, between timeliness on one hand and accuracy/reliability on the other), and improving data quality is a primary consideration of the long-term work program.

There is no formal mechanism for informing statistical users of the importance of these trade-offs or for taking their points of view into account. Since 1997, the DS has held a series of open houses to inform the general public about the concepts and methods used, and about the importance of having high quality statistics. It has also programmed media events for publicizing these concepts and methods.

There are no regular surveys of users to determine their opinion about data quality questions. A commission (National System of Economic, Social and Planning Information), which is set up for preparation of the five-year economic and social development plan, currently constitutes the only mechanism for dealing with emerging data needs. Plans call for the CNIS to define statistics production needs periodically.

1. Integrity

The expression “statistical program” refers to the national accounts statistics program, and the expression “statistical series” means all the data series produced for the national accounts statistics.

1.1 Professionalism

1.1.1 Statistics are compiled on an impartial basis

The DS compiles the national accounts statistics on a thoroughly impartial basis.

The DS indicated that it is not subject to any outside interference or pressure in the process of compiling and disseminating the national accounts. However, there is no provision in the statistics law guaranteeing the independence of the statistics agency (which since 1998 has been placed under the MPEP. The director of the DS is appointed by royal decree and can be removed from his duties only by another royal decree. Other senior staff of the DS (division and unit heads) are appointed by ministerial decision on the recommendation of the DS director.

Professional competence plays a determining role in recruitment and internal promotion decisions. Management positions are held primarily by graduates of the INSEA, which enjoys a high reputation.

The DS seeks to promote professionalism by encouraging its staff to attend seminars, conferences and meetings with other professional groups. Some officers have been selected for additional training. However, it is only rarely that a staff member will publish an article in a scientific review, although managers often write articles under their own name for the *Cahiers de la Direction de la Statistique* [“Journal of the Statistics Directorate”], and they occasionally present papers at conferences and may also give statistics courses.

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

The choice of source data (for example, among surveys and between surveys and administrative records) and of statistical techniques (for example, data treatment and validation techniques) is based exclusively on statistical considerations.

Statisticians are encouraged to explain the reasons for their methodological choices in documents that are made public. For example, articles on the quarterly calculation of accounts and on the method of evaluating value added in the agriculture sector can be found in the “Journal of the Statistics Directorate.”

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

The DS strives to inspire confidence in its work by publicizing, through the media and other means of communication, its comments on erroneous interpretations or misuse of statistics. It tends to react to any misuse of statistics by providing explanatory documentation and explanations, through the press for example.

1.2 Transparency

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

The conditions governing the collection, compiling and dissemination of statistics for the national accounts are fixed by royal decrees, which are accessible to the public.

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

The DS has indicated that governmental officials have no access to data before their release. One incident was related by the DS to demonstrate this practice. After receiving an urgent request from a ministry to provide certain key figures earlier than the date initially planned, the director of the DS immediately issued a press release making the figures public on the same day.

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

Published data are clearly identified as the product of the DS. In the case of joint publications, the portion attributable to the data-producing agency is identified. The DS insists that when its statistics are quoted or reproduced, the source must be cited. When a breach of this rule is confirmed, the DS contacts the institution or person involved: this happened recently in the case of a publication by another ministry.

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

When there are major changes in methodology, source data or statistical techniques, these are often notified in advance (for example in the form of a press article, or a presentation for major users), but such information could be provided in a more formal way, or indicated in current publications.

1.3 Ethical standards

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

Although they are planned, there are as yet no general written directives defining the procedure to be followed by an agency or its personnel in the case of conflict of interest.

However, the instruction documents for each data collection exercise include instructions on this point. As well, there are clear practices in place defining ethical considerations for staff in their work (for example, with respect to preventing misuse or erroneous interpretation of statistics). DS managers have a reputation for enforcing ethical standards, and this helps to ensure their autonomy from political interference.

Managers recognize that they must set a good example, and they are careful to follow the rules. New employees, upon arrival, are made aware of the rules during a meeting with the director. Staff are regularly reminded of these rules, particularly during the conduct of operations. Staff members who do not act in accordance with these rules are dismissed.

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

Annual and quarterly statistics for the national accounts are based on the standards and recommendations of the *System of National Accounts 1968 (1968 SNA)*. Steps are underway to adopt the *1993 SNA*.

2.2 Scope

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

While the DS applies the rules that the Inter-Secretariat Working Group on National Accounts (ISWGNA) identified for applying the *1993 SNA* to Morocco (recalling that Morocco's national accounts follow the recommendations of *1968 SNA*), it is clear that the tables and accounts do not cover all the elements considered as "the essential minimum." Specifically, annual expenditures in the makeup of GDP are not available at constant prices. On the other hand, the DS publishes several national accounts statistics that are merely recommended by the ISWGNA, such as quarterly GDP at current prices and at constant prices by type of activity.

The range and level of detail of published data are often limited. Institutional sector accounts are not regularly compiled for all the sectors: they are available for government sectors (1980–1990), financial institutions (1980–1995), and the rest of the world (1980–2000). No financial accounts are compiled.

An input-output table was constructed for 1980 and updated for 1985.

Economic activity includes territorial enclaves located in the rest of the world and employees working for a portion of the year in another country. On the other hand, free zones and

customs warehouses/factories used by offshore firms under customs control are not included. Discussions are underway with the customs department to include free-zone activities in the national accounts, after the reform.

The definition of production and asset boundaries are consistent with *1968 SNA* criteria.

2.3 Classification/ sectorization

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

The classification systems used are consistent with international standards. Currently, the accounts are still based on the version of the Moroccan classification of economic activities that is an extension of the ISIC⁵ Revision 2. Since 1998 the DS has been using the classification based on ISIC Revision 3. The Moroccan products classification (NMP) is consistent with international classification. While not yet official, it has been provided to users, and will be integrated in the upcoming overhaul of national accounts. COICOP⁶ and the COFOG⁷ have been used in the context of a regional study, but regular publications contain no breakdown of data according to these classifications. To date, it has been considered impossible to make separate estimates for nonfinancial corporations and households (except for the base year and manufacturing industries in terms of output).

2.4 Basis for recording

2.4.1 Market prices are used to value flows and stocks

The valuation rules used for recording flows and stocks are consistent with *1968 SNA* criteria. Market output is valued at the factory gate, with all indirect taxes including VAT from the time of its introduction in April 1986.

2.4.2 Recording is done on an accrual basis

Generally speaking, transactions and flows are recorded on an accrual basis. However, government transactions and transactions deriving from the balance of payments are recorded respectively on the basis of cash flow accounting and settlement.

⁵ Standard International Classification, by Industry, of All Economic Activities.

⁶ Classification of Individual Consumption by Purpose.

⁷ Classification of the Functions of Government.

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

Transactions between establishments of the same firm are recorded on a gross basis when the statistical information so permits.

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

There is as yet no national inventory of producing units. The existing files are designed in different departments of the country, for administrative reasons, and they do not necessarily meet the broader needs of macroeconomic statistics (their content and structure may differ substantially). As a general rule, these files are limited to units of significant size and they are not regularly updated. Tax records are most commonly used for coverage purposes (the fiscal data themselves have not been made available since 1995). There is a registry of establishments paying the business tax. Another file contains all corporations, i.e., businesses that are subject to corporation tax and that are obliged to register their accounts. Among individuals (subject to income tax as professionals), some are also supposed to file their complete accounts. Others may have to report only certain figures on their revenues and expenditures, and still another category relates to people who pay a flat tax on their income. Employment surveys attempt to capture people not shown on the records. For the manufacturing industry, the administrative records maintained by the Ministry of Industry, Trade, Mining and Energy (MICME) are very important.

An economic census now underway involving the participation of several ministries will serve to establish an inventory of businesses that is more exhaustive and can be updated, and that can therefore be used as a sampling basis.

With respect to population and households, there is a master sample that has been in use since 1994 (when the last general population and housing survey was conducted).

A program of regular, structured surveys of businesses is shown in the five-year economic and social development plan. A portion of this program is now underway.

However, the national accounts are currently based on a number of records that are not always of good quality. Agricultural output is calculated at the national level by product for all sectors. There are serious shortcomings in the accounting statistics of nonfinancial enterprises.

The following table shows the principal data sources for the annual national accounts and their coverage, by branch of activity:

Main sources for the annual estimates		
Production approach		
Branch of activity	Principal data sources	Assessment of coverage
Agriculture, forestry and fisheries	-information on agricultural and forestry products and livestock from the Ministry of Agriculture, Rural Development and Waters and Forests. -information on fisheries provided by the National Office of Fisheries	Good
Extractive industries	-reports of the Office Chérifien des Phosphates. -activity reports (administrative declarations and accounting documents) of the MICME. -information on gross annual output of oil and gas, provided by the MICME -weighting coefficients for 1980 for quarry production trends.	Good (except for sources on quarry output, which are inadequate)
Energy and water	-information on each oil product or derivative provided by the MICME -information provided by the National Electricity Office and the National Drinking Water Office	Good
Manufacturing industries	-annual survey by the Ministry of Trade and Industry -various specific statistics on quantities and prices	Satisfactory
Construction of public works	-central government budget -financial statements of public enterprises -construction permits	Unsatisfactory
Transport and communications	-reports from the National Transport Office, National Railways Office, Compagnie Marocaine de Navigation, National Ports Office, Royal Air Maroc and Maroc Telecom	Satisfactory
Financial institutions	-financial statements	Good
Other commercially traded services	-technical coefficients -survey of tourist bed-nights -number of urban housing units -employment survey -resident population trend	Unsatisfactory

Main sources for the annual estimates		
Production approach		
Branch of activity	Principal data sources	Assessment of coverage
Government	-documents provided by the Ministry of Finance	Good
Nonprofit institutions serving households	Not estimated	Non-existent
Taxes and duties on imports net of subsidies	-documents provided by the Ministry of Finance	Good
Expenditure approach		
Category of expenditures	Principal data sources	Assessment of coverage
Gross fixed capital formation	-central government budget -financial statements of enterprises -external trade statistics -industrial survey results -construction permits	Satisfactory
Change in inventories	-financial statements of corporations and quasi-corporations -specific sources for cereals, livestock, mining and energy	Unsatisfactory
Final household consumption	Residual	Unsatisfactory
Final government consumption	-documents provided by the Ministry of Finance	Satisfactory
Final consumption of private administrations serving households	Not monitored	Not applicable
Imports and exports of goods and services	-statistics on foreign trade and the balance of payments compiled by the Foreign Exchange Office (OC)	Good

The price statistics used in compiling the national accounts include the monthly consumer price index (CPI), the quarterly producer price index (PPI) and the monthly unpublished wholesale price index (for farm products and construction inputs).

Household surveys are not conducted on a regular basis, except for the continuous national employment survey. This survey provides quarterly indicators, level and characteristics of activity, employment and unemployment at the national level and by place of residence. The

survey covers a sample of 48,000 households each year, including 16,000 rural households. The national Household Consumption and Expenditure Survey (ECM) was conducted between April 1984 and May 1985, and was used to determine weighting coefficients for calculating the CPI. The national Survey of Household Living Standards was conducted in 1990–91, partly to update these coefficients. Another survey on household levels was conducted in 1998–99. A household consumption survey was conducted between October 2000 and October 2001.

The scope of the household surveys covers all regions and all occupational and social categories. The sampling techniques used in the methods for calculating gross amounts are appropriate. Cases of nonresponse are followed up by substitutes or suitable methods of imputation. The data gathered concern all purchases, production for own end use, investments and employment.

General population and housing surveys are conducted every ten years. The last population survey was held in 1994.

Government finance data include the central government budget, satellite budgets and Special Treasury Accounts, budgetary status of the General Treasury of the Kingdom (budgetary expenses and revenues), financial statements from other central government bodies, administrative accounts for the municipalities (through the Ministry of the Interior), and management accounts of the National Social Security Fund. The level of detail and the timing of the availability of data on defense spending, off-budget funds and local government could be improved.

For economic activities that are not covered by the annual (or more frequent) surveys, there are no surveys or censuses at 2- to 5-year intervals that could be taken as the basis for annual estimates for the national accounts.

Semi-annual or more frequent surveys are used to collect data on the volume and prices of mining, energy and manufacturing activities, as well as on tourism (number of bed-nights). Other quarterly data are from administrative sources.

In fact, quarterly GDP data are calculated using econometric methods that rely on annual ratios between the aggregate (value added by industry or branch of industry) and the selected indicator(s), the behavior of which is considered to be similar. The indicators used are generally for production. The following table presents the indicators used for estimating quarterly GDP, and shows clearly that the base for quarterly estimates of services is too narrow.

Sources data for quarterly estimates	
Branch of activity	Indicator(s)
Agriculture, forestry and fisheries	-No quarterly source. Annual production is allocated to quarters using a matrix for each product (prepared from results of a specific survey in 1993).
Mining	-mining output index
Energy	-output index for: solid fuels and crude oil; refined petroleum and derivatives and water and electricity
Manufacturing industries	-production index for 18 industries
Construction and public works	-value of urban construction permits -capital goods spending in the five ministries responsible for most public works
Trade (including import taxes and duties)	-synthetic indicator of commercial production and imports
Transport and communications	-tons-km and traveler-km (road)
Accommodation and food services	-number of bed-nights in hotels
Other commercially traded nonfinancial services	-rental volume index -manufacturing output indices by industry -population growth
Financial and insurance institutions	-lending to the economy
Government	-payroll

Ad hoc surveys by the DS include a 1989 survey of the degree of completion under construction permits, a 1999 survey of tourist expenditure, and a survey of the informal sector (April 1999–April 2000). A survey on tourist expenditures for 1993 was carried out by the Ministry of Tourism.

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

Most data sources are consistent with national accounts statistics needs. Since the national accountants participate in the preparation of technical documentation on surveys, the definitions and concepts used are readily adaptable to those of the national accounts. This is true not only for DS surveys but also for statistics collection by other ministries, which must be authorized by the COCOES.

Nevertheless, a few problems may be cited with respect to sources that escape DS surveillance. These problems involve, in particular, the time of recording (cash flow accounting by government agencies and sections of the balance of payments), and the reference period (calendar year as reference period for the national accounts, fiscal year for budgetary operations, and the crop year for agricultural activities). With respect to data on

government, there are sometimes difficulties in determining the correct nature of spending: differentiating gross capital formation from intermediate consumption, breaking down spending by products according to the classification in use, distinguishing different types of transfers, etc.

Moreover, the concept of consumption of fixed capital is different from that of depreciation/amortization, as recorded in the financial statements of businesses.

3.1.3 Source data are timely

In general, source data are available on a timely basis. However, there are delays in the data on transport and communications, marine fisheries, etc. Price statistics are up to date, except sometimes for agricultural products, which means that the DS has to use wholesale price indices. The timing of publication of the balance of payments could be improved for the preparation of provisional accounts.

3.2 Statistical techniques

3.2.1 Data compilation employs sound statistical techniques

Production approach

In the national accounts of Morocco, production is estimated by branch of activity, according to the Moroccan Classification of Economic Activities (NMAE). The degree of detail in the NMAE corresponds essentially to the division level of the ISIC Revision 2 classification. Though publications show a breakdown for only 12 branches, estimates are made for 32 branches at the summary level (the detailed data are available upon request). Following the reform, the DS expects to have estimates for 105 branches and some 300 types of goods and services.

Agriculture, forestry and fisheries. Production and intermediate consumption are determined by product or group of products; value added is determined as a difference between production value and intermediate consumption value. Agricultural production is recorded on the basis of harvests. Intermediate consumption is estimated using major cost categories, such as use of fertilizers by product on the basis of data on fertilizer sales to farmers.

Extractive industries. In terms of data collected by the MICME, output by product is calculated by adding the change in inventories to sales figures. The value added is determined as the difference between production and intermediate consumption of public enterprises, which represents the most important portion of these activities. An adjustment is made to produce a figure for all enterprises.

For quarrying products (primarily involving small enterprises), it is assumed that output follows the production trend of the major branches that use quarrying products, specifically

construction and public works. Volume and production value indices for quarries are calculated as weighted averages of indices for the branches considered. Weighting coefficients used are derived from the 1980 base year. Value added is assumed to track output (stable rate of value added at current prices and constant prices).

For solid fuels, the annual reports of the companies involved make it possible to calculate value added directly from information on production and intermediate consumption.

For gas and crude oil, MICME statistics are used to identify annual quantities produced. The value data are obtained by valuing quantities at producer prices. Normally, intermediate consumption is assumed to be fixed in relative terms (constant rate of value added) for the provisional year, but based on administrative data for other years.

Energy. For oil refining, information is available for each oil product on production, distribution and stockpiles, by quantity, as well as on the structure of selling prices. The production and intermediate consumption of electricity and water are estimated using information from the National Electricity Office and the National Water Office, as well as from distributors.

Manufacturing industries. For the organized sector, it is hard to obtain the information needed to determine directly value added or intermediate consumption by branch. The MICME surveys were simplified in 1983, and since then value added at current prices has been measured by estimating its components: compensation of employees, indirect taxes, operating subsidies and gross operating surplus (which is assumed to be fixed as a ratio of value added). Estimates are based on three data sources: the annual MICME survey; various statistical sources providing information on quantities produced and the distribution of output; and price statistics and the industrial production index. The value added per branch at constant 1980 prices is assumed to track production volume.

In the case of the unorganized sector, where information is inadequate, a combination of assumptions is used. One of these assumptions is the constancy of technical coefficients (rate of value added to output at current prices and constant prices). Output volume is estimated indirectly as a function of major consumption volumes, the evaluation of production of user branches, etc.

Construction and public works. Output is calculated on the basis of procurement trends for government, the major public enterprises that use these services, and other enterprises and households. These trends are determined by or through budgetary statistics, accounting data and construction permit figures. The value added at constant prices is assumed to be a fixed ratio of output. The value added at current prices is obtained as the difference between current values of output and of intermediate consumption in the branch. The latter is determined by multiplying its value at constant prices by the index of the corresponding prices.

Transport and communications. For each transport activity (road, rail and air), output and value added are either estimated directly on the basis of financial statements, or using working assumptions (such as that road transport of goods behaves similarly to public transport controlled by the National Transport Office). In most cases involving road transport, it is assumed that the behavior of value added is similar to that of output. For communications, there are complete data available, because producers are part of the public sector.

Commerce. The value of output in the commerce branch is based on an update of the commercial markup rate in effect during the base year 1980. Trends in value and in volume of commercial markups are applied to the branch's effective production, and the corresponding value added follows the same trends.

Services of financial institutions. Output and value added are calculated using information available from their operating accounts.

Other market services. Output and intermediate consumption of services to businesses are determined using the assumption that they follow the trend of the volume of production of the branches using those services (fixed coefficients). Data at current prices are obtained by applying the overall CPI.

Services to households involve final consumption of accommodation and food services, housing rental services, domestic services and other services. With respect to accommodation and food services, the current value of spending by nonresidents for such services is obtained by multiplying the volume (estimated by applying the trend in the number of bed-nights) by the corresponding price index. Spending by residents on these services consists of the total of tourist expenditure (internal tourism). The current value of these expenditures is obtained by multiplying the volume (number of bed-nights for internal tourism) by the specific CPI.

In the case of housing services, the current value of housing rental service is obtained by multiplying the volume (applying the trend in the number of existing urban dwellings) by the CPI (the rent-related component).

The current value of other services consumed by households is determined by multiplying the volume (based on population growth) by the general CPI.

Services provided by government. The value added (net) of government services is based on an examination of administrative reports. For expenditures, data from the General Treasury of the Kingdom are used, which provide more detail than treasury figures (from the Directorate of the Treasury and External Financing, DTFE). For revenues, however, the DTFE is the source.

Services provided by nonprofit institutions serving households. The DS does not currently estimate services provided by Nonprofit Institutions Serving Households (NPISHs). They are assumed to be fully integrated into the household sector.

Import taxes and duties. Information is provided by the Ministry of Finance.

In the case of quarterly GDP, the degree of detail is for 25 branches, but quarterly data are published for eight broad branches and six groups of manufacturing industries (further details are available upon request).

The approach is to estimate an annual ratio between the aggregate (value added by branch or sub-branch) and the indicator(s) (generally, production indicators) selected, the performance of which appears to be similar. This ratio is quarterized using econometric adjustments.

Note that in estimating quarterly GDP only the production approach is used for the moment.

The detail of calculations for intermediate consumption varies from one branch to the next. It is done at the disaggregated level by product or by group of products for agriculture, energy and government. The situation is less satisfactory for industry and for services, where the calculation is an aggregate for each branch. For the base year, the calculation is done at the two-digit level of the activities classification.

Too much reliance is placed on fixed ratios dating back more than five years, for most branches. This is particularly true for the manufacturing sector, construction, and all market services except transport. For transport, such resort is limited, and for agriculture, mining and government it is very limited or non-existent.

With respect to techniques for handling specific questions, note that:

Production of housing units occupied by their owners is valued at the estimated rent that would be paid for a comparable dwelling. Works in progress are restricted to those recommended in the *1968 SNA*. Adjustments for holding gains or losses are applied to the change in inventories to estimate production and intermediate consumption. If inventory data are used to estimate intermediate consumption, this is adjusted for gains/losses from the holding of inventories. Consumption of fixed capital is not estimated.

Deflators/indices are not always consistent with the variables deflated, nor are they sufficiently detailed. While appropriate price indices are used to deflate data for agriculture, mining, energy, manufacturing (the formal portion), construction and public works and government, approximations are made in other cases, particularly for services activities. Moreover, the technique used is often that of the "sole indicator" method. To calculate the volume of taxes and subsidies and the volume of commercial markups, on the other hand, the DS uses an indicator of changes in volume for the operations concerned, which is totally consistent with accepted standards.

Changes in GDP by volume are not measured using annual chain indices. The base year is not changed every five years at most, as is generally recommended.

Expenditure approach

Estimates of GDP components by category of expenditure are not all obtained independently. The method in use takes GDP by branch of activity and independent estimates for imports and exports of goods and services, gross fixed capital formation and changes in inventories.

Gross fixed capital formation (GFCF) is broken down into five categories: materials and tools, buildings, public works, livestock, and improvements and plantings. In the cases of construction/public works and livestock, GFCF is determined by output in the first case and by establishing a “source-use” balance in the second case. GFCF in improvements and plantings is estimated using costs related to the corresponding works. Estimating GFCF in materials and tools is based on establishing “source-use” balances for the base year, imports of materials and tools in the current year and domestic production adjusted for commercial markup and import taxes and duties.

The change in stocks is estimated depending on the nature of the products constituting the stocks: crops (cereals), livestock, phosphates and other mining products, crude oil and coal, and refined petroleum. For other categories of products (primarily industrial products) the change in stocks is generally estimated with information provided from financial statements adjusted for differences between commercial valuation and valuation in the national accounts.

Final household consumption is calculated as a residual at the aggregate level, because of the absence of direct sources. For the goods and services accounts, the DS publishes domestic household consumption, a concept that includes the consumption of nonresidents within Morocco and excludes consumption of Moroccans living abroad. In the use of income accounts, the residency rule is used, showing the correct final consumption expenditure of resident households.

Final consumption by government is calculated on the basis of administrative data.

Final consumption of nonprofit institutions serving households is not calculated. It is integrated with that of households.

Imports and exports of goods and services are compiled on the basis of customs information and foreign settlements, both of which are provided by the Foreign Exchange Office (OC).

Generally speaking, expenditure estimates are calculated on a highly aggregated basis. Moreover, details such as final consumption of households and government consumption are not published with a breakdown according to the categories of the COICOP or the COFOG. GFCF is calculated by type of asset. The change in inventories is calculated by the type of good.

In estimating expenditure categories, little use is made of fixed ratios.

With respect to the techniques used to resolve the occasional problems that arise in calculating GDP by expenditure category:

- Final consumption by government excludes residual sales.
- For the income accounts, spending abroad by residents is correctly included in final consumption of households and in imports, while spending by nonresidents is excluded (also correctly) from household spending and included in exports (the goods and services accounts, on the other hand, reflects the notion of consumption within the country as opposed to a residency-based consumption).

The major gap in the national accounts relates to the fact that GDP expenditure is not available at constant prices. The major reason given by the authorities is that the available price indices are not adequate. The CPI targets spending by households of moderate means and would not cover categories of products that are purchased by the general population such as is needed in the national accounts. Until recently, there was no suitable price for deflating gross fixed capital formation and the calculation of the external trade indices has not been recently conducted on a regular basis.

While making more detailed estimates and using more specific deflators could perhaps enhance the reliability of results in some cases, the techniques used by the DS to establish the annual accounts are for the most part sound. A strong point is the method for making estimates for the informal sector, using detailed employment data.

Specific techniques for compiling quarterly data

Once the most appropriate quarterly indicators have been selected for monitoring activity in the branches, the DS follows a three-stage approach.

The first stage is to make seasonal adjustments to the indicators using an internationally accepted method (X-11-ARIMA). The second stage is to “benchmark” [*étalonner*] the seasonally adjusted indicator over the annual data, i.e., to find a mathematical relationship (generally estimated using the least squares method) between the behavior of the indicator, on one hand, and the values taken as correct from the annual estimates, on the other hand. By applying this ratio to the most recent year, estimates can be made for the trend of activity in the branch in question for each quarter of the current year.

Although mathematical relationship provides a quarterly series for the period covered by the indicator, the annual total is not equal, over the estimation period, to the annual series: it differs by the regression residues. The third stage in establishing quarterly estimates consists, then, in smoothing the deviations between the annual accounts and the quarterly accounts, once the new data from the annual accounts are available. This procedure is called “calibration” [*calage*], and the DS uses an automated procedure for this. Until recently, the procedure for curve-fitting was EXPAND, using the SAS software. The national accounts managers intend to propose the BENCH software for future use, once its new version is

available, since it can handle large numbers of series and operations. BENCH, developed by Statistics Canada, has several advantages: it combines benchmarking and calibration in a single stage, the series required are not as long as those needed for the current software, and there are also advantages in the treatment of residual values.

Generally speaking, the techniques used by the DS in compiling quarterly estimates are internationally accepted.

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

Methods are in place for adjusting source data so as to improve coverage, definitions, classifications and evaluation and bring them into conformity with international criteria.

For estimating the GDP contribution of the “unobserved” economy, the DS uses a method based on the assumption that the general population and housing census provides an exhaustive picture of actual employment at the time of observation. Employers, independent workers, domestic health and apprentices are assumed to work in the informal sector as defined. With respect to paid employment, cross-referencing has been done with other relevant statistics (employment surveys, business surveys, the national social security fund, etc.) for the base year to determine the numbers employed in the informal sector. Next, value added for the sector is estimated by comparison with data on identified small businesses. For some activities, such as taxis, direct estimates are made. Housing rental services are assumed to be based in the informal sector. Thus, the GDP contribution of the informal sector (including agriculture and imputed rents) in 1980 was estimated at 45 percent. This value-added contribution has declined since 1980, at least as far as the processing industry is concerned.

Various working assumptions are used to determine trends in the different branches of industry. For the processing industries, indicators such as the volume of major inputs or intermediate and final consumption are used. Here, the rates of value added are held constant. For other branches, the informal sector’s performance is integrated into the overall trend of economic activity.

The method used by the DS in estimating informal business activities is of very high quality.

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 non-sampling error; the results of the assessments are monitored and made available to guide planning

For surveys, the DS has information on sampling errors. Nonresponse is handled by the use of extrapolation coefficients. Source data are checked at the central office and during the

collection process. Aberrant phenomena are identified and corrected, and suspect values are confirmed with the respondents.

With administrative data, such as budgetary and foreign trade statistics, accuracy is also checked on a regular basis and explanations are sought in case of doubt.

For the national accounts, source data are analyzed to correct errors. This includes checking the source data for coherence over time and coherence with other related data sources. In particular, source data are checked against the definitions for the national accounts, their evaluation principles, their reference periods and classifications.

3.4 Assessment and validation of intermediate data and statistical outputs

3.4.1 Main intermediate data are validated against other information where applicable

Given the preponderance of production-approach estimates in the current system, there is little discrepancy among the various aggregates in the national accounts. Source and use tables are not compiled for current years. GDP estimates for the base year 1980 were made through the three approaches: production, expenditure and income.

3.4.2 Statistical discrepancies in intermediate data are assessed and investigated

A systematic procedure is in place for regularly verifying any discrepancies in the intermediate data (source data adapted to the national accounts definitions and corrected for coverage gaps). These data are adjusted as necessary to eliminate discrepancies.

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

Since GDP is compiled only from the production approach, there are no discrepancies between GDP by type of activity and GDP by category of expenditure.

The DS does not attempt to validate unofficial data estimates (for example from government units, universities, nongovernment organizations or international agencies) because it has been found that the definitions and methods used in making such estimates generally fall short of the internationally agreed definitions for the national accounts, or are based on untenable simplifications.

3.5 Revision studies

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

The annual national accounts are prepared in their preliminary, semifinal and final versions. The various versions of the national accounts are revised using supplementary information as

soon as it becomes available (see the explanation offered in section 4.2.2). Revisions are made at specified dates and revised data are published in accordance with a well-established internal calendar.

For the quarterly accounts, they are revised annually after the national accounts for the preceding year have been finalized, and are calibrated to the annual accounts.

The trend and scope of revisions to successive estimates are analyzed but not normally published, unless the changes made are very significant. The results of studies and of successive revisions of estimates undertaken in the context of statistical procedures are however rarely taken into account in making estimates for subsequent periods.

4. Serviceability

4.1 Relevance

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

There is no mechanism for regular consultations with ministries nor is there any users' advisory group representing the private sector and the universities, or any opinion polling to verify whether the statistics compiled by the DS are appropriate and useful. The COCOES is supposed to meet these needs, but for the time being it is not operational. However, the DS has in recent years held an open house for users and the press, and it maintains many contacts with public service bodies on an individual basis.

As an example of the DS's active approach to involving users in its work, it prepared a document describing concepts and classifications in detail and sent it out to users for comment after the accounts were reformed.

4.2 Timeliness and periodicity

4.2.1 Timeliness follows dissemination standards

The normal lag in publishing the quarterly national accounts estimates is a little more than one quarter, which comes close to the requirements of the Special Data Dissemination Standard (SDDS). The publication lag for annual aggregates is 5–6 months after the end of the reference year, which is well within the recommendations of the General Data Dissemination Standard (GDDS).

4.2.2 Periodicity follows dissemination standards

The DS produces and publishes annual and quarterly estimates of GDP, consistent with the periodicity rules for the GDDS and the SDDS.

4.3 *Consistency*

4.3.1 *Statistics are consistent with the dataset*

Given their method of compilation, the annual statistics for the national accounts are necessarily consistent internally. The expenditure category approach is residual, and is based on the assumption that there is identity between GDP by branch of activity and GDP by category of expenditure. There are no independent estimates of financing capacity/needs (surplus/deficit) drawn from the capital account and the financing account, since the DS does not compile financial accounts.

GDP estimates at current prices, volume measures and implicit deflators are consistent with the formula “value = volume x price,” but the national accounts publications provide no information on the deflators.

Quarterly GDP estimates are made consistent with the annual estimates. While the concepts, definitions and classifications governing the quarterly estimates are identical to those used for the annual estimates, the methods used for the annual accounts are different from those used for the quarterly accounts: the latter are based primarily on an econometric approach. The discrepancies are eliminated through a least-squares procedure of calibration.

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

The DS has consistent time series, without breaks, since 1980 (the base year). To avoid breaks in the series, it has adopted a policy of avoiding changes in methodology during the period between two base years.

When the base year is changed, the DS attempts to reconstruct the series retroactively as far back as possible. When the base year is changed, the first publication using it contains an explanation of the changes and the discrepancies between the two series in terms of GDP and its major components. It does not provide details on the corrections made to maintain consistency over time.

Any abnormal change in economic trends is explained in the analysis included in the publication.

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

The national accounts statistics are broadly consistent with those for the balance of payments and government finances, since they are based to a large extent on the same sources. While the balance of current transactions on the external account balance is virtually identical to the corresponding figure for the balance of payments, there are several differences in individual items, because of definitional discrepancies. Correspondence with the government finance statistics is less clear, because of the different treatment of off-budget units, fixed capital

formation, special accounts, etc. These differences are explained to users through the series “National Accounts Documents.”

4.4 Revision policy and practice

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

The cycle for revising provisional estimates is well established and stable. It is known to regular users, but since the calendar is not published, the general public is not aware of it.

In the course of the year, the various versions of the annual national accounts are prepared as follows:

- Provisional accounts for year n.
- Semi-final accounts for year n-1.
- Final accounts for year n-2.

The annual provisional national accounts for year n are published in May of the following year. The final accounts are published in May of the third year.

The first estimates of the annual national accounts are revised at the time of estimate revisions using supplementary information relating to revisions in statistical sources or more detailed information, in particular:

- Industry surveys.
- Budgetary data.
- Statistics on the major public enterprises.
- Financial statements for businesses.

There is a stable, three-month lag in publishing quarterly GDP, unless there are computer problems or other events of force majeure.

Publication of GDP estimates takes account of the availability of the principal data sources and their schedules, but not that of the major economic policy documents (the budget base has shifted twice between calendar year and fiscal year).

4.4.2 Preliminary data are clearly identified

All publications advise users that the first data published are preliminary and subject to revision. However, the provisional estimates are not identified as such in each table.

The revised data are published in the same way and at the same level of detail as the original data.

4.4.3 *Studies and analyses of revisions are made public*

Annual revisions are not covered by explanations in the published statistical series, except where there are exceptional changes. When there are revisions relating to changes in the base year, these are made clear in the publications.

The DS generally considers it inappropriate to publish analyses and studies of the preliminary data compared to the revised data. However, publications indicate the reasons for revisions in the case of major changes. A concrete example is the explanation provided when a major change is made to estimates of fixed capital formation.

The publication relating to the last change of base year contained a chapter explaining in detail the nature and importance of the amendments made to the methodology.

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 manner of publishing the national account statistics is very clear: data are disseminated with commentaries, tables and graphs to facilitate analysis.

The main publication of the national accounts is a document entitled “National Accounts and Aggregates.” It contains sectoral GDP by volume and value, the goods and services balance, gross national income and its allocation, the capital account and the account of relations with the rest of the world. National accounts estimates are disseminated at a relatively detailed level over three years. The major publication for the quarterly accounts is a four-page bulletin entitled “Quarterly National Accounts, Sectoral Growth.” This publication also contains an analysis of the figures and graphs to facilitate their interpretation.

The national accounts are also published in other publications of the DS, in particular the following bulletins: *Repères statistiques* (monthly), *Bulletin Statistique* (quarterly) and *Annuaire statistique du Maroc, Le Maroc en chiffres* and *Chiffres clés* (annual). These publications contain short explanations for the lay reader. Finally, the tables for the national accounts, including explanatory notes, are publicly accessible over the DS website.

However, these publications provide data only for the most recent periods. A document providing retrospective data for the national accounts (since 1980) is currently being prepared.

The DS publishes printed and electronic catalogues of available information and how to obtain it.

5.1.2 Dissemination media and formats are adequate

Data are first disseminated in the form of a press release, followed by a publication in the monthly bulletin *Repères statistiques* and on the Internet, before appearing in a more complete publication.

The public has access, upon request, to recently published data and to older or more detailed time series on diskette or by e-mail. The DS provides this service free of charge, but does not advertise it.

Users do not yet have direct remote access to an electronic database, but such a service is now being developed as part of the new “statistical window,” in cooperation with Eurostat and other countries of the region.

5.1.3 Statistics are released on a pre-announced schedule

The publication schedule for statistical series is not announced in advance. However, because of the regularity with which the accounts are published, the most important users are aware of the approximate dates for the release of new data.

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

The statistical series are made available at the same time to all interested users (including the press). However, the general public may not be aware that the figures are available until they are published in paper format or over the Internet.

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

Unpublished but nonconfidential specialized tables are provided on request and free of charge. However, there is no publicity for the availability of unpublished statistics or the conditions governing access to them.

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 methodology used in preparing the national accounts is brought to the attention of users, primarily through the following documents:

- Source-use equilibrium, input-output table [ERE/TES] (1980).
- National accounts and aggregates (1980–85).
- Financial institutions accounts (1985–95).

- Government accounts (1980–90).
- Municipal accounts (1980–90).
- Accounts for relations with the rest of the world (1980–90).

Articles on the annual and quarterly accounts are also published in the “Journal of the Statistics Directorate.” These publications are fairly detailed, but they provide no explanations of the source data, such as biases in the data or the response rate to the principal surveys.

The metadata are disseminated in a readily accessible form (Internet sites, statistical publications) and the public is kept well informed. Because the base year has not changed since 1980, some publications are out of print, but they are available for consultation at the DS library.

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

Users can access different levels of detail depending on their needs, as explained under items 5.1.1 and 5.2.1.

5.3 Assistance to users

5.3.1 Contact person for each subject field is publicized

The DS offers a question-and-answer service that provides prompt assistance to users. Depending on how technical the request is, it may be routed to specialists in the National Accounts and Economic Synthesis Division.

Publications do not contain the name of a contact person for obtaining further information. However, all publications contain the postal address of the DS, as well as its telephone and fax numbers, its e-mail address and its website.

The DS also publishes a glossary under the title *Recueil des concepts utilisés par la Direction de la Statistique* [Summary of concepts used by the DS, which contains 73 pages of short definitions of the concepts used by the Directorate].

The question-and-answer service keeps a record of incoming requests. However, the DS has not surveyed users for their evaluation of the assistance offered.

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

A catalogue of publications, documents and other services is available and is updated each year. The prices of products and statistical services are clearly indicated and the catalogue is also available over the Internet. There is a help service for placing orders.

Table 1.1. Morocco—Data Quality Assessment Framework: Summary of Results for National Accounts Statistics
(Compiling agency: Statistics Directorate)

Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Practice Not Observed; SDDS = Complies with SDDS Criteria							
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			Data collection planning and coordination are weak for the National Statistics System as a whole.	A new draft law has been prepared.
0.2 Resources		X					
0.3 Quality awareness			X			There is no separate advisory body on statistical quality.	See 0.1
1. Integrity							
1.1 Professionalism		X				Major methodological changes are not formally announced in advance.	
1.2 Transparency			X				
1.3 Ethical standards		X					
2. Methodological soundness							
2.1 Concepts and definitions			X			Statistics are based on 1968 SNA.	The national accounts are being reformed (new base year and move to 1993 SNA), with target date end 2003.

Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Practice Not Observed; SDDS = Complies with SDDS Criteria							
Element	NA	Assessment				Comments on Assessment	Plans for Improvements and Target Dates
		O	LO	LNO	NO		
2.2 Scope				X		Expenditures entering into the composition of GDP are not compiled at constant prices. As well, the institutional sector accounts are not compiled on a regular basis and there is a lack of detail in the published figures.	See 2.1.
2.3 Classification/sectorization			X			Regular publications contain no breakdown of data according to COICOP and COFOG and no separate estimates for non-financial corporations and households.	See 2.1.
2.4 Basis for recording			X			Several transaction categories are recorded on a cash-flow basis. The valuation of market production includes VAT.	See 2.1.
3. Accuracy and Reliability							
3.1 Source data				X		Lack of a national register of producing units impedes estimation of the national accounts. The censuses used are outdated. There are major gaps in the current survey system and some key surveys are not sufficiently detailed.	See 2.1. Several improvements already made, including an economic census, a household spending survey and a survey of the informal sector. Five-year plan calls for improving current statistics. Inventory of businesses and establishments will be in place following the economic census.
3.2 Statistical techniques			X			Inappropriate techniques are used to estimate GDP at constant prices.	See 2.1.
3.3 Assessment and validation of source data		X					

Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Practice Not Observed; SDDS = Complies with SDDS Criteria							
Element	NA	Assessment				Comments on Assessment	Plans for Improvements and Target Dates
		O	LO	LNO	NO		
3.4. Assessment and validation of intermediate data and statistical output		X					
3.5 Revision studies				X		Results of studies and revisions are rarely taken into account in compiling data for subsequent periods.	
4. Serviceability							
4.1 Relevance			X			There is no regular user consultation mechanism.	The new statistics law calls for more contact with users through the National Statistics Information Council.
4.2 Timeliness and periodicity		X					
4.3 Consistency		X					
4.4 Revision policy and practice			X			Changes to the base year do not follow a regular sequence.	
5. Accessibility							
5.1 Data accessibility			X			The DS does not issue an advance calendar for publication of estimates.	Decision taken to begin shortly to issue an advance publications calendar.
5.2 Metadata accessibility		X					
5.3 Assistance to users		X					

II. PRICE STATISTICS (CONSUMER PRICE INDEX)

0. Prerequisites of quality

“Prerequisites of quality” on the National Accounts (Section I) also apply here with the following comments referring more specifically to the consumer price index as well as the producer price index.

0.1 *Legal and institutional environment*

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

In accordance with Article 8 of Decree No. 2-95-100 4826 December 1995, the DS is the only agency responsible for establishing and disseminating the Consumer Price Index (CPI)⁸ and the Producer Price Index (PPI) in Morocco. The Statistical Indices Division is in charge of producing them, as well as the production index (using volume data provided by producers) and the external trade indices.

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

The index is compiled from source data collected by the regional offices belonging to the same ministry (Ministry of Economic Forecasting and Planning).

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

Article 8 of Royal Decree-Law No. 370-67 of August 5, 1968 on statistical studies (B.O. No. 2011 of August 14, 1968) reads:

“...individual information ...relating ...to facts and behavior of a private nature may not be the subject of any communication by the depository authorities.

Public officials ...are subject to professional secrecy, under penalty of the sanctions stipulated in Article 446 of the Criminal Code.”

The procedures in place to prevent the disclosure of data provided by respondents are satisfactory.

⁸ Known as the “cost of living index,” or ICV, in Morocco.

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

Article 9 of Royal Decree-Law No. 3-70-67 of August 5, 1968 on statistical studies (B.O. No. 2911 of August 4, 1968) reads:

“Individuals and companies are obliged to provide accurate and timely responses to statistical questionnaires...”

No difficulties are encountered in terms of cooperation by data providers when it comes to collecting price information. Continuing efforts are made to sensitize data providers in order to obtain the necessary information.

0.2 Resources

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

The Statistical Indices Division has 26 employees (excluding enumerators or survey personnel), grouped into three sections: the price indices section, the volume and external trade indices section, and the indices methodology and design section. In all, there are four managers, 10 engineers, six technicians and analysts, and six agents. Current resources to produce the price indices may be a little tight for developments such as the rebasing of the CPI or possible extensions of the PPI.

Staff are well-trained. Most of the senior officers have received training at the INSEA. They have adequate experience and knowledge on both the practical and theoretical levels. Employees take an internal training course on price index methodology and they attend international courses from time to time, although opportunities are fairly limited.

Since 1998, the government has devoted more financial resources to the production of statistics. The division is well equipped with computers.

0.2.2 Measures to ensure efficient use of resources are implemented

Rational use is made of the resources allocated in the portion of the budget earmarked for the CPI. The accounting conventions used by the DS allow the resources devoted to the CPI to be measured.

0.3 Quality awareness

0.3.1 Processes are in place to focus on quality

Quality is a major concern of DS managers, and one that is shared by the entire professional staff. It extends from the recruitment of personnel qualified for the tasks at hand, to close monitoring of data gathering and careful editing of publications for clarity.

The Moroccan technicians are concerned about data quality. Nevertheless, the DS has not introduced specific quality-focused methods such as total quality control or ISO 9000. For instance, the DS could extend the scope of data quality with data users, by making them aware, among other things, of the importance of the various quality aspects of statistical production.

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

Data collection is well managed: staff responsible for compiling the indices supervise the price surveys and analyze the data on a frequent basis. They maintain good, if informal, contacts with users.

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

Few tools other than those mentioned in 0.3.2 are available to ensure quality in a systematic way. Examples of such tools would be: monitoring variations within observations of varieties, and a study of revisions in the case of the PPI. In planning for the reform of the CPI, it would be desirable to set up an advisory committee among the principal users.

1. Integrity

<p>“Integrity” for the National Accounts (Section I) also applies here with the following comments referring more specifically to the consumer price index as well as the producer price index.</p>

1.1 Professionalism

1.1.1 Statistics are compiled on an impartial basis

The DS compiles the price indices in a totally impartial manner. The DS indicated that it is not subject to any outside interference or pressure in the process of compiling and disseminating the price statistics. There is no provision in the statistics law guaranteeing the independence of the statistics agency (which since 1998 has been placed under the Ministry of Economic Forecasting and Planning (MPEP)). However, the director of the DS is appointed by royal decree and can be removed from his duties only by another royal decree.

Other senior staff of the DS (division and office heads) are appointed by ministerial decision on the recommendation of the DS director.

Professional competence plays a determining role in recruitment and internal promotion decisions. Management positions are held primarily by graduates of the INSEA, which enjoys a high reputation.

The DS seeks to promote professionalism by encouraging its staff to attend seminars, conferences and meetings with other professional groups. Some officers have been selected for additional training. However, it is only rarely that a staff member will publish an article in a scientific review, although managers often write articles under their own name for the *Cahiers de la Direction de la Statistique* [“Journal of the Statistics Directorate”], and they occasionally present papers at conferences and may also give statistics courses.

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

Statisticians are free to select the most appropriate data sources, in terms of quality, timeliness, cost and the information required. When establishing price indices, all decisions relating thereto are taken by statisticians.

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

The DS strives to inspire confidence in its work by publicizing, through the media and other means of communication, its comments on erroneous interpretations or misuse of statistics. It tends to react to any misuse of statistics by providing explanatory documentation and explanations, through the press for example.

1.2 Transparency

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

The conditions governing the collection, compiling and dissemination of price indices are fixed by royal decrees, which are accessible to the public.

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

The DS has indicated that the data are available on demand as soon as they are ready, before published officially.

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

Published data are clearly identified as the product of the DS. The DS insists that when its statistics are quoted or reproduced, the source must be cited.

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

When the indices are revised, any major changes in methodology are notified.

1.3 Ethical standards

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

Although they are planned, there are as yet no general written directives defining the procedure to be followed by the agency or its personnel in the case of conflict of interest. However, the procedural documents for each data collection exercise include instructions on this point. As well, there are clear practices in place defining ethical considerations for staff in their work (for example, with respect to preventing misuse or erroneous interpretation of statistics). DS managers have a reputation for enforcing ethical standards, and this helps to ensure their autonomy from political interference.

Managers recognize that they must set a good example, and they are careful to follow the rules. New employees, upon arrival, are made aware of the rules during a meeting with the director. Staff are regularly reminded of these rules, particularly during the conduct of operations. Staff members who do not act in accordance with these rules are dismissed.

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 monthly CPI for Morocco (1989 = 100) is based on internationally accepted standards, principles or practices. The concepts and definitions set forth in the revised consumer price index manual (under preparation by the International Labor Organization (ILO)) are applied in determining how to implement all the methodologies in order to construct the consumer price index. Among the choices to be made in this methodology, the Moroccan authorities intend to review the concepts and definitions used with a view to reforming the index for 2003, so as to incorporate results from the 2001 household consumption and expenditure survey.

2.2 Scope

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

The reference population for the CPI currently consists for the most part of urban households belonging to the following socioeconomic categories: mid-level managers, merchants, independent nonfarm workers, office employees and nonfarm service providers and workers. The reference population is estimated to account for 70 percent of the urban population, and nearly 40 percent of the total population. There is also an index covering the rural population, but this is not published.

In general, only market products and services are included within the scope of the CPI. In particular, imputed rents are not covered. Only actual rents paid by renters are taken into account. However, final consumption of market goods produced by households for their own use is not included. In urban areas, such products are considered to be of negligible importance.

2.3 Classification/ sectorization

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

The breakdown used in the CPI closely follows the COICOP. The DS has selected eight major categories from the 1968 SNA as “groups” and identifies 53 “subgroups” that are adapted to the country.

2.4 Basis for recording

2.4.1 Market prices are used to value flows and stocks

The prices surveyed are current prices, all taxes included, for goods and services offered on the local market. In accordance with good practices, consumption expenditures (for cost-of-living weighting) are valued at purchase cost and production for own use is valued at the equivalent market price.

2.4.2 Recording is done on an accrual basis

Recording is on an accrual basis. Specifically, goods and services are recorded in the consumption budget survey at the prices prevailing at time of purchase.

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

In accordance with international good practices, sales of used goods by households are subtracted from purchases to record the net expenditures on equipment goods.

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

There is a master sampling system for household surveys that is used for collecting data on household consumption and spending as well as for standard-of-living surveys.

In order to identify a sample for retail points-of-sale, 11 cities were selected according to the size of the reference population, the importance of retail trade and their geographic location. Each city is divided into four or five zones in order to make the sample fully representative. Points-of-sale are chosen deliberately and systematically according to the volume of commercial activity.

Household consumption and expenditure surveys (ECMs) were conducted in 1985 and 2001. There are also two, less ambitious, standard-of-living surveys (ENVs) that were conducted in 1990–91 and 1998–99. The coverage of the surveys is complete: all urban and rural localities and all regions are represented.

The selection of goods and services and their weighting for CPI purposes (1989 = 100) are based on the 1984–85 ECM. However, the weightings were updated in January 1993 with the results of the 1990–91 ENV. On the advice of a previous IMF mission, the 1998–99 ENV was not used, and work is awaiting the results of the 2001 ECM.

The selection of goods and services is based on the articles most widely sold, and efforts are made to ensure that product groups and subgroups are representative. On a deliberate and systematic basis, 385 articles and 768 varieties have been selected. About 17,000 price observations are made each month (including rents), mainly by 24 researchers who conduct direct interviews with selected retailers. Most prices are surveyed once a month, and a few every week. The complete rental sample consists of 2700 dwellings, of which one in six is surveyed each month in Casablanca and one in four each month in the other cities.

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

The source data are largely consistent with the definitions, scope, classifications, valuation and recording time required for calculating the CPI.

3.1.3 Source data are timely

Price data are obtained promptly from points-of-sale, renters and other units (electricity companies, etc.). However, the expenditure source data used for weightings are out of date. A reform of the CPI (ICV) is planned for 2003, on the basis of data from the consumption survey that was conducted between November 2000 and October 2001. In the meantime, the current mission recommends to revise the weight structure on the basis of the ENV of 1998–99.

3.2 *Statistical techniques*

3.2.1 Data compilation employs sound statistical techniques

Data on goods and services derived from the ECM are sufficiently detailed for all product classifications and for product weightings. Since the ENV sample is smaller, ENV data are not used for weightings, except for the principal categories and subgroups (please refer to the above paragraph for the recommendation to use the latter survey results while awaiting the 2003 reform).

In calculating the CPI, the formula used is the chain Laspeyres, which makes it possible to update weightings and varieties. The last update of the weightings was done in December 1992, which is the base period currently used for the calculations. Indices are constructed for each of the 11 cities in which prices are surveyed. An arithmetic average of observations during the month is first calculated for each variety. This average price is then compared with that for the intermediate base period (December 1992). As a third step, the change in the sum of these indices as compared to that for the previous month is calculated for each product, taking into account only observations from these two periods (which means that some seasonal varieties may be eliminated from the calculations). Next, the change in the weighted sum of indices for products, subgroups and groups, as the case may be, is calculated. The same weightings are used for all cities. At each level, the indices for all cities together are obtained as weighted averages reflecting the relative size of the reference population in the individual cities. Finally, these indices (which are on the intermediate base of December 1992) are re-referenced to bring them in accordance with the base year 1989.

For articles that are temporarily unavailable, the missing data are imputed using the price trend of similar products. When varieties of a product disappear permanently, they are replaced in the sample, and adjustments are made to take account of quality differences. New product varieties are included in the sample only after they show a growing market share, at which time they will replace less representative varieties. However, new products as such are not considered until the index is revised.

The formula used takes care of the problem of seasonal products, but it would be advisable to conduct an internal study on the annual variation in prices of seasonal products. The point would be to calculate growth rates for each product using annual averages from source data

as well as the chain indices. This would reveal the effect of seasonal products on the annual increase in prices. If the results are significant, they could be the subject of a special release.

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

In terms of final household consumption in the System of National Accounts (SNA), the coverage of the CPI is limited. The CPI components could nevertheless be used as deflators in the national accounts or re-weighted using other aggregates taken from household surveys. The DS also establishes an unpublished index for rural areas, based on price surveys from some 40 rural markets (souks).

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

For the household surveys the response level is higher than 95 percent. Information on sampling error is available but it is not used. Surveyors are given significant training, and the data are validated closely during internal processing in order to ensure their quality.

Source data on prices are analyzed to correct any underestimates or erroneous reporting, with particular attention to consistency over time and space, and with other information sources. Sampling errors of the CPI price collection cannot be calculated since varieties and points of sale are selected deliberately. Nevertheless, it would be desirable that the variation between the price quotes for each variety be monitored more closely than presently is the case. Nonresponses are not a problem, given the close links between surveyors and the people surveyed. A representative of the surveyors in each city visits headquarters every month. This provides an opportunity to resolve any problems that may arise.

3.4 Assessment and validation of intermediate data and statistical outputs

3.4.1 Main intermediate data are validated against other information where applicable

Not applicable. No regular price comparisons are made with other sources of information at the intermediate level. However, internal studies are conducted from time to time to compare price indices.

3.4.2 Statistical discrepancies in intermediate data are assessed and investigated

The trends of the CPI for each city are comparable with those of the overall CPI, partly due to the use of the same weighting structure in their compilation. When there are irregular

fluctuations in monthly time series they are explained in terms of the contribution of index components to variations in the index.

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

Whenever there is evidence of a potential problem the DS examines it carefully.

3.5 Revision studies

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

The CPI is published in its definitive version, and there is no provisional index. When there are changes in the base, the weighting changes are carefully analyzed.

4. Serviceability

4.1 Relevance

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

It is clear that the CPI meets the needs of many users. However, there is no regular mechanism for consulting users to verify whether the program meets their needs. From time to time, the DS participates in international meetings and seminars organized by international and supranational institutions, in the context of preparing the CPI.

4.2 Timeliness and periodicity

4.2.1 Timeliness follows dissemination standards

CPI data are published three weeks after the reference month, this timing does better than the recommendations of the GDDS and the requirements of the SDDS.

4.2.2 Periodicity follows dissemination standards

The CPI is published monthly. This periodicity is consistent with the requirements of the SDDS and the recommendations of the GDDS.

4.3 Consistency

4.3.1 Statistics are consistent with the dataset

The current CPI time series are internally consistent. The indices in cities show similar trends and the overall CPI reflects properly the component trends.

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

The current CPI time series are consistent since 1989.

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

The price indices show nearly the same trends, and any differences can always be explained. The implicit GDP deflator differs from the CPI in that it covers exports and excludes imports.

4.4 Revision policy and practice

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

There is no clearly established calendar for making changes in the base year.

4.4.2 Preliminary data are clearly identified

Not applicable. The CPI is not revised.

4.4.3 Studies and analyses of revisions are made public

There are no studies on changes in the base year that are available to the general 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)

CPI estimates are published at different levels: the most detailed level consists of eight groups and 53 subgroups of products, for 11 cities. For example, on the first page of *Repères Statistiques* (the monthly bulletin of the DS), the indices are published with commentaries, graphs and summary statistics in three tables. The graph shows the time series over two-three years.

5.1.2 Dissemination media and formats are adequate

CPI estimates are released each month in a publication devoted exclusively to the CPI, and they are also distributed electronically over the website.

The DS has an electronic database of long time series. Users can access this database through DS personnel and a project is underway to provide access via the website.

5.1.3 Statistics are released on a pre-announced schedule

CPI results are published before the end of the month following the reference month, but the data and time of release are not announced in advance. The website is updated as soon as *Repères Statistiques* appears.

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

The data are available at the same time to all interested users, but the public is not aware of the exact time of release.

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

Nonconfidential data from the compilation are available on 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

A detailed, 15-page methodological note is available.

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

The metadata are available at different levels of detail. In addition to the methodological note, a methodological summary of the CPI is published together with the figures for each month.

5.3 Assistance to users

5.3.1 Contact person for each subject field is publicized

Users have access to prompt and expert assistance. Inquiries are initially routed to the publication service, which can be reached by mail, telephone, fax or e-mail. Users wishing to speak to the person responsible for the CPI will be transferred accordingly.

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

The data are well catalogued so that users can tell what information is available and how to get it. Brochures have been prepared to inform users of available price statistics.

Table 1.2. Morocco—Data Quality Assessment Framework: Summary Presentation of Results for Consumer Price Indices
(Compiling agency: Statistics Directorate)

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	X			An external advisory committee should be established to discuss CPI quality issues.	
0.3 Quality awareness							
1. Integrity							
1.1 Professionalism		X					
1.2 Transparency			X			The data are available on demand as soon as they are ready, before being disseminated officially in publications.	
1.3 Ethical standards		X					
2. Methodological soundness							
2.1 Concepts and definitions		X					

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

Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Practice Not Observed; SDDS = Complies with SDDS Criteria							
Element	NA	Assessment				Comments on Assessment	Plans for Improvements and Target Dates
		O	LO	LNO	NO		
2.2 Scope			X			CPI represents only a subset of urban population and excludes non-market goods and services.	
2.3 Classification/sectorization		X					
2.4 Basis for recording		X					
3. Accuracy and Reliability							
3.1 Source data			X			Weightings, product lists and points of sale date from more than 10 years ago. The same weights in all city indices and the population weights are used to compile the national index.	Reform planned for 2003 to incorporate the 2001 ECM results.
3.2 Statistical techniques			X				
3.3 Assessment and validation of source data		X					
3.4. Assessment and validation of intermediate data and statistical output		X					
3.5 Revision studies			X				
4. Serviceability							
4.1 Relevance			X			Users could be consulted more systematically.	
4.2 Timeliness and periodicity		SDDS					

Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Practice Not Observed; SDDS = Complies with SDDS Criteria							
Element	NA	Assessment				Comments on Assessment	Plans for Improvements and Target Dates
		O	LO	LNO	NO		
4.3 Consistency		X					
4.4 Revision policy and practice			X			No clearly established calendar for making changes to the base year.	
5. Accessibility							
5.1 Data accessibility			X			No calendar to announce release dates in advance.	A pre-announced publications calendar is planned.
5.2 Metadata accessibility		X					
5.3 Assistance to users		X					

III. PRICE STATISTICS (PRODUCER PRICE INDEX)

0. Prerequisites of quality

See “Prerequisites of quality” in Section II on the consumer price index.

1. Integrity

See “Integrity” in Section II on the consumer price index.

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 quarterly PPI for Morocco (1997 = 100) is based on internationally accepted standards, principles or practices. The PPI was developed by using SNA concepts for recording and valuation of product prices and weights. The PPI is an output price index, with weights based on 1997 industry gross output value data from the annual industrial survey, valued at basic prices.

2.2 *Scope*

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

The scope of the PPI covers all branches of activity in mining, industry and energy. Coverage is limited to market products produced by enterprises in the formal sector. Neither the use of intermediate products by the industries included in the PPI nor informal producers are covered: the authorities estimate that including them would not be effective in cost-benefit terms. (However, there are wholesale indices covering agricultural products that are used for the provisional national accounts).

2.3 *Classification/ sectorization*

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

The classifications used are the Moroccan Classification of Economic Activities (NMAE) and the Moroccan Products Classification (NMP) dating from 1995. The NMAE is harmonized with the ISIC version 3 and the NMP is based on the Central Product Classification (CPC) for classifying products, in accordance with the *1993 SNA*.

2.4 Basis for recording

2.4.1 Market prices are used to value flows and stocks

The standard used for evaluating prices and weightings is the “basic price” (excluding VAT and other taxes on goods). This was specifically verified to be the case for petroleum products.

2.4.2 Recording is done on an accrual basis

Calculation of the weightings relies on the accounts of businesses, which are generally kept in accordance with the accrual principle.

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

Not applicable. No indices are established by stage of processing.

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 business registry of the Ministry of Industry, Trade, Mining and Energy (MICME) is used to prepare the survey samples. (A single registry for all administrative purposes is planned).

Weightings for the current PPI are based essentially on data from the 1997 annual survey conducted by the MICME, supplemented with information from other survey sources. These surveys can then be used to adjust the weightings, as is planned every five years. The results of these surveys are available only after a lag of one year. (A study of the 1998 survey results showed that the economy’s structure had changed little between the two years. The authorities have concluded that changing the weightings every year is unnecessary.) The coverage of these source data, compared to their scope, is about 80 percent.

For price movements, most of the source data are obtained from 200 enterprises, of which 95% are located in Casablanca. The largest firms in each branch were selected. Prices of manufactured goods are surveyed quarterly, monthly or (for three products) weekly. Mining and energy prices are obtained from the supervisory authorities.

Neither intermediate goods nor informal enterprises are covered (see 2.2.1). The DS undertakes special surveys from time to time, for example in 1998, to identify products for inclusion in the new index.

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

The source data are largely consistent with the definitions, scope, classifications, valuation and recording time for the PPI. The classification of source data and weightings is done according to the new NMAE, based on ISIC Revision 3, and PPI data are thus consistent with the new classification. Until the 1993 SNA is introduced, the price section will continue to produce the PPI using both classifications (old and new) in order to meet users' needs, and in particular for national accounts purposes.

3.1.3 Source data are timely

Source data (from 1997) for weightings were available on time for preparation of the 1997 index in the first quarter of 1999. Most prices are surveyed on time by the DS. Some prices (especially for mining and energy), provided from other systems, are not available in a timely manner.

3.2 Statistical techniques

3.2.1 Data compilation employs sound statistical techniques

The source data used for calculating the weightings are broken down into 300 products, grouped in 26 branches and 3 sections, according to the 1995 Moroccan classification (see 2.2.1). These are production figures (sales adjusted for inventories). No adjustment is made to figures supplied by the enterprises.

In deriving the arithmetic mean of data gathered during the quarter, the elementary indices (varieties) are calculated from the change in prices for the current period relative to prices for the reference period. The Laspeyres method is used for aggregating the elementary indices. Currently, the weightings reference period and the price reference period are the same (1997). When new weightings are adopted, the new index is chained to the old.

For products that are temporarily unavailable, the missing data are imputed using the price trend of similar products. When varieties of a product disappear permanently, they are replaced in the sample, and adjustments are made to take account of quality differences. New product varieties are included in the sample once they show a growing market share, at which time they will replace less representative varieties. For example, in December 2001 eight products were replaced. However, new products as such are not considered until the weightings are revised.

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

The limits to the scope of the PPI are clear. The sectors covered account for only 30 percent of GDP. As part of the work on the national accounts, various methods are used to establish official estimates for other activities.

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 non-sampling error; the results of the assessments are monitored and made available to guide planning

The source data for the weightings are considered reliable. The survey covers the 6000 to 7000 enterprises that have been licensed by the Ministry.

The source data on prices are analyzed to correct any underestimates or erroneous reporting, with particular attention to consistency over time and with other information sources. Sampling errors cannot be calculated since varieties and points of sale are selected deliberately. Nonresponses are not a problem, given the close links between surveyors and the people surveyed. A representative of the surveyors in each city visits headquarters every month. This provides an opportunity to resolve any problems that may arise.

3.4. *Assessment and validation of intermediate data and statistical outputs*

3.4.1 Main intermediate results are validated against other information where applicable

Not applicable. No regular comparisons are made with other sources of information at the intermediate level. However, internal studies are conducted from time to time to compare price indices and to examine the trend of the money supply and the implicit GDP deflator.

3.4.2. Statistical discrepancies in intermediate data are assessed and investigated

There is no discrepancy between the PPI by activity and the PPI by product.

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

Whenever there is evidence of a potential problem the DS examines it carefully.

3.5 Revision studies

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

The DS conducts no studies of revisions to the PPI to detect whether there is a regular pattern to them. During the current mission, however, an initial analysis of this kind was undertaken: it is not yet complete, and will be published at the time of the next revision.

4. Serviceability

4.1 Relevance

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

The current design of the PPI was worked out in cooperation with the divisions responsible for preparing the national accounts (who are the principal users). The system is well suited to their needs. However, there is no regular mechanism for consulting other users. The DS has never participated in international meetings and seminars organized by international and supranational institutions, in the context of preparing the PPI.

4.2 Timeliness and periodicity

4.2.1 Timeliness follows dissemination standards

PPI data are published in less than one month, and this timing exceeds the requirements of the SDDS (noting that, for some categories, the data are provisional).

4.2.2 Periodicity follows dissemination standards

The PPI and the Production Index (PI) are both calculated on a quarterly basis. For the time being, there is no evident interest in moving to a monthly basis, particularly since, according to the authorities, it is virtually impossible to do so, because of the technical constraints inherent in the length of time needed for the survey and the nature of the units surveyed. It must be noted, however, that a quarterly periodicity is not consistent with the requirements of the SDDS and the recommendations of the GDDS. This is true for both the PPI and the PI.

4.3 Consistency

4.3.1 Statistics are consistent with the dataset

The PPI time series are consistent since 1997, when the new classification was adopted. The DS has a time series based on the old classification that is consistent for more than 20 years prior to 1997. Links can be established between these two series at the aggregated level.

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

There is no discrepancy between the PPI by product and the PPI by economic activity.

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

The price indices show nearly the same trends, and any differences can always be explained. The implicit GDP deflator has a broader scope than that of the PPI.

4.4 Revision policy and practice

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

Revisions are incorporated as soon as possible (in the latest annual figures) and are then published regularly.

4.4.2 Preliminary data are clearly identified

The preliminary data are clearly indicated as such in the tables.

4.4.3 Studies and analyses of revisions are made public

There are as yet no available publications on revisions to the provisional indices. Because of availability problems with certain prices, the index is initially published using carry-over prices. Corrections to the provisional indices are cited in the following publication.

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 PPI is published mainly at the level of activity branches. Each quarterly publication allows for comparisons between the most recent quarter and the previous period. There is an annual publication that contains data for all quarters of the year, with annual averages and figures from the previous year.

When they occur, irregular changes in the quarterly time series are explained in terms of the contribution of the components in the overall PPI change.

5.1.2 Dissemination media and formats are adequate

PPI estimates are released quarterly and annually in a printed publication devoted exclusively to the PPI, and they are also distributed electronically.

The DS has an electronic database of long time series. Users can access this database through DS personnel and a project is underway to provide access via the website.

5.1.3 Statistics are released on a pre-announced schedule

PPI results are published before the end of the month following the reference quarter, but the data and time of release are not announced in advance. The website is not updated on set dates.

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

The data are available at the same time to all interested users, but the public is not aware of the exact time of release.

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

Non-confidential data from the compilation are available on 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

A 13-page methodological note is available, covering nearly all needs. There is no departure from international good practices.

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

The metadata are available at different levels of detail. In addition to the methodological note, a brief summary of the PPI methodology is published together with the figures for each quarter.

5.3 Assistance to users

5.3.1 Contact person for each subject field is publicized

Users have access to prompt and expert assistance. Inquiries are initially routed to the publication service, which can be reached by mail, telephone, fax or e-mail. Users wishing to speak to the person responsible for the PPI will be transferred accordingly.

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

The data are well catalogued so that users can tell what information is available and how to get it. Brochures have been prepared to inform users of price statistics.

Table 1.3. Morocco—Data Quality Assessment Framework: Summary Presentation of Results for Producer Price Indices
(Compiling agency: Statistics Directorate)

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					
0.3 Quality awareness			X		Data quality could be monitored more closely, such as by analyzing revisions.		
1. Integrity							
1.1 Professionalism		X					
1.2			X		The data are available on demand as soon as they are ready, before being disseminated officially in publications.		
1.2 Transparency							
1.3 Ethical standards		X					
2. Methodological soundness							
2.1 Concepts and definitions		X					
2.2 Scope		X					
2.3 Classification/sectorization		X					
2.4 Basis for recording		X					
3. Accuracy and Reliability							
3.1 Source data			X		Mining prices are not available on time.		

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

Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Practice Not Observed; SDDS = Complies with SDDS Criteria							
Element	NA	Assessment				Comments on Assessment	Plans for Improvements and Target Dates
		O	LO	LNO	NO		
3.2 Statistical techniques		X					
3.3 Assessment and validation of source data		X					
3.4. Assessment and validation of intermediate data and statistical output		X					
3.5 Revision studies			X			Revision studies are not conducted.	During the mission, a start was made at studying revisions.
4. Serviceability							
4.1 Relevance			X			Users could be consulted more systematically.	
4.2 Timeliness and periodicity			X			According to the standards, the PPI should be monthly. However, timeliness exceeds the requirements of the SDDS.	Since periodicity meets the country's current needs, no change is planned.
4.3 Consistency		X					
4.4 Revision policy and practice			X			Revisions policy could be clarified.	
5. Accessibility							
5.1 Data accessibility			X			No calendar to announce release dates in advance.	A pre-announced publications calendar is planned.
5.2 Metadata accessibility		X					
5.3 Assistance to users		X					

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*

There is no law that explicitly establishes responsibility for the collection, processing and dissemination of Government Finance Statistics (GFS). The Directorate of the Treasury and External Financing (DTFE), created by Decree No. 2.78.539 of 22 November 1978 dealing with organization of the Ministry of Economy, Finance, Privatization and Tourism (MEFPT), has a de facto responsibility for budgetary monitoring, and this is done on the basis of its monthly Table of Treasury Expenditure and Revenue, which is published in the monthly economic bulletin along with a table on outstanding domestic debt and a table on foreign debt transactions.

The role of the DTFE, then, is to centralize the source data, essentially from accounting sources, to produce statistics and to exert overall responsibility for government finance statistics, although these duties do not appear in the list of its “attributions” on its website.

According to the authorities, users are aware of this role, which is reinforced by the fact that the most widely used public deficit indicator is that of the Table of Treasury Expenditure and Revenue published by the DTFE, and not the table that appears in the budget. The budget submission to Parliament has been accompanied, since the Finance Act of 1999/2000, by an economic and financial report based on the presentation contained in the Table of Treasury Expenditure and Revenue.

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

The DTFE receives on a daily basis from Bank Al-Maghrib data that are required for calculating the net Treasury position with the banking system: this includes not only the position of the Treasury account with Bank Al-Maghrib and the amount of claims (loans and securities) on the Treasury held by Bank Al-Maghrib but also the stock of outstanding claims (securities) held by other credit institutions. The DTFE performs reconciliations with accounting sources and uses this information to calculate the breakdown of domestic financing between banking and nonbanking transactions.

At the same time, the DTFE sends to Bank Al-Maghrib the Statement of Treasury Expenditure and Revenue which describes the Treasury’s revenue, expense and financing. In establishing its monetary statistics, Bank Al-Maghrib has expressed the need to have data on outstanding deposits with the Treasury, information that used to be supplied by the DTFE on the basis of the General Balance of Accounts compiled by the General Treasury of the Kingdom (TGR) and transmitted to the DTFE. This statement is no longer provided to the

DTFE by the TGR; Bank Al-Maghrib has the possibility of collecting the information directly from the TGR.

The technical departments of Bank Al-Maghrib can provide their statistical comments by telephone with respect to the Table of Treasury Expenditure and Revenue, which the DTFE provides to them monthly (and in greater detail) prior to publication. Bank Al-Maghrib publishes these statistics in its regular reports; conversely the DTFE is able to give its statistical opinion before publication, with respect to the chapter on government finances in Bank Al-Maghrib's Annual Report.

The Ministry responds regularly to users' requests and remains available to their needs, although no formal procedure is currently in place to do so. At the time of the budget presentation, the information provided since 1999/2000 is much more complete than that in the Table of Treasury Expenditure and Revenue.

The meetings of the National Money and Savings Council, at which a speech is presented by the minister in charge of Finance as well as by the governor of Bank Al-Maghrib, provides a forum for dialogue and consultation on questions relating to the financing of the economy and monetary policy. They provide the opportunity for Council members to offer their views to monetary authorities, notably regarding the statistical needs of users that are members of the Council.

The DTFE collects data from the social security and pension agencies on an annual basis for preparing the central government accounts. At present data are not received from the Directorate of Public Establishments and Participations (DEPP), which is responsible for overseeing Public Administrative Establishments (EPA), Public Industrial and Commercial Establishments (EPIC) and nonfinancial public enterprises; this information would represent a source that could be used to produce more complete central government statistics on an annual, quarterly and even monthly basis, as well as data on the public sector.

The DTFE cooperates with the TGR, which keeps the government's accounts. The DTFE prepares its Table of Treasury Expenditure and Revenue using the SPOT (provisional statement of Treasury operations), which the TGR produces and supplements by providing by telephone information on government expenditure. In addition, during the monthly bilateral meeting to examine the Table of Treasury Expenditure and Revenue, reconciliations are made against the aggregates that the General Treasury of the Kingdom has available.

The TGR now has aggregates on local government, thanks to a very ambitious statistical project for the systematic collection of information. However, it would be desirable for the DTFE to receive the General Balance of Accounts from the TGR on a more regular basis, as in the past. Greater cooperation between these two departments would seem to be necessary if the coverage of the GFS is to be expanded, in particular to include data on local government.

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

To the extent that the government finance statistics represent an aggregate of accounting data on large numbers of taxpayers, the rules governing “statistical secrecy” are properly observed concerning tax declarations.

The government finance statistics as currently published do not yet contain data on the public sector. However, some essentially accounts-based information on individual public enterprises is published in the annex to the budget while individual transactions (particularly relating to revenues) between the central government and the public sector are recorded in the budget.

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

Under the DTFE’s legal powers, its division in charge of GFS compilation receives information from the TGR and Bank Al-Maghrib, which is generally of an accounting nature, and only rarely of a statistical kind. The DTFE receives information from the customs directorate and from the budget directorate (monthly authorizations report), which is used for crosschecking against the SPOT and for interpreting trends. The DTFE receives the “statement of commitments” from the General Comptroller of Expenditure Commitments (CGED) of the MEFPT. Crosschecks are performed.

The DTFE no longer receives the General Balance of Accounts from the TGR, although this complete (if aggregated) monthly statement contains information that is particularly useful, notably in terms of suspense accounts and of recordings representing financial transactions.

The DTFE receives from the TGR accounting data on budgetary execution within 20 days. This lag, while reasonable, should be reduced by a few days, in accordance with the SDDS, and this could be achieved through better coordination between departments (lags could be reduced by about one week).

The new system for assembling information from local governments is based on a new, detailed statistical questionnaire designed and processed by the TGR.

The DTFE could also work with the DEPP to develop ways of monitoring transactions by public establishments or companies, and thereby obtain complete coverage of government transactions in short order.

0.2 Resources

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

The Public Treasury Service of the DTFE, which is responsible for compiling government finance statistics, has a staff of six, all of whom are officers. Given the many other tasks of a unit that stands at the heart of government financial management, the increased workload implied in subscribing to the SDDS (expanded statistical coverage and reporting as well as the updating of metadata such as those for the Dissemination Standards Bulletin Board, DSBB) would seem to require additional staffing. The department also suffers from a lack of workspace.

Significant staff resources are devoted within the TGR to compiling and (to some extent) aggregating basic information, and this facilitates the DTFE's task of preparing the GFS; it is difficult, however, to estimate the number of TGR staff directly involved in the GFS function, which is in addition to its principal accounting duties. Among other things, the TGR compiles the Monthly Government Finance Statistics Bulletin, a very comprehensive document (14 pages including several tables) that has, however, limited distribution (internal to the MEFPT).

Officers of the Public Treasury Service of the DTFE all have university degrees in economics or statistics. Their education is supplemented by the experience that they have acquired on the job within the department; in addition, three officers have taken courses of two to three weeks at the Arab Monetary Fund, one of which was devoted to the move to the new *Government Finance Statistics Manual 2001 (GFSM 2001)*. One officer has had several years of (admittedly general) training provided by the Institute of Public Administration in Paris.

In addition to the three IMF missions that included an expert in government finance statistics (1998, 1999 and 2000), there have been occasional technical assistance courses such as the four-day course (September 2000) given through cooperation between Statistics Canada and the DTFE (a Canadian expert led a seminar open to other directorates of the MEFPT, in addition to providing technical assistance with the *GFSM 2001* and the Canadian SGF system).

The DTFE and the TGR are awaiting the French version of the new manual (*GFSM 2001*). They are also hoping to receive appropriate training for as many officers as possible, and they spoke of the usefulness of presentations in French that could also be used to sensitize middle management to statistical work, and help to reinforce and sustain progress to date, which is still based on a rather narrow body of expertise.

As well, officers of the Public Treasury Service of the DTFE have taken training courses offered by the DTFE's training and administration department, with a focus on computer operations.

Finally, intensive on-the-job training remains in practice an essential component for smooth functioning of the Service and for effective integration of new recruits.

The Service would seem to be well equipped with microcomputers (which are networked). The DTFE makes active use of the Internet, not only for e-mail but for accessing the world wide web, and it also has an intranet website to supplement the Department's Internet site.

In addition to a solid international-level training provided, which not only serves to maintain high professional standards but also serves as a powerful incentive, experience counts as a valuable asset for officers making their career within the MEFPT and within the central government generally.

0.2.2 Measures to ensure efficient use of resources are implemented

The costs of producing the GFS, and in particular the Table of Treasury Expenditure and Revenue, are neither quantified nor evaluated on a regular basis. Without analytical accounting, the budgetary information available on the DTFE and its units, as well as other producers of statistics, does not allow the identification of these costs.

There is no audit report or internal memorandum referring to these costs.

On the basis of its current organization, the DTFE would seem to be fairly efficient at compiling the Table of Treasury Expenditure and Revenue, which is widely used for internal budget monitoring, communication with the public and information to Parliament. Nevertheless, the many forms in which fiscal data are distributed, and the fact that they are managed independently and without coordination by various divisions of the MEFPT or Bank Al-Maghrib, poses the risk that users may be confused by the multiplicity of presentations.

Moreover, the existing wealth of monthly information on local government remains largely unused, while the more recently available semiannual (and in future quarterly) data do not yet appear in government finance statistics: general government expenditure and revenue accounts are not compiled, and those for local government are not published.

0.3 Quality awareness

0.3.1 Processes are in place to focus on quality

Quality is considered the cornerstone of the statistical work that goes into preparing the Table of Treasury Expenditure and Revenue, although the focus tends to be limited to the accuracy of the data.

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

The intrinsic reliability of the Table of Treasury Expenditure and Revenue flows from the fact that it is based for the most part on an integrated accounting source managed by the TGR. It is reinforced by monthly meetings between the DTFE and the TGR during which the data are carefully examined.

In the context of the meeting of the Financial Situation Committee (CCF), created by a ministerial memorandum in 1999, regular (monthly or so) working meetings of a CCF sub-committee (CCF-Treasury) are held, during which the Table of Treasury Expenditure and Revenue is gone over carefully by the MEFPT directorates (as well as the Foreign Exchange Office (OC)).

The GFS is based on accounting sources that are prepared in accordance with strict standards. Accounts are closed at the end of the year and no major revisions are required, since there is no “supplementary period” in Morocco. The General Balance of Accounts (the “definitive version”) prepared at this stage appears as final, but may be subject of retrospective opening of accounts when the budget department prepares the financial appropriations act, which is voted by Parliament after approval by the Court of Accounts. There is some delay in this regard, since the last “appropriations act” that was voted was for fiscal year 1994.

There are no plans for a systematic survey of users’ opinions.

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

The authorities recognize that there are trade-offs to be made between GFS accuracy and other quality considerations or dimensions.

It is clear that the current stress is on accounting accuracy as well as on the usefulness of the statistics for monitoring budgetary performance. The few estimates and breakdowns that are made are done in light of this concern to track better budget execution: as an example, data are reprocessed to take account of the end-of-month effect (corporate taxes) so as to allow performance to be compared with the previous budgetary exercise, even if this means departing from the accounting framework.

International statistical and accounting rules are taken into account in monitoring quality and in making plans for improvement, particularly since adherence to the Special Data Dissemination Standards presupposes improvements in coverage (cf., “DTFE Strategic Plan of Action to 2004” of the MEFPT), as well as in the frequency and timing of publication.

1. Integrity

1.1 Professionalism

1.1.1 Statistics are compiled on an impartial basis

The Table of Treasury Expenditure and Revenue is based on accounting sources that are themselves prepared by officials who must obey a strict code of ethics and who may be held financially liable for any errors.

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

The DTFE indicates that there have been no cases of political pressure.

The fact that the Table of Treasury Expenditure and Revenue is prepared in accordance with the rules in the IMF *GFSM 1986* helps to ensure a degree of methodological independence. However, there are some significant deviations from the manual, such as recording privatization proceeds as revenue.

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

The minister is responsible for the MEFPT's communications. In case of misinterpretation in the press or by a rating agency, the authorities say that bilateral contacts are made.

The public does not have access to methodological documents. However, the GFS are published along with detailed analysis.

1.2 Transparency

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

The current terms and conditions under which statistics are collected, processed, and disseminated are not published.

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

The economic bulletin [*Note de Conjoncture*], which is published by the DTFE and is the principal vehicle in which the GFS are published, makes no specific mention of the procedure whereby the GFS are approved and circulated within the government and among privileged correspondents before they are released to the general public. The DTFE manages a list of priority recipients for the economic bulletin.

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

The DTFE and the MEFPT are not always or systematically cited (as they should be, at the foot of each table) in publications where their data appear. Reference to the agency producing the statistics (which it is useful to distinguish from the agency that provides the presentation) is normal internationally agreed practice; this is also true for the actual producer, in particular when the data are published in a general bulletin along with other statistics.

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

Changes in methodology, source data and techniques are not announced in advance but they are explained at the time of publication in the economic analysis notes. The *Fascicule* (abstract) of the DTFE, to which the methodological annex would be attached, together with information to be provided on the DSBB, has been suspended since 1995.

1.3 Ethical standards

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

The producers of the GFS are covered by general administrative provisions relating to professional behavior and ethics (Public Servants Statute). Moreover, the DTFE compiles its statistics on the basis of data reported by the TGR, which is bound by the decree on the responsibility of public financial officers.

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 Table of Treasury Expenditure and Revenue is prepared in line with the principles of the *GFSM 1986*, and follows its overall presentation. This table corresponds to the Government Financial Transactions Table (TOFE), the standard recognized for countries that have a budgetary and accounting organization as well as a “Treasury circuit” of the French type.

It is recognized that the *GFSM 2001* will have to be eventually adopted, in order to comply with the more current international standard. The Moroccan authorities so far have no plan for migrating from the old *GFSM 1986* to the *GFSM 2001*. However, the adoption of the draft decree on the new government chart of accounts (which calls for a similar accounting change and has been adopted by the Supreme Accounting Council) will provide a first step for the move to accrual-based recording.

2.2 *Scope*

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

The Table of Treasury Expenditure and Revenue has the same coverage as the budgetary presentation: general budget, satellite [“annex”] budgets, Special Treasury Accounts and, in addition, since 2000 (six-month budget exercise), the autonomously managed government services (SEGMA).

Apart from these budgetary central government operations (“Etat” in a statistical sense), annual statistics are available, but published only in the IMF’s yearbook of GFS (*GFSY 2001*) for the central government, covering social security and pension regimes: Moroccan Pension Fund (CMR); Retirement Allowances Regime (RCAR); National Social Security Fund (CNSS); and more recently the Health Insurance System for Public Employees (CNOPS), which has been mandatory since fiscal year 1999/2000. However, many other central government agencies (primarily EPAs) are not covered.

The removal of the Hassan II Fund from the budget (formerly a Special Allocation Account,⁹ it has been transformed, as of 2002, into an EPIC) poses the question of how it should be classified in terms of institutional sector. Originally created by Decree number 2-00-1 2916 March 2000, and converted to a public establishment by Law No. 36-01 promulgated by the *dahir* No. 1-02-02 (February 21, 2002), for the purpose of distributing finance and assistance in support of general public policy, it is not evident how its powers, its objectives (which are non-market) and its activity would lend themselves to classification as a market unit. Non-market units (institutional or not) under government control are classified as general government in the *GFSM 2001*, and also in the *GFSM 1986*, regardless of their legal status: legal status is not a constraint for sectoral classification. The reform of the statute governing the Hassan II Fund suggests that it should be reclassified from the budgetary central government (“Etat”) subsector to the extrabudgetary fund (mainly miscellaneous agencies of the central government (ODAC)) subsector, via an “other change in volume” (see the *1993 SNA* and the *GFSM 2001*).

There are no government finance statistics on general government or on the public sector (except for external debt contracted or guaranteed by the Treasury), although data are produced and sometimes published (in an annex to the budget for instance) for public entities other than the budgetary central government: monthly aggregated accounting data and more detailed half-yearly (soon quarterly) data for local governments; and miscellaneous data for other entities (ODAC and public enterprises).

⁹ Special Allocation Accounts are a special type of Special Treasury Accounts.

Data on the other public entities are available from the DEPP and are used to prepare a report that is attached to the Finance Act (since 2000), which is accessible on the website of the budget directorate.

The full monthly Table of Treasury Expenditure and Revenue describes revenue, expenditure and financing at a level of detail close to that of Tables A, C, D and E of *GFSM 1986*. A classification by function, and sometimes by ministry, is also prepared (annual statistics) for the *GFSY 2001* and was formerly provided in the *Fascicule* (which the DTFE intends to revive).

Government debt (nominal value) is compiled and regularly published in the economic bulletin (and on the MEFPT's website) and in the bulletin of Bank Al-Maghrib, with a breakdown similar to that of the *GFSM 1986*: by counterparty, i.e., external debt (annual) and domestic debt (monthly), banking and nonbanking, but also by maturity and category of instrument.

Domestic debt does not include deposits of “correspondents” and of the private sector with the Treasury (and postal deposits—CCP), where the Treasury plays the role of banker, nor statutory advances by Bank Al-Maghrib. These are anomalies.

The external debt guaranteed by the Treasury (debts of EPA, EPIC and public corporations) is published annually. However, the domestic debts of the ODAC, local governments and nonfinancial public enterprises are not compiled and are not published.

2.3 Classification/sectorization

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

The classification of revenue, expenditure and financial stocks and flows (monthly data) deviates somewhat from the prescriptions of the *GFSM 1986*: besides the use of a terminology and a subclassification that on purpose reflects the budgetary classifications, there is the following significant deviation: privatization proceeds are classed as capital revenues, whereas, since they are financial transactions, they should appear under financing (below the line), in accordance with the new *GFSM 2001* and the *1993 SNA*, or as “lending minus repayments” (negative, above the line), as called for in the *GFSM 1986*.

In addition, the classification of current transfers under the heading “goods and services” of the Table of Treasury Expenditure and Revenue can be a source of confusion. These transfers should instead be grouped with the item “compensation,” which covers assistance provided under product subsidy programs. The portion of transfers corresponding to employers' social contributions is correctly recorded.

Besides the simplified monthly treatment of a large portion of the Special Treasury Accounts, shown on the basis of their net balance (see 2.4.3), there is an asymmetry in the treatment and

recording of VAT, which complicates the reading of the Table of Treasury Expenditure and Revenue, but of which users are aware: while all VAT collected is recorded as government revenues, with the legitimate aim of avoiding underestimation of “fiscal burden,” the amount allocated to local government is not recorded under total expenditure (as transfers) but under “net balance of the other Special Treasury Accounts (CST).” The latter, however, is included in the calculation of the overall deficit/surplus, which is therefore correct.

Moreover, returns from the sale of GSM telephone licenses are classed under “monopoly earnings” (or, using the *GFSM 1986*’s terminology: property income) and not as recommended as sales of nonfinancial assets (current interpretation of *1993 SNA*) or as financing (prepayment of rent).

Treasury deposits and statutory advances by Bank Al-Maghrib are not included under domestic debt, although they are financial (but unremunerated) liabilities of the Treasury. This restricted definition is not consistent with international standards and makes it difficult to link flows and stocks.

The annual data (which are published only in the *GFSY 2001* are more in line with the *GFSM 1986*. Capital expenditure have been broken down since 1995 between investments and capital transfers, and by beneficiary (other administrations or public enterprises).

2.4 Basis for recording

2.4.1 Market prices are used to value flows and stocks

For revenue, expenditure and financing, flows are valued on the basis of the amounts actually paid. The method of valuing certain components of financing, however, deviates from this rule (differences are small), such as transactions on long-term domestic liabilities that are calculated by the change in stocks.

Gross debt is recorded at face value.

Foreign currency debts outstanding are converted at the selling rate prevailing at 11:00 a.m. (on the last day of the period) reported by Bank Al-Maghrib. Foreign currency transactions use the effective rate (essentially that applied by Bank Al-Maghrib) for external drawings, payments on the external debt and external purchases, which is acceptable (although a mid-point would be preferable, the difference being then entered as commissions).

2.4.2 Recording is done on an accrual basis

Revenues are recorded on a cash basis, without exception (cash deposited or checks presented at Bank Al-Maghrib and credited on the same day). Expenditure are recorded on an “issuance” basis, i.e., the stage that follows the payment order [*ordonnancement*], at which time the public accountant [*comptable*] confirms the regularity of the payment and affixes his stamp. In practice, the average lapse of time separating the “issuance” and the payment is

normally short. For example, the average lapse between initial authorization (the stage preceding issuance) and the payment is eight weeks in the case of capital purchase orders for procurement and contracts that require in-depth examination (cf., *Monthly Bulletin of Government Finance Statistics* of the TGR).

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

GFS items are recorded on a gross basis.

Transactions involving the Special Treasury Accounts and satellite budgets are recorded on a gross basis in the annual statistics (*GFSY 2001* only) under revenue and expenditure. However, in the Table of Treasury Expenditure and Revenue (monthly), the gross basis of recording is used only for four large “special allocation” accounts (including the Hassan II Fund), while the remainder is recorded on a net basis. (This problem does not affect those special accounts that are used for financial transactions, which are automatically presented on the basis of loans less repayments). The DTFE’s Strategic Action Plan to 2002 calls for improvements in this area.

Financial transactions are presented on the basis of issuances net of repayments or acquisitions net of disposals, and the transactions in claims are not deducted from the transactions in liabilities (which is adequate). Stocks of government financial assets such as cash balances are not deducted from government debt, which is adequate.

Already “accrued coupons” sold at issuance are recorded as revenues (as is the case in the budget presentation) and not as deductions from interest for the period, as was the case until recently (which was creating an artificial reduction in the deficit when revenue derived from the SPOT were not also corrected for accrued coupons sold). It is, however, recommended to treat those as financial transactions, in line with the *GFSM 2001* and also with the spirit of the *GFSM 1986*. The portion of the detached coupon related to the sold coupon is then also treated as a financial transaction when the coupon is detached.

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 GFS are prepared primarily on the basis of the SPOT, an aggregate account established by the General Treasury of the Kingdom, which keeps the government’s accounts. It is supplemented by information taken from databases on domestic debt (domestic debt unit) and external debt (external debt management division), as well as from Bank Al-Maghrib data: the Treasury account, financing from Bank Al-Maghrib and other credit institutions. As well, information is received from the customs directorate, the budget directorate and the

general expenditure commitments control directorate. Finally, the General Balance of Accounts is used (to a very limited extent) to add detail for certain items: this is now provided by telephone, since the General Balance of Accounts is no longer provided to the DTFE.

To the extent that the Moroccan GFS coverage is limited to a narrow budgetary base and, as such does not cover the activities of several organizations, the question of data consolidation (i.e., elimination of reciprocal links) is not of great significance.

With respect to the **annual statistics** (which are published only in the *GFSY 2001*), transactions within the budget, i.e., between entities covered by the budget (for example between the general budget and a satellite budget) are properly eliminated. Current transfers between the budget and the social security and pension regimes (CMR, RCAR, and CNSS) are consolidated. Employer's social contributions paid by the budgetary central government to the CMR (for eligible officers) and to the RCAR (for trainees or temporary employees), in its capacity of employer, are consolidated, in line with the *GFSM 1986* (the new *GFSM 2001* follows the rationale of the *1993 SNA* and considers these contributions as an integral part of compensation of employees, and they are not therefore "consolidated"; moreover, under certain conditions the *GFSM 2001* treats pension contributions paid by public servants as well as the pension allowances they receive as financial transactions). Transfers of "points" (corresponding to years of contributions) from the RCAR to the CMR are also consolidated.

Investments by the CMR and the RCAR are mainly in government securities and are properly consolidated: central government debt figures do not reflect these securities, while interest paid and received is also reduced in the appropriate amounts (for an unchanged net payment of interest).

On the other hand, CNSS investments currently lodged in the CGED are not consolidated (and are not to be). If they were invested in mutual funds (securities issued by the "finance companies," (OPCVM)), these amounts would not be consolidated either, even if the mutual funds held essentially government securities, since they represent indirect holdings. Nevertheless, if these mutual funds were limited to the CNSS as sole investor, the transparency principle could conceivably be applied, but it would require broad agreement among statisticians: Bank Al-Maghrib, OC, DTFE and DS, and consolidation would then be possible.

In terms of **monthly statistics**, only the most significant transactions within the budget are eliminated. The fact that most of the special accounts are treated on a net basis eliminates the risk of double counting, but does not in itself constitute real consolidation: the classification of the amounts recorded is not entirely correct. The same is true for operations of the SEGMA's that are now incorporated in the budget.

The TGR, as the accounting agent for local governments, has a wealth of information. It produces and publishes (in its *Monthly Bulletin of Government Finance Statistics*, which is distributed to its correspondents in the MEFPT) a monthly summary statement of local

government transactions, something that is extremely rare, and it does so within 2 months. These monthly data are in part published in the monthly report of the Directorate of Economic Policy (DEPG). The TGR has also developed and implemented (TGR memorandum 84 of 24 August 2000) a program for collecting detailed annual/subannual data from local governments in an extremely ambitious standard format. The document "Consolidated Statement of Budgetary Central and Local Government accounts" dated January 10, 2002, describes the initial results, with a statement of accounts for local governments, aggregated and consolidated with that of the budgetary central government for the fiscal period July-December 2000. A similar report for fiscal year 2001 (January to December 2001) should be available in the near future. This information is intended to be compiled on a semiannual or quarterly basis.

The Ministry of the Interior also publishes annual data on local government prepared from its own sources, by compiling information from the payment authorization officer's administrative account. The Ministry of the Interior reconciles these data with those provided by the TGR, which relies on the accounts of the accountant.

Nevertheless, a greater effort would seem necessary (especially in terms of coordination and distribution of tasks) in order to provide a properly classified statistical presentation for the local government subsector that would also allow these data to be aggregated and consolidated with those for government as a whole (and not only the budgetary central government) and to establish a general government account.

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

The GFS follows the budget terminology as closely as possible. Preparation of the Table of Treasury Expenditure and Revenue is limited to minimal statistical reprocessing: reclassifications, regroupings and consolidation of accounting items. Taking the view that budget performance monitoring requires keeping closely in track with the budget presentation, statisticians do not break down items or correct the time of recording. Since recording times are consistent with budget accounting and presentation, and are close to the cash basis of the *GFSM 1986*, little reprocessing is necessary but this will not be the case if there is a gradual move towards the accrual accounting principle (before the switch to accrual accounting for the government accounts themselves).

Although the budget management systems do not provide for automatic calculation of the GFS, in practice the DTFE uses a simple computer program for calculating the Table of Treasury Expenditure and Revenue as soon as the source (accounting) data contained in the SPOT are reported to it by the General Treasury of the Kingdom. Nevertheless, this information is entered by hand, a fact that limits the degree of detail with which statisticians can work.

Both the time and the value at which transactions are recorded are on a cash (or pay-order) basis for revenue, expense and domestic and external financing. The method of valuing

certain components of domestic financing, however, deviates from this rule, since transactions involving financial liabilities are calculated by the change in the face value of stocks for long-term securities. For short-term securities, which are issued at their face value (coupon being post-counted), the Table of Treasury Expenditure and Revenue is completely in line with the *GFSM 1986*, which calls for recording interest at maturity. The *GFSM 2001* recommends prorated recording of interest during the life of the instrument (the accrual accounting principle).

The Table of Treasury Expenditure and Revenue (monthly) has the same scope as the budget presentation—with the recording of certain CSTs on a quasi-net basis (monthly). For example, with the incorporation of the SEGMA into the budget, these entities are now covered by the Table of Treasury Expenditure and Revenue.

3.1.3 Source data are timely

The public accountants attached to the TGR follow accounting instructions contained in the decree governing the public accounts. They prepare promptly the accounting statements, and these are centralized efficiently and automated by the TGR, which compiles complete statements (stocks and changes): the General Balance of Accounts and its annexes. The DTFE no longer receives these latter statements as it did in the past (monthly and annually), and now receives only the SPOT, which summarizes them. Officers managing the domestic and external debt data files cover all Treasury liabilities—except for deposits with the Treasury and statutory advances from Bank Al-Maghrib. Finally, the DEPP monitors the operations of public establishments and enterprises on an annual basis (and, less systematically, sub-annually) through its network of financial controllers and accountants, and publishes them in the Annex to the Finance Act.

The TGR public accountants are supposed to prepare vouchers and accounts within tight deadlines, even if this means recording uncertain transactions in suspense accounts. For this reason, among others, the cumulative monthly accounts data are systematically revised, although these revisions are generally of minor scope. Finally, the General Treasurer of the Kingdom is required, by Decree No. 2-00-292 of 20 June 2000 amending Royal Decree 330-66 of 21 April 1967 establishing general rules for public accounting, to report the definitive financial statements for the year within three months.

3.2 Statistical techniques

3.2.1 Data compilation employs sound statistical techniques

Given their currently restricted coverage and their relatively close relationship to the accounting basis, the GFS do not include estimates.

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

Not applicable.

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 non-sampling error; the results of the assessments are monitored and made available to guide planning

In compiling the annual statistics, the source data are not subject to any specific verification, since they rely on accounting data for only four institutional units (budgetary central government, CMR, RCAR, CNSS).

In the case of the Table of Treasury Expenditure and Revenue (cumulative monthly figures), the data are crosschecked with other sources of information, and this enriches the analyses.

Preparation of the monthly GFS reflects only in part the accounting revisions observed in the SPOT. For the sake of rapid processing, the public accountant uses temporary entries in suspense accounts during the course of the year, and these are subsequently eliminated in the following weeks. The financial statements are thus corrected over time, but the information available to the DTFE relates only to the cumulative figures to the last two months. Nevertheless, the revisions (after one month) are not systematically recorded in the DTFE, which limits itself solely to recompile data only in case of major revisions of accounting sources. The practice of the public accountant changes at the end of the year, since they must provide an audited management report for the December account which is thus not revised by the public accountant himself (but which can be corrected during the following stages of the reviewing procedure leading to the closure of accounts). In this context, the revised GFS are not published immediately by the DTFE, but appear the following year in its economic bulletin, which results from a presentation that is cumulative for one month only.

Such a revision policy does not seem to be consistent with recommended practice. Nevertheless, Bank Al-Maghrib publishes cumulative data for each month of the year in its quarterly bulletin. The sub-annual data sent to the IMF for publication in the *International Financial Statistics* (presented in a non-cumulative form) are corrected (one revision only, after one month).

It should be noted that this revision of the monthly accounting data and the non-systematic revision of monthly statistics create a distortion in the time of recording (subannual) but not in the amount to be recorded. These practices therefore have no impact on annual (or 12 months) operations (revenue, expenditure, deficit), which are appropriately traced.

At the DTFE, preparation of the GFS pays excessive attention to accuracy, at the expense of coverage and also of timeliness, to the extent that central government data are not readily or quickly available.

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 DTFE does not compare the GFS against data from the national accounts: no sector account have been available since 1987, and moreover there is a considerable difference in scope, with the national accounts covering all general government. Moreover, government consumption is not shown as an item in the *GFSM*, but must be derived from *GFSM* items with supplementary information.

The GFS can be compared by the DTFE with balance of payments statistics interest paid, net drawings on foreign loans, procurement of goods and services, which are compiled from other data sources.

The counterpart to privatization proceeds and to telephone licenses (purchased by a Moroccan subsidiary) is shown correctly under direct investments in the balance of payments.

The Table of Treasury Expenditure and Revenue of the DTFE and the data shown in the very complete *Monthly Bulletin of Government Finance Statistics* of the TGR can be reconciled. The TGR takes a “budgetary” approach, which consists of reporting on budget execution in accordance with parliamentary authorization. This approach requires adopting the budget classification and coverage, and excludes consolidation (in order to monitor transfers more completely). Receipts and expenditure in the Bulletin follow a classification by budgetary items including on-budget “borrowing receipts” and “debt repayments” (more than five years)—which affect the “totals” (total payments, total receipts). The many differences, sometimes for significant amounts,¹⁰ between the Table of Treasury Expenditure and Revenue of the DTFE and the *Monthly Bulletin of Government Finance Statistics* of the TGR are of a presentational nature, however, and derive primarily from the TGR’s more “budgetary” (and hence less “statistical”) approach. They do not appear to be too serious,

¹⁰ In October 2001, ordinary revenues from the DTFE table amounted to 104.1 billion dirhams, including 5.2 billion as VAT repayable to local governments, 2.6 billion in revenues from two special allocation accounts (food price support and the special highway fund) and 0.8 million for satellite budget revenues, corresponding to a corrected total revenue of 95.4 billion. Total receipts from the TGR bulletin amounted to 134.4 billion, including 11.1 billion in “receipts from borrowing,” 27.1 billion in revenues from the Special Treasury Accounts and 0.8 billion in revenues from satellite budgets, for a total of 95.4 billion in “definitive revenues.”

since this bulletin remains confidential. Nevertheless, should its use be extended, there would have to be substantial amendments in its presentation, or a more systematic explanation of the bridge between one source to the other.

3.4.2 Statistical discrepancies in intermediate data are assessed and investigated

The GFS are prepared on the basis of direct accounting sources.

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

Because financing is based on the balance to be financed, as taken from the non-financial accounts, any potential discrepancy is eliminated. Similarly, financing relating to Bank Al-Maghrib as well as other credit institutions is taken directly from the data of Bank Al-Maghrib. Nevertheless, nonbank financing is compared with data available elsewhere: insurance and mutual fund positions of the government, on one hand, and monitoring commercial debts and accounts payable/receivable taken from the General Balance of Accounts, on the other hand.

3.5 Revision studies

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

Revisions are not subject to study. The cumulative monthly GFS are not systematically revised to reflect changes in the underlying accounting data except for large amounts; this would affect the timing and not the amount of recording. (see 3.3.1)

4. Serviceability

4.1 Relevance

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

The Table of Treasury Expenditure and Revenue is used intensively at all stages of the budgetary process:

- Memorandum introducing the Finance Act, prepared by the DTFE and submitted to the Council of Government.
- Internal meetings for preparing the budget.
- Economic and financial report attached to the budget.
- Monthly monitoring of budgetary performance.

The classification, the level of detail and timing of publication and even more so of production itself, all seem to meet the needs of the public authorities. The Table of Treasury Expenditure and Revenue balance (GFS) fits their analytical needs better than the surplus of payments over receipts or of receipts over payments as shown in the Finance Act which is mainly of use for budgetary purposes. Nevertheless, the general public has much more limited access to the information: no data are readily available on an annual basis, and only the principal aggregates are available on a monthly basis financing is only published by Bank Al-Maghrib; and there is no semiannual information on the external debt, although this is reported to the IMF. The information that is published is not sufficient to meet analytical needs.

Moreover, observers may have trouble using this information because of its limited scope and the many formats in which it is presented. For example, the only balance of Bank Al-Maghrib's Table of Revenues, Expenses and Coverage of Financing Needs of the Treasury is on a cash basis, while the overall balance from the Table of Treasury Expenditure and Revenue of the DTFE excludes transactions in arrears (lodged in financing). The DEPG report provides some GFS series that do not appear in the Table of Treasury Expenditure and Revenue. The monthly TGR bulletin mentions an external debt of the Treasury which is not consistent with the accepted standard, nor in line with that of the DTFE: the stock of debt is not revalued and does not include "direct debt," i.e., debt contracted without movement of funds through the Treasury account.

4.2 *Timeliness and periodicity*

4.2.1 *Timeliness follows dissemination standards*

The monthly GFS are produced within one month and generally published within two months on the DTFE website.¹¹ The timeliness is therefore well within the 3 months recommended by the GDDS (SDDS within 1 month). The Monthly Bulletin of Government Finance Statistics of the TGR, which includes several tables and commentaries covering local government as well, is sent to "correspondents" (MEFPT within 1 month and 2 months for local government data). These data are not disseminated to the public.

Statistics on the Treasury's domestic debt are published within two months (1 month in the TGR Bulletin). Nevertheless, the stock of external debt is published in Morocco only on an annual basis (calculated semiannually) within 3 months which is well within the 6 to 9 months recommended by the GDDS (SDDS: 3 months). The breakdown by instruments, counterparts and maturity is satisfactory. The coverage of central government debt is incomplete: the debt of the ODAC is not included, either for stocks or transactions.

¹¹ The main aggregates of the Table of Treasury Expenditure and Revenue are also published in the Monthly Report of the DEPG, sometimes before the Economic Bulletin of the DTFE is posted, if the latter is late.

The DTFE nevertheless publishes guaranteed debt data on an annual basis that cover debts of the EPA, EPIC and public corporations and local governments.

Morocco does not produce statistics on general government or on the public sector (apart from external debt contracted or guaranteed by the Treasury),¹² despite the existence of various sources. The annex to the Finance Act provides interesting information on the EPA, the EPICs and public corporations.

Central government statistics are not published in any Moroccan statistical bulletin. Morocco however currently provides the data to the IMF on an annual basis within 18 months of the reference period. The data provided are incomplete, since they do not include ODAC. These annual data are published by the IMF, but not by Morocco.

4.2.2 Periodicity follows dissemination standards

The monthly GFS cover only the budgetary central government (“Etat” in the statistical sense). The annual data, which are compiled (and published in the *GFSY 2001* of the IMF) with a broader scope, as required by the GDDS, are not published in Morocco.

No statistics are published on general government or the public sector, as required by the SDDS and recommended by the GDDS.

The domestic debt of central government is published monthly (but does not cover the ODAC).

Transactions on the government external debt are published on a monthly basis, two months after the reference period. The amount outstanding of the government external debt is published annually and authorities indicated that they are in a position to publish it semi-annually.

The SDDS requires quarterly publication of debt, while the GDDS requires annual disclosure.

4.3 Consistency

4.3.1 Statistics are consistent with the dataset

The deficit/surplus is equal to financing. The main aggregates are equal to the sum of their components.

¹² Public entities may borrow without a Treasury guarantee, as is currently the case for local government borrowings from the Community Facilities Bank (FEC).

Nevertheless, the presentation of the Table of Treasury Expenditure and Revenue of the DTFE is quite confusing, since neither the “net balance of other special accounts” nor the “expenditure of the Hassan II Fund” (at least until 2001) are covered in “total expenses,” while they are covered in “overall deficit/surplus.” This creates a problem for the reader, as “overall deficit/surplus” is not simply the difference between “ordinary revenues” and “total expenses,” although according to the authorities these points are well understood by users.

Domestic financing does not articulate well with domestic debt: while transactions in domestic liabilities are calculated by the change in stocks, the stocks of domestic debt do not cover deposits with the Treasury or statutory advances from Bank Al-Maghrib (or accounts payable). The relationship between external financing and external debt is plausible.

Given the narrow coverage, the question of consistency for intra-government transfers does not arise.

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

Neither the Table of Treasury Expenditure and Revenue nor the annual GFS (in *GFSY*) are revised backwards to avoid breaks in the series:

- The post-1995 breakdown of capital expenditure (which was formerly attributed entirely to investment) between investment and transfers has not been revised backwards (annual GFS)).
- The budgeting of the SEGMA since 2000 has not been revised backwards.
- The introduction of a discrepancy between the budget year and the calendar year in 1995, followed by the return to the calendar year as of 2001, has led to a recalculation effort, but only internally, despite requests from users.

Breaks in the series are not systematically indicated in the tables, but are discussed in the analytical notes.

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

The government finance statistics are widely held to accord with the monetary and balance of payments statistics. Reconciliation with the national accounts is more difficult because of differences in scope and definition.

4.4 Revision policy and practice

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

Revisions to the GFS do not follow a pre-announced schedule. The revision policy is not explained.

4.4.2 Preliminary data are clearly identified

To the extent that data are hardly revised at all, preliminary data are not identified as such.

4.4.3 Studies and analyses of revisions are made public

The rare revisions to the GFS are not subject to specific studies.

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 GFS are published in monthly analytical notes of a general economic nature that are relatively well presented and that include tables, graphs and comments. Nevertheless, these analytical notes, which are produced by at least four separate directorates of the MEFPT and the MPEP, and by Bank Al-Maghrib, do not always follow the same format, and this can lead to a degree of confusion and make it more difficult for users to follow the performance of government finances.

For example, the item “Total Expenditure” in the Table of Treasury Expenditure and Revenue of the DTFE does not cover “net balance of other special accounts” or “expenditure of the Hassan II Fund,” while these items are covered in the item “total budgetary expenses” from the Table on Revenues, Expenses and Coverage of Financing Needs of the Treasury, produced by Bank Al-Maghrib. Moreover, occasional discrepancies are noted between these two tables in certain items, but they are generally minor.¹³

This information is presented as cumulative data, which facilitates interpretation when monitoring budgetary performance closely, since GFS classification is close to that of the budget.

Annual data for the last two or three budgets are published (in a GFS format) in the statistical annex to the economic and financial report accompanying the Finance Act. They contain a greater detail in terms of revenues than monthly data. The 1995 move to a budget year different from the calendar year, followed by the return to the calendar year as of 2001, has made these data much less useful (if only temporarily) for information purposes. Users would like to have statistics established on the same calendar basis.

¹³ Nevertheless, differences in presentation could be more systematically monitored, in order to spot any noticeable discrepancies in figures.

The scope of the monthly statistics, although narrow, is acceptable and the degree of detail is satisfactory (noting that financing details are published separately, and later, by Bank Al-Maghrib, while these should be published by the DTFE itself).

On the other hand, the coverage and detail for annual data are clearly inadequate. Annual government finance statistics that follow the rules of the *GFSM 1986* are compiled and made available in the IMF *GFSY 2001*, but are not published in Morocco.

The historical monthly time series are not published by the MEFPT, but are available on request (the quarterly bulletin of Bank Al-Maghrib, however, publishes cumulative monthly figures during the year).

5.1.2 Dissemination media and formats are adequate

There is no annual MEFPT publication summarizing the GFS data. The DTFE is considering reviving publication of the *Fascicule* of annual government finance statistics, which was suspended in 1995.

The monthly Economic Bulletin for December (published in March of the following year) provides supplementary information on outstanding external debt, as well as the three usual monthly tables as at December (covering twelve months): Table of Treasury Expenditure and Revenue, Table on Internal Debt, and Table on External Debt Service.

The quarterly bulletin of Bank Al-Maghrib provides annual statistics for the last five calendar years: highly aggregated data for expenditure, revenues, domestic and external financing, as well as satisfactory detail on debt (broken down by residence, banking/nonbanking counterpart and maturity). As well, this quarterly bulletin provides cumulative monthly data during the year, with satisfactory detail on expenditure and revenue (some 20 items), and financing (some 20 items). Finally, special issues of Bank Al-Maghrib's Statistics Bulletin (1983-1993 and 1994-1997) repeat annual data from the same series, as published in the quarterly bulletin.

The GFS are published on a cumulative monthly basis in tables attached to the analytical bulletins of the various directorates of the MEFPT and the MPEP:

- Economic Bulletin (DTFE)
- *Monthly Bulletin of Government Finance Statistics* (TGR)
- *Tableau de Bord Mensuel* [Monthly Scorecard] (DEPG)
- *Repères Statistiques* [Statistical points of reference] (monthly publication of the DS)
- *La Note de Conjoncture* (Programming Directorate)

These notes are available at the agencies' respective websites.

The monthly GFS are not available on a multiyear historic basis either in hard copy or on the websites. However, the DTFE is willing to provide the series to the public upon request—a procedure that is neither very effective nor publicized.

5.1.3 Statistics are released on a preannounced schedule

There is no such schedule.

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

The monthly GFS are examined by the CCF-Treasury. After validation by the DTFE director, the presentation note and the tables are sent to the publication unit for dissemination at the same time as they are sent to the minister and made available to users. Nevertheless, given the long delay in actual publication of the DTFE's economic bulletin, the public has access to these data only with much delay, and sometimes through the "Monthly Scoreboard" of the DEPG (only partial information).

A press conference on the results for the year is traditionally held in early February, using the GFS presentation.

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

On request, the DTFE makes more detailed, unpublished series available to the public, and in particular the recapitulative monthly series (revised as necessary), a practice that is neither very effective nor 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

There is no documentation currently available, but the authorities indicate that the public is well aware that the Table of Treasury Expenditure and Revenue is prepared in accordance with the *GFSM 1986*.

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

No documentation is currently available.

5.3 Assistance to users

5.3.1 Contact person for each subject field is publicized

No contact person is indicated, but officials are available to respond to users' questions.

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

No catalogue is available.

Table 1.4. Morocco—Data Quality Assessment Framework: Summary of Results for Government Finance Statistics
(Compiling agency: Ministry of Economy, Finance, Privatization and Tourism)

Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Practice Not Observed; SDDS = Complies with SDDS Criteria							
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		Lack of clarity in institutional arrangements regarding responsibility for production and dissemination of GFS.	
0.2 Resources		X					
0.3 Quality awareness			X			Statisticians focus primarily on accuracy, at the expense of other dimensions of quality.	
1. Integrity							
1.1 Professionalism		X					Description of institutional arrangements and of the cycle for preparing, validating and disseminating the GFS in the annual <i>Fascicule</i> ; more systematic mention of sources in the statistical tables.
1.2 Transparency			X			Provisions governing the collection, processing and dissemination of data are neither explicit nor publicized. Attribution of GFS should be more systematically cited.	
1.3 Ethical standards		X					
2. Methodological soundness							
2.1 Concepts and definitions			X			The GFS are compiled in accordance with the general principles of the <i>GFSM 1986</i> , with some significant deviations (classification and coverage).	
2.2 Scope				X		The GFS covers only budgetary central government; extrabudgetary funds, social security agencies and local government are not covered in the published statistics. The degree of detail (monthly) is satisfactory, although a large part of statistics compiled is not released to the public.	Consolidation of government finance statistics (central government, local government, pension and social insurance agencies). June 2003.

Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Practice Not Observed; SDDS = Complies with SDDS Criteria						
Element	NA	Assessment			Comments on Assessment	Plans for Improvements and Target Dates
		O	LO	LNO		
2.2 Classification/sectorization			X			
2.4 Basis for recording		X				A gross consolidated (instead of net) approach to be adopted for monitoring execution of the Finance Act (general budget, Special Treasury Accounts, satellite budgets and SEGMA). December 2002.
3. Accuracy and Reliability						
3.1 Source data		X				
3.2 Statistical techniques			X			
3.3 Assessment and validation of source data		X				
3.4. Assessment and validation of intermediate data and statistical output		X				
3.5 Revision studies				X		The cumulative monthly GFS are not systematically revised to reflect changes in the underlying accounting data except for large amounts; this would affect the timing and not the amount of recording.

Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Practice Not Observed; SDDS = Complies with SDDS Criteria						
Element	NA	Assessment			Comments on Assessment	Plans for Improvements and Target Dates
		O	LO	LNO		
4. Serviceability						
4.1 Relevance			X		The available GFS are well-suited to monthly monitoring of budgetary performance. Nevertheless, the needs of other users in Morocco and abroad are only partially met: government coverage is narrow, publication is fragmentary, presentation is sometimes non-standard.	
4.2 Timeliness and periodicity		X				Quarterly calculation and publication of external debt of the Treasury and of total debt (domestic and external). Publication of details on financing in the Table of Treasury Expenditure and Revenue (as of the January 2002 bulletin). Posting of the Table of Treasury Expenditure and Revenue, with appropriate commentary, on the website within 30 days of the reference date.
4.3 Consistency			X		The monthly GFS are not revised to bring them into line with the annual data (<i>GFSY2001</i>). Domestic borrowing does not articulate well with domestic debt. There are breaks in the time series.	
4.4 Revision policy and practice			X		The DTFE publishes any revised monthly GFS only in the next relevant monthly publication, that is <i>de facto</i> after twelve months, although they are available on request. The revision policy is not explained.	Inclusion of the last month but one (revised) in the Table of Treasury Expenditure and Revenue.

Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Practice Not Observed; SDDS = Complies with SDDS Criteria						
Element	NA	Assessment			Comments on Assessment	Plans for Improvements and Target Dates
		O	LO	LNO		
5. Accessibility						
5.1 Data accessibility				X	The published GFS relate only to the latest cumulative month-to-date. The historical series of monthly GFS and the detailed annual statistics are available only on request. There is no publication schedule.	Posting of long time series on the DTFE website. Revival of an improved <i>Fascicule</i> for annual statistics covering central government and subsequently all levels of government.
5.2 Metadata accessibility				X	No document on sources and methods is prepared or published, as the authorities feel that the <i>GFSM 1986</i> guidelines used for GFS compilation are widely known.	Supplement to the <i>Fascicule</i> on government finances, with an annex on sources and methods.
5.3 Assistance to users			X		No name or telephone number is shown in MEFPT publications or on its website, but officials respond promptly to users' requests.	Indication of contact person or telephone number in the Economic Bulletin.

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*

Bank Al-Maghrib is responsible for collecting source data, processing and disseminating monetary statistics for Morocco. This responsibility is spelled out in its Charter (Decree No. 1.59.233 of 30 June 1959 creating Bank Al-Maghrib, Chapter II—Purpose and Functions), Article 5 of which states that Bank Al-Maghrib “is to compile statistics on money and credit.” Thus, Bank Al-Maghrib is explicitly required to compile monetary statistics, and has an implicit responsibility to disseminate them.

Within Bank Al-Maghrib, the Research Department (DE), with its organization and powers redefined by Circular No. 18/G/96 of 22 October 1996, is responsible for compiling and disseminating monetary statistics for Morocco. The DE is also responsible of monitoring the economic and financial situation, preparing forecastings and producing the annual report of Bank Al-Maghrib. The DE consists of the Information and Publications Service and three divisions: (i) the Division of Economic and Financial Research, (ii) the Division of Statistics and Macroeconomics Research, and (iii) the Division of Monetary Research (DEM). The DEM decides the methodology for preparing the monetary statistics as well as the financial aggregates for the economy, it compiles monetary statistics and it helps with the preparation of studies relating to monetary policy, examines the activity of domestic capital markets, and cooperates in studies involving institutional aspects of financial institutions and their activity.

In compiling the monetary statistics, the DE receives the summary financial statement of Bank Al-Maghrib from the Department of Budget and Central Control (DBCC), and the aggregated financial statements of the banks from the Department of Credit Institutions Control (DCEC). The DE receives directly the source data from the following external institutions: the National Savings Bank (CEN), Postal Checking Service (SCP) and the Treasury’s deposits from the DTFE.

Monetary and financial statistics for Morocco are disseminated in the monthly publication, *Statistiques Monétaires* [“Monetary Statistics”], the quarterly Bulletin, and the Annual Report. They are also posted on the Internet site of Bank Al-Maghrib, which was recently made accessible to the public (www.bkam.ma).

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

Credit institutions are required to submit their financial statements to the DCEC in magnetic or paper format within the deadlines stipulated in Circular No. CN 13/G./99 of 3 December 1999 on procedures for preparing and transmitting account balances and financial statements

and their annexes to Bank Al-Maghrib, Circular No. 4/DCEC/99 of 14 December 1999 on practical procedures for transmitting account balances and financial statements and their annexes, and Circular No. 14/G./2000 of 16 November 2000 on procedures for transmitting summary statements and supplementary documentation to Bank Al-Maghrib. The summary financial statements for credit institutions and their accompanying documentation are compiled in accordance with the new chart of accounts for credit institutions (PCEC), which came into force in January 2000. Data on SCP and CEN deposits are submitted through bilateral agreements, since those institutions are not subject to the provisions of the Decree Law No. 1-93-147 of 06/07/93 on the activities and control of credit institutions.

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

According to the Charter of Bank Al-Maghrib, "all persons involved in any capacity in the direction, administration, control and management of the Bank are bound by professional secrecy" (Chapter IV-Administration, Direction, Supervision and Control of Accounts, Art. 61).

In accordance with its personnel statute (Art. 16), "in addition to the professional secrecy by which they are bound under criminal law, agents are required to exercise professional discretion in all matters relating to the facts and information that come to their knowledge in the exercise of or on the occasion of performing their duties." The agents are forbidden, without the Governor's approval, to publish, disclose, transmit, or use for their profit or a third party's profit, the documents or information they might come into contact with during the performance of their duties. Article 19 of the statute provides disciplinary measures, without prejudice to possible judicial proceedings.

The DE enforces the principles of statistical secrecy, and publishes only aggregate data on other depository corporations (ODC).

Source data are accessible only to DEM agents, and access to the electronic files is protected by passwords. Measures are in place to ensure the security of the premises and computer systems of Bank Al-Maghrib.

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

According to the banking law (Decree Law No. 1-93-147 of 06/07/93 on the activity and control of credit institutions, Title II, Chapter I, Article 46), "Bank Al-Maghrib may require agencies under its control to communicate all documents and information necessary to the fulfillment of its mission. It will establish the list, model and deadlines for submission."

Article 33 of the banking law stipulates that "the chart of accounts and the model of summary statements covering the balance sheet, statement of earnings, statement of management balances, table of financing and statement of supplementary information, are determined by decree of the Minister of Finance, on the advice of Bank Al-Maghrib." Article 36 of the law

provides that “credit institutions are also required to keep accounting balances, statements of assets and liabilities and supplementary information, as well as any other document that allows Bank Al-Maghrib to exercise control pursuant to this decree and the decree creating that institution. These documents, which are prepared in accordance with fixed standards, in individual and consolidated form, as well as with the models issued by Bank Al-Maghrib, are to be prepared and reported to Bank Al-Maghrib on the dates that it determines.” The regulatory deadline for submitting monthly financial statements to the DCEC is 15 calendar days.

Article 90 of the banking law stipulates that “any person acting as a representative of a credit institution or any corporation or finance company knowingly providing false information to Bank Al-Maghrib is liable to a fine of 10,000 to 500,000 dirhams.”

There are deficiencies in the reporting of banks’ financial statements to the DCEC. On June 2001, Bank Al-Maghrib adopted Circular No. 9/G/2001 on financial penalties applicable to credit institutions, defining violations and their penalties. Violations include: failure to respect the document models for the collection of periodic financial statements and any other document fixed by Bank Al-Maghrib; nonconformity of magnetic supports for the transmission of documents; and delay in the transmission of documents (1000 or 2000 dirhams for each day of delay).

Generally, the DCEC is the unit which has direct relations with the banks. The DE receives almost all information related to banks from the DCEC (in an aggregated form). The DCEC also provides the banks with aggregate information at the regional level (deposits, credits, the number of branches per city).

0.2 Resources

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

The DE has a staff of 35 employees (at 2 January 2002). The DEM has a staff of 8 employees, of whom three work directly on the preparation of monetary statistics, which seems inadequate in light of the workload. Personnel can take training courses organized by the Department of Professional Training and Documentation of Bank Al-Maghrib as well as courses organized by the IMF and other international organizations or foreign central banks. The manager directly responsible for supervising monetary statistics participated in the seminar on monetary statistics organized by the IMF in 2000.

Each of the employees responsible for monetary statistics has access to a computer that is connected to Bank Al-Maghrib’s network (the computer network was introduced in 1995). The processing of source data and the calculation of monetary statistics is done in Excel.

The DE has its own budget, but it is not allocated among the three component divisions of the DE in advance.

0.2.2 Measures to ensure efficient use of resources are implemented

Bank Al-Maghrib strives to improve its working methods, holding regular consultations among its units involved in compiling monetary and financial statistics for Morocco (primarily the DE, the DCEC and the DBCC). These units work in concert, particularly when it comes to large-scale projects such as reforming the chart of accounts for credit institutions (January 2000).

In the process of compiling monetary statistics, the DE uses computer modules developed on Excel for detecting processing errors.

One example of the sound use that is made of modern computer technologies is the Internet site, which has been accessible to the public since mid-December 2001, and which disseminates the monetary statistics, among others.

Bank Al-Maghrib, however, does not have any procedure for monitoring cost-effectiveness.

0.3 Quality awareness

0.3.1 Processes are in place to focus on quality

Within Bank Al-Maghrib, there is wide recognition that quality constitutes a pillar of sound statistical work.

Considerable efforts have been invested in the new chart of accounts for credit institutions that came into effect in January 2000, the principles of which are based on International Accounting Standards (IAS 2000) and in fact Bank Al-Maghrib has undertaken a revision of its own chart of accounts. Within Bank Al-Maghrib, there is a government auditor who oversees the Central Bank's activities on behalf of the government. There are also the so-called "censors" (who may never number less than two) who have unlimited rights to inspect written documents and inventories of the Bank.

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

The DCEC of Bank Al-Maghrib, which collects monthly financial statements from the banks, verifies the data and transmits them in the form of an aggregated financial statement to the DE. Control over data consistency is automated, and the banks are asked for clarification as required (e.g., late submissions or clarification on unusual reporting).

The monetary statistics series are verified systematically and automatically, particularly at the M1 aggregate level, but also at the level of other aggregates, particularly M3 and its external counterparts (net foreign assets) and domestic counterparts (domestic credit divided into claims on government and credit to the economy).

To date, Bank Al-Maghrib has not conducted any user surveys, although it is open to any request for information on monetary statistics from external users. The authorities indicated to the mission that they planned to hold a seminar with users.

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

Monetary statistics are compiled and disseminated in provisional and definitive versions, which are identified as such. However, the nature of revisions is not explained in the publications.

Bank Al-Maghrib strives to improve the quality of data on several fronts: integrity, methodological soundness, accuracy and reliability, serviceability, and accessibility. For instance, the plans for all DE over the short term are to adopt the *Monetary and Financial Statistics Manual (MFSM)* published by the IMF in 2000. The adoption of the *MFSM* has already started. There is a special focus to reduce the timeliness of the monetary statistics and to increase their accessibility.

1. Integrity

1.1 Professionalism

1.1.1 Statistics are compiled on an impartial basis

Bank Al-Maghrib indicates that it is not subject to any outside interference or pressure in the process of preparing and disseminating the monetary statistics and that the statistics are compiled with complete impartiality. The Governor of Bank Al-Maghrib is appointed by decree.

Bank Al-Maghrib recruits its staff through competition or examination. New recruits are given internal training within Bank Al-Maghrib and must take an examination at the end of this training. Examinations are also required for professional promotion. Employees are encouraged to enhance their professional level: they may take training courses and seminars, and attend conferences and meetings with other experts.

Studies published in the quarterly bulletin are not signed, but the departments in which the authors work are mentioned (except the DE, which produces the bulletin but is not explicitly mentioned).

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

The monetary and financial statistics for Morocco are consistent overall with the principles set forth in the *Guide to Monetary and Banking Statistics Published in the IFS (1984 Guide)*. The current source data coverage is sufficient to meet the requirements of the *1984 Guide*

methodology, as well as those of the *MFSM* methodology (planned to be implemented). The selection of source data and statistical techniques is based exclusively on statistical considerations.

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

In the case of erroneous interpretations or misuse of monetary statistics, while Bank Al-Maghrib is entitled to issue comments, the authorities indicated that such situations are rare. The published monetary and financial statistics are accompanied by explanatory notes to avoid any erroneous interpretations.

1.2 Transparency

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

The law creating Bank Al-Maghrib—as it has been modified—is published in Official Bulletin No. 4223 of 6 October 1993. It gives Bank Al-Maghrib the responsibility of compiling the statistics on money and credit. Within Bank Al-Maghrib, the responsibility of designing the methodology and preparing the monetary statistics is given to the DE.

While the Bank's website includes the statutes of Bank Al-Maghrib and the banking law, the site does not have a section dealing with conditions and provisions governing the processing and dissemination of monetary statistics.

However, Bank Al-Maghrib's statistical publications and website provide the address, e-mail and telephone and fax numbers for the DE.

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

The authorities indicated that government officials have no access to data before their release.

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

The monetary statistics are released in publications of Bank Al-Maghrib (monthly publication, quarterly bulletin and annual report) under its name and with explicit reference to it. The monthly publication makes specific reference to Bank Al-Maghrib and the DE. Since December 2001, monetary statistics are also posted on Bank Al-Maghrib's website. Statistics from other statistical producers are explicitly identified if they are included in publications of Bank Al-Maghrib. As well, Bank Al-Maghrib statistics are clearly attributed to the Central Bank when they are reproduced by other institutions.

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

To date, any methodological changes deemed to be major have been notified at the time the data are published, rather than in advance. For example, the methodological reform to the monetary statistics in 1998 (which resulted in a new presentation of the monetary statistics and an expansion of their scope) was presented in a note attached to the monetary statistics for February 1998, addressed to users and published in the Quarterly Bulletin of Bank Al-Maghrib No. 81 of March 1999. In the case of minor changes, they are generally presented in the form of footnotes to the statistical tables.

Nevertheless, with the planned switch to the *MFSM* methodology, which is considered a major change, advance information will be provided to users.

1.3 Ethical standards

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

Employees of Bank Al-Maghrib are subject to professional secrecy under pain of penalties pursuant to criminal legislation (Article 61 of the Statutes of Bank Al-Maghrib and Article 107 of the banking law).

The personnel statute provides, in Article 12, that “it is prohibited for any agent to exercise, on a professional basis, any private remunerated activity of any nature, except with the prior authorization of the Governor. This authorization is exceptional and revocable at any time in the interest of the service.” Pursuant to Article 13 of that statute, “agents of all ranks are prohibited from serving as directors or fulfilling any function in a commercial enterprise.” Article 14 of the personnel statute declares that “it is prohibited for agents to damage, through their behavior or actions, the reputation of the Bank, the dignity of their colleagues and their own credibility.” Article 15 provides that “agents are required to conduct themselves strictly in accordance with the rules of labor hygiene and the security instructions applicable within the Bank.” The personnel statute also provides penalties for agents who contravene its provisions.

When they are recruited, Bank Al-Maghrib staff are sensitized to respect the ethical rules, to which they must commit themselves in writing.

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 monetary and financial statistics for Morocco are consistent overall with the principles set forth in the *1984 Guide*. Bank Al-Maghrib intends to take the necessary steps to apply the *MFSM* methodology.

The monetary survey is a consolidation of the accounts of depository corporations, i.e., Bank Al-Maghrib (headquarters and 20 agencies), the 19 banks, the Treasury (deposits), the Postal Checking Service (deposits) and the National Savings Bank (deposits). Monetary statistics for Morocco do not currently cover other financial corporations: insurance companies and pension funds, finance companies, offshore banks, financial auxiliaries. According to the new *MFSM*, finance companies, which numbered 49 in December 2001 and accounted for 10 percent of total domestic credit, should be classed as other financial intermediaries. Their operations should be included in a *financial corporations survey* that would extend the coverage beyond the central bank and ODC currently covered in the monetary survey.

The monetary aggregates identified in the monetary survey are: M1 (currency in circulation and demand deposits); M2 (M1 plus savings deposits) and M3 (M2 plus term holdings with the banking system in the form of fixed-term accounts and notes and certificates of deposit). The counterparts to M3 identified in the monetary survey are: net foreign assets, total domestic credit (claims on government and net lending to the economy), and the balance of other items.

2.2 Scope

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

The coverage of the monetary survey currently prepared by Bank Al-Maghrib is adequate and will not have to be changed with the move to the *MFSM*. For the subsector of ODC, coverage includes all resident financial corporations and quasi-corporations (except for the Central Bank) that are engaged primarily in financial intermediation and that issue liabilities that enter into the national definition of broad money. The national definition of broad money is a fundamental concept of the new methodology. In Morocco, broad money includes liabilities of Bank Al-Maghrib, the banks, the SCP (deposits), the Treasury (deposits) and the CEN (deposits). Monetary statistics cover the transactions of the headquarters of depository corporations as well as all their domestic agencies.

2.3 *Classification/ sectorization*

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

Morocco's systems for classifying assets and liabilities and for the sectorization of economic units reflect the principles included in the *1984 Guide*. The monetary statistics methodology stipulated in the *MFSM* is based on the classification and sectorization systems adopted in the *1993 SNA*.

For the time being, in Morocco's monetary statistics the breakdown of domestic credit shows only two positions: claims on government and net lending [*concoeurs*] to the economy (all other resident institutional sectors).

However, the banks are required to send Bank Al-Maghrib monthly reports including the following annexes:

- Annex 009, "Breakdown, by residence and category of economic agent, of claims on non-financial clients," which provides data on credit for residents (public sector, private corporations, individual entrepreneurs, private individuals, nonprofit institutions) and nonresidents (Moroccans residing abroad and other nonresidents).
- Annex 010, "Breakdown, by residence and category of economic agent, of debts to non-financial clients," which provides data on deposits by residents (public sector, private corporations, individual entrepreneurs, private individuals, nonprofit institutions) and nonresidents (Moroccans residing abroad and other nonresidents).

The classifications used in these annexes is consistent with internationally accepted standards.

According to the authorities, the detailed breakdown cannot be currently produced due to a few banks that do not report these annexes. The new chart of accounts for credit institutions, since January 2000, requires the banks to make additional efforts to adapt their computer systems to these new needs.

In general, sectorization uses the residence criterion as called for in the *Balance of Payments Manual*, fifth edition (*BPM5*), except for offshore banks that are treated as nonresident banks in the Moroccan data. This is a departure from the *MFSM* and the *BPM5*, where offshore banks are classed as other resident financial intermediaries (if their liabilities are not included in the national definition of broad money). While Moroccans residing abroad are nonresidents, their deposits with resident banks could be however treated as deposits for inclusion in broad money (see page 318 of the *MFSM*).

The system for classifying financial instruments is broadly consistent with the principles of the *MFSM*. Morocco's monetary statistics do not cover financial instruments such as

financial derivatives (to date, the transactions in financial derivatives in Morocco do not seem to be material).

In accordance with existing regulations, Bank Al-Maghrib engages only in firm purchases and sales of securities. In the case of repo transactions by the commercial banks, they are recorded as follows: i) the cash taker continues to show the transferred securities as an asset, and the amount received is recorded on the liability side as a debt, no earnings are recorded from the transfer and the securities continue to be valued according to the rules applicable to their category; ii) the cash provider does not record the securities on its balance sheet, but records the amount paid out as a claim on the assets side, in accordance with the principles of the *MFSM*.

2.4 Basis for recording

2.4.1 Market prices are used to value flows and stocks

The *MFSM* recommends valuing financial assets and liabilities at their market price or equivalent. As an exception, it recommends recording the entire loan portfolio at its book value, i.e., the value of loans is not adjusted for expected losses but contains the principal amount at its original cost plus accrued interest. Monetary gold should be valued at market prices and revaluations (i.e., holding gains or losses from financial instruments) should be recorded in the revaluation account.

The financial statements of Bank Al-Maghrib are prepared in accordance with the principles in its chart of accounts as of 1993 and updated in November 1999. In the case of the banks, their financial statements respect the principles of the new chart of accounts for credit institutions that came into effect in January 2000. Valuation methods depend closely on the fundamental accounting principles used, and in particular on principles of going-concern value [*continuité d'exploitation*], prudence and historic costs.

Monetary gold was revalued in September 1993 at a fixed price that has since been maintained.

Loans are valued at their book value, excluding accrued interest and without adjusting for expected losses through default.

Investment securities [*Titres de placement*] (securities acquired with a view to holding them for more than six months) are recorded at their purchase price, excluding accrued interest. Capital losses are provisioned and capital gains may not be taken into income nor used to offset capital losses on other securities. The difference between the purchase price and the redemption value of securities may be amortized over the residual life of the security, at the option of the institution.

Titres d'investissement [fixed-interest securities] are debt instruments acquired or arising from another category of security, with the intention of holding them until maturity in order

to receive regular income over an extended period of time. Such securities are recorded at their purchase price, excluding fees and any applicable accrued interest. However, if a financial institution opts to average the premium or discount according to the actuarial method, accrued interest will be included in the purchase price. For each accounting statement, capital losses are not provisioned and capital gains are not taken into income (there is no revaluation for this type of security).

Titres de transaction [trading or “transaction” securities] are notes that are originally acquired or sold with the intention of reselling or repurchasing them within a short time, in the context of market activity. Trading securities are recorded at the purchase price, including purchase costs and any applicable accrued interest. At each accounting statement, trading securities are valued at their most recent market quote. Net differences resulting from revaluation are taken into earnings.

The *MFSM* recommends establishing data on stocks as well as on each of the three components of flows: transactions, revaluations and other changes in asset volume. So far, Bank Al-Maghrib did not make estimates to derive flows on the basis of the stock data, as the banks do not currently provide information on the components explaining the flows. However, the chart of accounts of credit institutions, introduced in January 2000, includes a table of cash flows with the evolution, for each financial year, of the liquidities and their equivalent with a breakdown by activity, investment and financing. Credit institutions are required to publish and transmit the table of cash flows to DCEC, on annual basis.

SDR holdings are valued at the exchange rate prevailing on the market on the day of Bank Al-Maghrib’s financial statement. SDR allocations are valued at the exchange rate prevailing at the time the allocations are made, which is not in line with the *MFSM*. Generally, assets and liabilities denominated in foreign currencies are converted to national currency at the average market rate (the average between buyer and seller rates) for the last day of the month. However, banknotes in foreign currency are valued at the buying exchange rate of Bank Al-Maghrib.

2.4.2 *Recording is done on an accrual basis*

In general, accrued interest on deposits, loans and securities other than shares is not included in the outstanding amount of financial assets and liabilities in the Moroccan statistics; only accrued interest on savings deposits is included, on a quarterly basis. The *MFSM* recommends, however, that accrued interest on deposits, loans and securities other than shares should be incorporated into the outstanding amount of financial assets or liabilities (rather than being treated as part of other accounts receivable or payable).

Interest due but not paid (interest arrears or *agios réservés*) is currently classified under Others (they were formerly classified under loans in arrears, before the item “provisions-*agios réservés*” became available).

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

The source data used to compile monetary statistics in Morocco are collected and compiled on a gross basis, consistent with the general principle of the *MFSM*. However, loans granted by banks are recorded net of provisions for loss from default. Compromised claims (“*créances en souffrance*”) include provisions constituted to cover eventual losses, which is also consistent with the *MFSM* recommendations. Consistent with the *MFSM*, data on the financial assets and liabilities of Bank Al-Maghrib and ODC are collected on a gross basis. Regarding the way in which monetary data are presented, the monetary survey contains only the net data, but publications include tables where the data are also presented on a gross basis.

The depository corporations survey is obtained by eliminating all financial claims and liabilities between Bank Al-Maghrib and banks and among the banks, while retaining data on claims and liabilities with regard to: (i) nonresidents, and (ii) other resident domestic sectors (government and other resident sectors, including financial corporations other than depository corporations).

3. Accuracy and reliability

3.1 Source data

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

The source data used for compiling the monetary statistics are: (i) the summary financial statement of Bank Al-Maghrib; (ii) the aggregated financial statements of the banks; and (iii) statistical data on the deposits of nonfinancial enterprises and individuals with the Treasury and the SCP, as well as deposits in the CEN.

The DCEC, which receives the individual financial statements of the banks, verifies them and corrects any inconsistencies before providing an aggregate of the statements to the DE.

The source data are exhaustive: they are reported by all institutional units of the subsectors covered by the monetary statistics. These data accurately reflect the reality of monetary and financial transactions in Morocco.

Monetary statistics are compiled exclusively on the basis of financial statements, and no supplementary data are used.

The DE monitors the financial sector closely to integrate any significant changes in the monetary statistics. On this score, the 1998 reform of the methodology for the monetary statistics seeks to adapt them to changes in the financial sector in Morocco.

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

Source data are generally reliable. The authorities indicated, however, that the distribution of domestic lending by institutional sector (by categories of economic agents) is not compiled due to a few banks which do not transmit to DCEC the annexes with the required breakdown. Transactions of Bank Al-Maghrib and of the banks that cannot be classed by sector or by financial instrument are treated as “other assets” and “other liabilities.”

3.1.3 Source data are timely

The final summary financial statement of Bank Al-Maghrib is reported in paper format by the DBCC to the DE 15 to 20 days after the end of the month. The DE also receives the weekly report of Bank Al-Maghrib, prepared each Friday, which generally arrives the following Wednesday. The DBCC, which is responsible for compiling and disseminating the financial statement of Bank Al-Maghrib, receives a detailed report and a summary statement from the Computer Services Department (DI) in paper format, while all transactions of the DI are automated.

According to Circular No. CN13/G./99 of 3 December 1999 on procedures for preparing and transmitting financial statements with their annexes to Bank Al-Maghrib, the banks are supposed to report their monthly statements (financial position and related annexes) to the DCEC no later than 15 days after the end of the month. On a transitional basis, and until 31 December 2000, a delay of 20 days was tolerated in the recording of financial positions by credit institutions, because of the reforms to their chart of accounts. In fact, it takes longer for the banks to transmit their monthly financial statements to the DCEC, and some banks have encountered computer problems in preparing their statements. Consequently, the aggregated financial statements of the banks is reported by the DCEC to the DE in paper format about 35 days after the end of the period.

According to the authorities (DI), the financial statement of Bank Al-Maghrib and the aggregated financial statements of the banks could be transmitted electronically and used in Excel, thereby replacing the current hardcopy format.

Data on CEN and SCP deposits are reported to the DE 20 to 25 days after the end of the month. However, the last available data on treasury deposits and cash reserves date from May 2000 and these levels have been used since in the monetary statistics.

The monetary and financial statistics for Morocco are released monthly, 35 to 37 days after the end of the month (one or two days are needed to process the source data, compile monetary statistics and draft a short commentary on the behavior of the monetary aggregates).

3.2 Statistical techniques

3.2.1 Data compilation employs sound statistical techniques

The source data collection documents (in the case of the banks, they were revised after the new chart of accounts was adopted for credit institutions in January 2000) are adapted to computer processing (Bank Al-Maghrib has developed an application in Oracle). The DCEC, which receives the individual financial statements from the banks, has computerized procedures for detecting processing errors during its verification of these documents.

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

There is as yet no program for seasonal adjustment of the monetary aggregates, but Bank Al-Maghrib plans to introduce one, and is working with the DI to decide the software and the method to be used. The source data for the monetary statistics are exhaustive. However, the provisional version of the monetary statistics shows data from the preceding month for those banks that have not reported their financial statements on time.

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 non-sampling error; the results of the assessments are monitored and made available to guide planning

The source data for the monetary statistics used are taken exclusively from accounting sources; there is no resort to sampling.

Any questions about the quality of source data from the banks are addressed by the DCEC to the banks. In the case of the financial statement of Bank Al-Maghrib, the DBCC is responsible for checking that the Central Bank's accounts are in order.

DE statisticians monitor the behavior of markets and financial institutions and hold meetings with other directorates of Bank Al-Maghrib, such as the Credit and Capital Market Department, to analyze the market performance and its impact on the monetary statistics.

In compiling the monetary and financial statistics, the DE checks for consistency in the source data, in accordance with the concepts and basic principles of monetary and financial statistics (*1984 Guide*). Bank Al-Maghrib is planning to revise its presentation of the monetary statistics in accordance with the *MFSM*, and will take the steps necessary to fully apply the new IMF methodology.

3.4. Assessment and validation of intermediate data and statistical outputs

3.4.1 Main intermediate data are validated against other information where applicable

For purposes of verifying the monetary statistics, the DE uses other sources of data such as the balance of payments and government finance statistics.

3.4.2 Statistical discrepancies in intermediate data are assessed and investigated

There is no analysis of the provisional and definitive versions of the monetary statistics. The move from the provisional version to the final version involves simply the addition of late-arriving data (for one or two banks) to replace the data shown for the previous month.

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

In case of significant fluctuations in the money or credit aggregates, the procedure in place at Bank Al-Maghrib is to: (1) identify the bank at the source of such fluctuations; (2) request explanations of it; and (3) correct any errors as soon as they have been identified. The DCEC, which verifies the monthly financial statements of the banks, is responsible for investigating any errors or omissions. In the case of Bank Al-Maghrib's financial statement, the DBCC is responsible for resolving any problems.

3.5 Revision studies

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

Bank Al-Maghrib has no regular program for studying revisions to the provisional and final data, although any errors are analyzed and corrected.

4. Serviceability

4.1 Relevance

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

The contents of the monetary and financial statistics meet the authorities' needs of economic and financial analysis. There is, however, no regular exchange with other users. Moreover, because of the limited degree of detail in the breakdown of domestic credit, the monetary statistics go only partway to meeting users' needs.

Bank Al-Maghrib regularly participates in meetings and seminars organized by international and regional institutions.

4.2 *Timeliness and periodicity*

4.2.1 *Timeliness follows dissemination standards*

The monthly monetary surveys are released 35 to 37 days after the end of the month, which far exceeds the recommendations of the GDDS (2-3 months) and is close to the SDDS (30 days).

4.2.2 *Periodicity follows dissemination standards*

Morocco's monetary statistics are released monthly, which is consistent with the GDDS and the SDDS.

4.3 *Consistency*

4.3.1 *Statistics are consistent with the dataset*

The internal consistency of monetary statistics is guaranteed. Reciprocal claims and liabilities between the Central Bank and ODC are consistent. It is not currently possible to reconcile stock and flow data, since flow data are not collected.

Because the monetary and financial statistics do not cover all financial corporations, it is impossible to verify the consistency of reciprocal claims and liabilities between depository corporations and other financial corporations.

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

The most recent quarterly bulletin from Bank Al-Maghrib (No. 87 of March 2001) contains time series for M3 counterparts that are consistent over 20 years (1981-2000). A note on the 1998 reform was published in quarterly bulletin No. 81 of March 1999, explaining the reconstruction of the series back to 1981.

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

The DE performs reconciliation between the monetary and financial statistics and other statistics such as the balance of payments statistics and government finances statistics. Net foreign assets included in the monetary statistics are consistent with the measure of balance of payments flows. As well, there is overall consistency with comparable data on government finances statistics.

4.4 Revision policy and practice

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

The monthly data for Bank Al-Maghrib are final, while those for ODC may be provisional at first, and later final (data for the preceding month are carried forward to the current month for banks that report late). The monetary statistics are therefore disclosed initially on a provisional basis, and one month later on a final basis.

4.4.2 Preliminary data are clearly identified

Users are advised that the first data published are provisional (identified by the sign:**). The final data (identified as “corrected figures” and the sign:*) are published in the same manner and at the same level of detail as the provisional data.

4.4.3 Studies and analyses of revisions are made public

The provisional and final versions of the monetary statistics are not subject to study and analysis of revisions. The publications do not contain any notes explaining why the monetary statistics are presented in a provisional and a final version.

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 monetary statistics are published in Bank Al-Maghrib’s monthly publication, quarterly bulletin and annual report. Since December 2001, the monetary statistics are posted on the Internet site of Bank Al-Maghrib. Only the monthly publications and annual reports include charts and analyses of developments for the period of reference.

These publications contain several tables [with posted English titles as follows]:

- Monetary and liquidity investment aggregates
- Monetary aggregates
- Liquidity investments aggregates
- Counterparts of M3
- Net foreign assets
- Claims on government
- Net lending to the economy
- Financial statement of Bank Al-Maghrib
- Banks’ assets and liabilities

- Evolution of monetary and liquidity investment aggregates
- Evolution of counterparts of M3

Publications contain time series. The most recent quarterly bulletin of Bank Al-Maghrib (No. 87 of March 2001) contains time series for the counterparts of M3, consistent over 20 years (1981–2000). The monthly publication for November 2001 contains data for three months: October and November 2001 and December 2000. The time series are not adjusted for seasonal variations.

5.1.2 Dissemination media and formats are adequate

The monetary statistics are disseminated in the monthly publication (there is no press release in advance of publication) and, since December 2001, on the website of Bank Al-Maghrib. Longer time series can be accessed free of charge from the DE database.

5.1.3 Statistics are released on a pre-announced schedule

There is no previously announced calendar for publication of the monetary statistics, a situation that Bank Al-Maghrib intends to correct.

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

Bank Al-Maghrib has indicated that the data are released simultaneously to all interested users.

5.1.5 Nonpublished (but nonconfidential) sub-aggregates are made available upon request

The DE is prepared to meet requests for unpublished and nonconfidential data (for journalists, students, municipalities, researchers, research centers, embassies, etc.). This service is provided free.

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

Except for a brief explanatory note prepared for the 1998 reform, which was attached to the monetary statistics for February 1998 and was published in the quarterly bulletin No. 81 of March 1999, there are no metadata available to users. However, a short methodological note is attached to the monthly monetary data.

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

The DE does not currently have a complete document on sources and methods for compiling the monetary statistics, regularly updated and disseminated to users. The authorities have declared their willingness to prepare such a document and make it available to the general public (over Bank Al-Maghrib's website).

5.3 Assistance to users

5.3.1 Contact person for each subject field is publicized

Bank Al-Maghrib has not yet conducted a survey of users to test their view of the assistance available. The DE staff are available to users, however, for any assistance they may need on monetary and financial statistics. Bank Al-Maghrib's publications and its Internet site provided the address, telephone and fax numbers and e-mail for the DE.

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

Bank Al-Maghrib's publications are posted on its website. The list of users of publications in paper format is continuously updated to include new users and to provide them with all available publications. All Bank Al-Maghrib publications are sent free of charge to users such as the government, ministries, the Royal Cabinet and the King's economic advisers, the financial system, the press, research centers, individual researchers, universities, foreign embassies and Moroccan embassies abroad. Publications are also provided free of charge through the Information and Publications Service of the DE.

Table 1.5. Morocco—Data Quality Assessment Framework: Summary Presentation of Results for Monetary Statistics
(Compiling agency: Bank Al-Maghrib)

Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Practice Not Observed; SDDS = Complies with SDDS Criteria						
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		Staffing is inadequate.	Bank Al-Maghrib is considering an increase in the staffing of the Division of Monetary Research (DEM).
0.3 Quality awareness			X		Relations with users are inadequate.	
1. Integrity						
1.1 Professionalism		X				
1.2 Transparency			X		Provisions governing the processing and dissemination of data could be better explained to the general public.	
1.3 Ethical standards		X				
2. Methodological soundness						
2.1 Concepts and definitions			X		Concepts and definitions are not harmonized with the <i>MFSM</i> .	The authorities have indicated that they intend to apply the <i>MFSM</i> methodology completely over the medium-term.
2.2 Scope		X				

Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Practice Not Observed; SDDS = Complies with SDDS Criteria							
Element	NA	Assessment				Comments on Assessment	Plans for Improvements and Target Dates
		O	LO	LNO	NO		
2.3 Classification/sectorization				X		The degree of detailed in the breakdown of financial assets and liabilities by resident institutional sector is not sufficient (for example, domestic credit includes only two items: claims on government and credit to the economy). The residency criterion is not correctly applied in the case of offshore banks.	Bank Al-Maghrib has recently taken steps (Circular No. 9/6/2001 of June 2001) to insure that banks submit their financial statements in accordance with the models established by Bank Al-Maghrib.
2.4 Basis for recording			X			Accounts are recorded on a cash-flow rather than an accrual basis. In general, the international guidelines on valuation at market prices are not observed.	See 2.1.
3. Accuracy and Reliability							
3.1 Source data			X			The last data available for deposits with the treasury are for May 2000. The banks no longer report to the DCEC the annexes showing the distribution of domestic credit by institutional sector.	A new chart of accounts for credit institutions has been in place since January 2000. Among the measures undertaken in 2001, Bank Al-Maghrib will request a breakdown by sectors. See also 2.3.
3.2 Statistical techniques				X		The monetary aggregates are not seasonally adjusted.	Bank Al-Maghrib plans to introduce a program for seasonal adjustment of the monetary aggregates.
3.3 Assessment and validation of source data		X					
3.4. Assessment and validation of intermediate data and statistical output		X					
3.5 Revision studies			X			Bank Al-Maghrib does not perform studies on revisions, and missing data from banks (one or two) are imputed from the previous month.	

Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Practice Not Observed; SDDS = Complies with SDDS Criteria							
Element	NA	Assessment				Comments on Assessment	Plans for Improvements and Target Dates
		O	LO	LNO	NO		
4. Serviceability							
4.1 Relevance			X			The needs of monetary statistics users are only partially met (for example, the lack of breakdown of domestic credit by institutional sectors and by economic activity).	
4.2 Timeliness and periodicity		X					
4.3 Consistency		X					
4.4 Revision policy and practice			X			Revision policy is not published.	
5. Accessibility							
5.1 Data accessibility			X			No calendar to announce release dates in advance.	Bank Al-Maghrib is considering preparing and publishing a calendar to announce release dates in advance.
5.2 Metadata accessibility				X		There are no metadata or detailed methodological documents available to the public.	Bank Al-Maghrib intends to prepare and publish a full methodological document and to keep it up to date.
5.3 Assistance to users		X					

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*

The responsibility for compiling balance of payments statistics is not legally entrusted to a specific agency. In practical terms, however, the task of collecting information and compiling data on foreign trade and the balance of payments is related to Morocco's exchange control regime and is entrusted to the Foreign Exchange Office (OC). The statistical work that the OC has been performing for many decades is publicly recognized as falling under its responsibility. Although there is no legislative basis for the statistical responsibilities of the OC, this has not so far inhibited its capacity to compile statistics on the balance of payments.

This statistical responsibility of the OC is reflected in the relationships established with data supply agencies, in particular the banking system, the customs administration and various government entities and other major economic entities.

Draft legislation giving the OC the necessary legal authority to compile the balance of payments and the international investment position was prepared in July 2001. The OC reports that this draft has been examined at the level of the Ministry of Economy and Finance, along with the other data producers and relevant departments.

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

Procedures for data sharing with agencies that provide source data are generally well established and efficient mechanisms are in place for ensuring that data are received in a timely manner.

A computerized system enables the OC to collect customs data on imports and exports of goods without delay. The information is received on a daily basis, and covers 20 customs offices representing about 97 percent of the value and volume of customs declarations. Another 10 customs offices are not computerized and their data are centralized and captured electronically at the customs Office of Casablanca Port and transmitted on diskettes within 15 to 20 days to the OC. They are of little significance for the foreign trade figures, however. A paper copy of the customs document is also received at the OC.

Data reported by the licensed banks on foreign exchange transactions are received on diskette. Since electronic filing was only recently instituted (during the last two or three years), the OC still receives hardcopy statements. The objective is to abandon paper transmission once the computer system is fully established and reliable. Computerized bank statements are submitted once a month, by the 10th day of the following month; paper reports are submitted every ten days, ten days following the period in question. Regular bank statements summarizing transactions by the licensed intermediary are transmitted every ten days (in the case of paper

reporting), monthly or quarterly, depending on the type of statement, within ten days after the end of the period under consideration. Electronic transmission is actively encouraged. Transmission deadlines are generally respected.

The OC has understandings with other agencies, such as Bank Al-Maghrib and the Treasury Directorate, to provide information needed for the balance of payments on a regular basis. The OC maintains regular contact with these agencies, but those contacts should be strengthened and formalized.

There are bilateral agreements in place with the major economic operators for reporting their foreign transactions to the OC. These data sometimes arrive with a considerable delay.

In terms of coordination with other statistics producers, the OC is not a member of the Statistical Studies Coordination Committee (COCOES), the body responsible for coordinating and sponsoring statistical studies. Nevertheless, that committee is not operative and the authorities have recognized the need to remedy the situation through legislation. However, the OC has not been retained as a member of the National Statistical Information Council (CNIS), which would replace the COCOES. However, the OC informed the authorities of its intention to be part of the CNIS as data producer along with the other national data producers.

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

The information on exchange transactions used to compile the balance of payments is effectively administrative data for purposes of control. However, the data collected by the Foreign Exchange Control for the compilation of the balance of payments are used exclusively for statistical purposes. Indeed, statistical tasks and exchange control functions are performed by different divisions of the OC: while the Research and Balance of Payments Division in charge of statistics has access to the data received by the control divisions, it does not transmit confidential information to the control divisions or other entities.

Inspection visits to businesses for statistical purposes and exchange controls are kept strictly separate.

Thus, despite the absence of legislation explicitly protecting the confidentiality of information reported to the OC, the data collected by the statistical division are used solely for statistical purposes. Only if economic operators themselves request information on their own transactions, e.g., for purposes of certification of their declarations, the Research and Balance of Payments Division would transmit such information via the exchange control divisions to the operators as a service.

Moreover, the legislative project currently underway provides for the confidential treatment of the information accessed by the OC agents.

All the necessary provisions are in place, both in terms of data dissemination and information systems, to avoid the disclosure of individual data. As well, the explanatory notes accompanying the statistics respect the confidentiality of the individual data collected.

Access to the premises of the statistical services of the OC is reserved to agents of the institution and measures are in place to enforce this rule strictly.

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

The duty to report the information needed to compile the balance of payments is spelled out in the exchange control regulations. The obligation of the licensed banking intermediaries to report information on exchange transactions is found in Instruction 05 on compilation of the balance of payments and in circulars (in particular numbers 1633 and 1674) that the OC has sent to licensed intermediaries. Nevertheless, these provisions do not include penalties in case of failure to report the required information.

The information requested directly by the OC from major economic operators for completing and improving the data received from the intermediary banks' reports and from customs declarations is submitted on a voluntary basis.

The OC maintains close working relationships with the principal agencies producing source data, and has employed a number of means to make them aware of the importance of this task.

In addition to the legal powers for data collection that it gives the OC, the draft legislation submitted by the Office requires the intermediary banks and economic operators in general to provide the information needed for the balance of payments. The draft law also provides for penalties and progressive fines for failing to respect this obligation.

The OC takes account of the workload that the obligation to provide data imposes on the intermediary banks. On this point, the OC is attempting, where necessary, to simplify and streamline the provisions of the foreign exchange regulations as they relate to compiling the balance of payments. The intermediary banks for the most part are actively involved in designing these procedural amendments to ensure that their needs or limitations are taken into account (for example, in the project to computerize data reporting to the OC).

0.2 Resources

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

During the last three years, the Research and Balance of Payments Division of the OC has improved its productivity considerably: by automating data collection it has been able to reduce staff by approximately one-third. At the same time, the increasing volume and complexity of transactions, the need to develop new data collection methods because of the pronounced liberalization of exchange controls, and the need to adapt methods and practices to international guidelines require a different qualification profile of staff. Given the new directions that statistical work is taking, the OC has changed the hiring requirements for the Research and Balance of Payments Division.

The division currently has 114 staff members distributed roughly equally between compiling the balance of payments and foreign trade statistics. The staff qualification profile breaks down as follows: 16 advanced university graduates, computer engineers, and statisticians, 22 graduates, 20 computer technicians and 56 with a high school diploma or less. The latter group, however, typically have long experience in the OC and have considerable practical expertise. Only one manager has received training at the IMF Institute in the balance of payments methodology program (and that was before the *BPM5* was completed). Training courses have been offered at the Bank of France, as well. There is also an internal training plan.

The OC indicated its interest in participating in IMF training. Such training would help to ensure a fuller adoption of the methodology of the *BPM5* to compile the balance of payments and the international investment position.

Fully aware of its statistical mission, the OC strives to benefit from the experience of more advanced countries. In this regard, a training cycle has been initiated with the Banque de France since 2001.

Management attaches great importance to providing sufficient computer resources for processing the balance of payments statistics and for improving electronic access to them. Nearly all agents have a PC and money is earmarked in the next budget for equipping the remaining few who do not.

In terms of funding, the OC is essentially independent, since it receives 20 percent of the exchange transactions fee. The OC itself decides on the resources necessary to compile the balance of payments statistics.

0.2.2 Measures to ensure efficient use of resources are implemented

A three-year program of strategic action has been adopted by the OC, as part of the strategic action plan of the Ministry of Economy and Finance, and it is updated every year. It has been disseminated to all OC managers, who in turn advise their staff of its contents. The program sets out operational targets and deadlines for achieving them, as well as responsibility for each project. The plan makes it possible therefore to monitor achievement of objectives and serves as a useful tool for ensuring the efficient use of resources.

The OC does not conduct any analytical accounting to identify resources used by the balance of payments statistics program and compare them with other statistical programs.

In transmitting and processing data, the emphasis is on computerization, which means that the major information producers, essentially the banks and the customs offices around the country, are able to submit their data electronically. By eliminating manual collection of these data, the OC has been able to reduce staffing levels by approximately one-third to date.

0.3 Quality awareness

0.3.1 Processes are in place to focus on quality

Although the importance of data quality is clearly recognized by the OC priority tends to be placed on ensuring the accuracy and exhaustiveness of the data requested from administrative sources, rather than on other aspects of data quality. The OC recognizes, however, that it is going through a transition period, where its statistics mission is becoming more important and where statistical methods require a broader and more balanced approach to data quality.

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

The Research and Balance of Payments Division has introduced procedures for validating and verifying data so as to identify problems at the different stages of compiling the statistics. These measures include internal computerized validation, other methods of manual validation, through follow-up with data suppliers by a group of statistical inspectors and through direct contacts with the banks and operators, as well as the cross-checking of information obtained from different sources. As well, the internal activities and procedures of the Research and Balance of Payments Division are well documented.

There are no opinion surveys of users with respect to data quality, and there is no separate body to provide advice on the quality of the balance of payments statistics.

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

The OC is aware of the trade-offs that must be made between the various dimensions of data quality, particularly between timeliness and accuracy/reliability. Balance of payments statistics publications take account of these factors, indicating that the data are preliminary and will be revised.

The work program of the OC includes efforts to improve the quality of the balance of payments statistics in terms of timeliness, methodological soundness and accessibility.

There is no body for representing users. Nevertheless, the OC seeks to respond to their requests and to adapt to new needs with respect to balance of payments statistics. For example, the introduction of an exchange market in Morocco in June 1996 created new data needs on modes of settlement, currencies used and the nature of transactions settled in each currency. The OC has responded to this new need through an additional annual publication, "Balance of Settlements," the first issue of which was published in 2000, providing data covering the period from 1997 to June 2000. The report for 2000 is now being finalized.

1. Integrity

1.1 Professionalism

1.1.1 Statistics are compiled on an impartial basis

The OC has exclusive authority for compiling the balance of payments statistics, and it carries out this task with professionalism and complete independence.

Professional competence plays a key role in recruitment and promotion policies. Officers and managers responsible for compiling the data are recruited from among economists, statisticians and computer experts.

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

The choice of sources and techniques is guided by statistical considerations and the need to conform to stipulated methodologies. However, the choice is sometimes limited by the administrative framework, in particular the exchange control regulations under which the statistics are produced.

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

When the data are found to have been misinterpreted, the OC responds to the users concerned, particularly in cases involving the press. For these purposes, the economic press is constantly monitored.

Most of the OC's publications on external transactions statistics are accompanied by explanatory notes to facilitate interpretation of the data. For the quarterly publications, however, the OC has abandoned explanatory notes for the sake of speeding up publication of the data.

1.2 Transparency

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

The OC has published a mission statement on its Internet site. This statement includes the mission of compiling foreign trade statistics, preparing the balance of payments and publishing and disseminating the data. The statistical mission of the OC is therefore public knowledge.

The OC also posts references to the exchange regulations (instructions and circulars from the OC) on its website. This information is available to the public, as well, through the publication and documentation service of the Research and Balance of Payments Division. However, the information is targeted primarily at keeping economic operators and the general public abreast of exchange control provisions. The provisions governing the compiling of the balance of payments

statistics are explained only in this context. A more complete presentation of the provisions governing the OC's statistical work would be useful to the general public.

Publications of the OC contain notice that more detailed information is available on request.

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

Government agents have no access to the data while they are being compiled. In general, the data are released simultaneously for the government and for the public. The administrative ministries do not have access to preliminary data prior to their publication. These data are, however, transmitted to the central bank in order for these data to be more in line with those in connection with preparation of the annual report of Bank Al-Maghrib. This fact is not publicly announced.

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

Data on foreign trade and the balance of payments are published in the form of brochures and reports that make clear and explicit reference to the OC as the producer of the data. When the data are reproduced in other publications or through another means of communication, the OC insists that the source be quoted.

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

Changes in methodology and statistical techniques are notified to users after their adoption, i.e. when the data are published. Publications contain details on the methodology used for compiling the data, and any modification to it.

1.3 Ethical standards

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

There is no public statement of ethical rules relating to the confidentiality of information, the citing of data sources and the exclusion of political interference. However, respect for these rules is part of the agency's culture. Moreover, the ethical practices are communicated to new recruits during their internal training. Agents of the OC are also subject to the same regulations as those covering government employees, and they are subject to professional secrecy.

The legislative project underway provides for penalties to ensure the confidential treatment of data collected for statistical purposes.

2. Methodological soundness

2.1 Concepts and definitions

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

Preparation of the balance of payments is broadly consistent with the recommendations of the fifth edition of the *Balance of Payments Manual (BPM5)*, which Morocco adopted in 1995. The presentation of the balance of payments thus includes the current account and the capital and financial account. The current account is divided into four headings: goods, services, income and current transfers. The capital and financial account consists of the capital account, covering capital transactions, as well as the financial account, which records transactions involving direct investment, portfolio investment, other investments and the change in reserve assets. Finally, a line for net errors and omissions is included as a balancing item. Application of certain concepts in the *BPM5*, particularly those relating to the scope, classification of transactions, and the recording basis could be improved (see below).

2.2 Scope

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

In compiling the balance of payments, the OC attempts to capture all transactions between residents and nonresidents. Residential status is generally consistent with the definition in the *BPM5*, specifically the existence of a center of economic interest and the notion of economic territory.

Consequently, Moroccan nationals residing abroad (MRA) are considered nonresidents, and foreigners residing in Morocco are considered residents for balance of payments purposes. In practice, there are some exceptions to this rule because data are collected in connection with the exchange regulations.

Investments made by foreign residents and financed by bringing in foreign currency or by debiting a foreign account in convertible dirhams are correctly recorded as foreign investment in the Moroccan balance of payments. These investments enjoy a repatriation guarantee and are regarded as an external liability of Morocco, with the counterpart recorded as an increase in reserve assets. Conversely, investments in dirhams by residents with foreign nationality are adequately treated as transactions of residents and are therefore not recorded in the balance of payments.

The industrial free zone at Tangiers and the free port of Tangiers are not considered as part of the Moroccan economic territory for purposes of foreign trade and balance of payments statistics. However, they should be included, according to the *BPM5*. The OC is currently working to harmonize its foreign trade statistics in cooperation with Eurostat (under the Medcomext

program) so as to integrate free zone operations into the balance of payments statistics and bring them into line with *BPM5*.

Another deviation from the residency concept applies to offshore banks established in the offshore banking center of Tangiers, created by Royal Decree-Law No. 58-90 on offshore financial centers. Legislation treats these banks as nonresident entities. The offshore banks are under no obligation to repatriate their revenues or earnings abroad and they face no exchange restrictions in their transactions with nonresidents. Moroccan residents may not conduct direct relations with these offshore banks, and must use as intermediaries Moroccan banks that act as correspondents for the offshore banks. For transactions of Moroccan residents with offshore banks, a prior authorization is required from the OC. This is why the offshore banks are treated as nonresidents for purposes of the balance of payments. The activities of Moroccan offshore banks are judged by the OC to be of negligible importance and the deviation minor.

2.3 Classification/ sectorization

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

Transactions between residents and nonresidents, and institutional units are generally classified in accordance with the *BPM5*. The classification system covers the current account, including goods, services, income and current transfers, the capital account and the financial account, including direct investment, portfolio investment, other investments and reserve assets. Four institutional sectors are identified, specifically the monetary authorities, covering Bank Al-Maghrib, the government sector, covering public administration, the banks, covering all commercial banks, and other sectors, covering nonbanking financial institutions, other private and public enterprises and individuals.

A departure from the classification principles recommended in the *BPM5* is the variation in foreign currency assets and liabilities of depository banks with correspondent banks abroad, which is recorded as changes in reserve assets and not as other investment. Repatriations by MRA are generally treated as current transfers. Among other things, these represent repatriations in the form of bank transfers to accounts held in dirhams by MRA. The Moroccan authorities justify this practice on the grounds that these funds can be used in Morocco only by the account holders and their families. This practice could be found inconsistent with the principles of the *BPM5* in case of changes to the conditions on the re-transfer of these funds abroad.

Goods. This heading covers all merchandise transactions between Morocco and the rest of the world, including goods imported without payment and re-exported after processing, gifts and goods procured in ports.

Services. The Moroccan balance of payments distinguishes seven items for services: transportation, travel, communication services, insurance, royalties and license fees, other business services and government services not included elsewhere. Transportation services are broken down by form of transport (sea, air and other) and by nature (transport of goods and transport of passengers). For travel, transactions are classified as business or personal travel.

The classification of insurance services should be adapted to the recommendations of the *BPM5* (only a portion of premiums should be considered as insurance service, with the remainder included, along with claims, as current transfers for direct insurance, and as other investments for life insurance; the classification of reinsurance services would not change).

Income. The income item covers only investment income, broken down by institutional sectors. Reinvested earnings in Morocco are included. Compensation of employees is negligible and therefore not separately identified.

Current transfers. Current transfers are classed as public and private transfers. On the credit side, the principal components are repatriations by MRA and unrequited transfers received by the public sector. MRA transfers are made in the form of remittances of foreign bank notes, postal orders in the name of third party residents, or bank transfers. With respect to bank transfers, these may be deposited to the benefit of third parties or in dirhams accounts opened by the beneficiary. The Moroccan authorities explained that the funds held in the latter type of accounts are effectively used to cover the needs of the remitters and their families in Morocco and cannot be transferred abroad under the prevailing exchange regulations. The bank holdings of MRA in dirhams are therefore not considered as external liabilities of Morocco. This would have to be reviewed if restrictions on the use of dirhams are liberalized. On the debit side, the current transfers account covers primarily transfers by residents with foreign nationality from income savings, contributions to foreign pension funds and social security.

Capital account. In the Moroccan balance of payments this account covers capital transfers as well as the acquisition or disposal of non-produced, non-financial assets. Capital transactions refer to migrants' transfers and debt forgiveness on behalf of the public sector.

Financial account. Financial transactions cover direct investments abroad and in the Moroccan economy, including reinvested earnings, portfolio investment liabilities and other investments made with trade credits and short and long-term loans. Portfolio investments in foreign securities by resident Moroccan nationals must be approved under the exchange control regime and are consequently identified when they occur. The same goes for transactions with financial derivatives, which for the present at least are insignificant.

Reserve assets. This heading is not limited to the change in reserve assets of Bank Al-Maghrib, but incorrectly includes the net change in assets and liabilities of the commercial banks with their correspondents.

2.4 Basis for recording

2.4.1 Market prices are used to value flows and stocks

Transactions in goods are recorded at their transaction value. Generally speaking, other transactions are recorded on a settlement basis, which for most transactions may be considered as satisfying the market-price valuation principle. Transactions involving the purchase or sale of foreign currency are converted to national currency at the market rate at the time of the transaction.

Transactions in international reserves, which are estimated on the basis of the change in reserve assets reported by Bank Al-Maghrib, should be regularly adjusted to take account of the reevaluation of assets resulting from fluctuating exchange rates. The OC began to take into account the effect of exchange rate changes in 2001, when the impact was found to be considerable resulting from the exchange rate change in April of that year. Since March 2001, the balance of payments reserves exclude the impact of currency fluctuations. This adjustment should be pursued for coming publications of the balance of payments statistics and revisions be made for earlier periods, as far as possible.

2.4.2 Recording is done on an accrual basis

The transactions recorded in the balance of payments consist primarily of two categories: transactions in goods and settlements between residents and nonresidents. Transactions in goods are recorded when the goods clear customs on the basis of “special trade,” while the data on settlements are recorded on the basis of bank account statements reflecting the purchase or sale of foreign currency. Trade credits are estimated by crosschecking the physical flow of goods against payment records for exports and imports. Reinvested earnings are recorded at the time of the decision on the use of earnings. There is no estimating of accrued interest.

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

Balance of payments transactions are recorded on a gross basis, both for current transactions and for financial transactions. Financial transactions are broken down as to assets or liabilities, as appropriate. Nevertheless, some transactions are recorded on a net basis, primarily in the case of payments for the settlement of claims and liabilities between the parties concerned. These relate essentially to the transport and insurance sectors.

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

Balance of payments statistics are compiled on the basis of an international transactions reporting system (ITRS) that satisfactorily captures balance of payments transactions for the time being. For transactions in goods, the information is provided by the customs administration. For payments between residents and nonresidents, the source data come from the banks that are licensed to act as intermediaries and to conduct foreign exchange transactions. These data are provided to the OC through regular and comprehensive reporting, regardless of the sizes of the payment. The data are verified to ensure that they are consistent with information collected from banks and other operators.

The data derived from these primary sources are supplemented by information from other departments (Ministry of Finance and Bank Al-Maghrib), which are used to compile data on

transactions relating to public foreign debt and reserve assets. However, the data on reserve assets currently reported by Bank Al-Maghrib are not sufficiently detailed to measure flows adjusted for exchange rate changes since they are presented as stocks outstanding converted in dirhams and in dollars.

Moreover, while data are requested directly from certain economic operators in order to improve the coverage and recording of transactions, the OC does not yet conduct statistical surveys as such.

Revisions take into account all changes in available data Inclusive of information on certain transactions or operators gleaned from the press, which is closely followed.

Although data sources seem appropriate at the present time, supplementary sources, in particular the use of surveys, should be introduced to maintain the coverage of the source data at a time of rapid liberalization of the exchange control regime. The surveys could also be used to improve the classification and recording basis for the data.

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

In compiling the balance of payments, the OC makes a number of adjustments to respect the methodological principles set forth in the *BPM5*. Differences in the practices used for foreign trade and the balance of payments are taken into consideration. For example, import data on a cif basis are converted to fob using a conversion ratio based on a sample of goods imported from the country's principal trading partners. The value of exports of goods sold on consignment is corrected in light of pricing information from foreign markets.

3.1.3 Source data are timely

Customs declarations are available in real-time over a direct line between the customs stations and the OC. Information on payments abroad is received every ten days or every month (depending on the medium used) with a lag of no more than ten days after the end of the reference period. These data reporting procedures are set out in Instruction No. 05 and circulars of the OC to the licensed intermediary banks. Arrangements are in place to ensure that all customs declarations and bank statements are received on time.

Occasionally significant delays were noted in obtaining information that the OC requests directly from businesses or other agencies; this information is reported on a voluntary basis and is used to improve the main source data.

3.2 Statistical techniques

3.2.1 Data compilation employs sound statistical techniques

The reception and processing of source data is computerized (a special line for customs declarations and computer support for banking statements). Computer controls are performed

and these are supplemented by visual inspections to ensure data accuracy. The layout of the data reporting forms has been negotiated with the partners concerned.

Verification procedures include checks for comprehensiveness, the validity of codes used, compatibility and plausibility (for example, combining the business registration number and the transaction code), the exchange rate used, etc.

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

The ratio used for converting imports from cif to fob is based on a sampling of customs declarations representing the major imported goods and the principal supplying countries. While foreign trade data are not corrected on the basis of partner country data, reconciliations are performed with the major partner countries and efforts are made to identify the source of any discrepancies detected.

Tourism statistics published by the Directorate of Statistics are used to breakdown travel receipts by country.

Statistical techniques could be applied more broadly to take account of certain transactions that are not presently captured in the balance of payments, that are reported too late, or that are under-estimated (e.g., exports of goods).

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 non-sampling error; the results of the assessments are monitored and made available to guide planning

Bank statements relating to individual transactions are cross-checked against periodic reports from the banks. Data from the ITRS are cross-checked against non-balance of payments data (cf. foreign banknote transactions) or are verified with the respondents, primarily the banks and the principal economic operators. Large-value transactions (exceeding one million dirhams for foreign trade and 4 million dirhams for settlements) are regularly confirmed with the banks or with the operators themselves.

3.4 Evaluation and validation of intermediate data and statistical outputs

3.4.1 Main intermediate results are validated against other information where applicable

Data from the ITRS are verified by crosschecking with information reported by other departments: for example, in the case of the public foreign debt, data on drawings and repayments are compared with those from the Department of the Ministry of Finance responsible for public debt management or with public enterprises and institutions.

Data from the Department of Tourism on numbers of tourists and overnight stays are used to validate and construct more details on travel information. Information reported in the press is used to monitor the realization of certain transactions, particularly in the field of foreign investment.

Balance of payments information from the banking system is also confronted with data on external assets and liabilities of banks obtained from monetary statistics.

3.4.2 Statistical discrepancies in intermediate data are assessed and investigated

Statistical discrepancies in the intermediate data are subjected to analysis when they occur. For example, large discrepancies that were detected between transactions in foreign banknotes reported by the banks and the summary statements on shipments of foreign banknotes were investigated and clarified by the Research and Balance of Payments Division. As a result, reporting procedures were amended in order to ensure that comprehensive reports, including transactions of all banking offices, were submitted by the banks.

In this regard, cross checks are carried out regularly between the information provided by banks and customs and that collected from the principal economic operators. Moreover, a body of statistical verifiers is constantly checking the accuracy of the data transmitted. Seminars are organized by the OC for agents who establish the statistical accounts from data provided by intermediary banks.

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

The “errors and omissions” item is monitored closely for each compilation of the balance of payments. The move to the *BPM5* methodology resulted in a relatively significant statistical discrepancy that required research efforts to identify its source, with the balance of payments accordingly revised for the years 1995 and 1996. For the ongoing work there is regular crosschecking between the different categories of data in order to identify possible sources of statistical discrepancy (travel receipts and tourist flows and numbers of overnight stays, interest on private loans and the stock of private foreign debt, etc.). Reconciliations with data from other countries and from international agencies are so far performed only for trade in goods, under the program for harmonizing Moroccan statistics with those of the European Union (Medcomext). A similar project is planned for trade in services.

Balance of payments data should, however, be compared more systematically, for example, with data from the national accounts (such as sectoral output) to evaluate the accuracy of the data. To do this, it will be essential to arrange for reciprocal exchange of information among statistics producers. International banking statistics from the Bank for International Settlements as well as the statistics on external debt compiled jointly by the World Bank, the BIS, the IMF and the OECD should be used to validate data on external debt transactions.

3.5 Revision studies

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

Revisions are only analyzed on an occasional basis, to study the reasons, the direction and the scope of revisions and, consequently, to correct statistical procedures. For example, in the case of perishable exports under a simplified declaration regime, export values are not known and are reported only when the goods have been sold abroad. Before electronic transmission of custom declarations became general practice, there was considerable delay in obtaining declarations with the value of exported goods. This delay often gave rise to significant revisions for exports. Analysis of those revisions led to provisional estimates for these exports.

Revisions are carried out on an on-going basis until the data are finalized on an annual basis. In order to avoid a number of preliminary data, the OC strives to incorporate periodically the revisions. The Division of Studies and Balance of Payments relies on statistical staff to verify and crosscheck the information between the banks and that of the economic operators. These checks assist in incorporating the required corrections in a timely manner. The main revisions are conducted only when there are major discrepancies between data.

Revisions studies could however be undertaken at regular intervals, for example each year after the definitive annual figures are compiled, and they could be published by the OC. Such studies would serve to enhance the reliability of the data, and could be used for making preliminary estimates for certain categories in order to shorten the publication time for the preliminary data.

4. Serviceability

4.1 Relevance

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

There is no regular mechanism in place for consulting users. Users' needs are considered only when they submit specific requests. The frequent requests submitted to the OC demonstrate the very keen interest of user's in balance of payments data. However, the usefulness of the data could be monitored more closely by instituting a consultation mechanism with the principal users, as a way to establish priorities for the balance of payments work program.

4.2 Timeliness and periodicity

4.2.1 Timeliness follows dissemination standards

Balance of payments statistics are released 4 to 6 months after the reference period. The timeliness is well within the GDDS recommendation, but would have to be shortened to three months to meet the SDDS.

4.2.2 Periodicity follows dissemination standards

The balance of payments being published on a quarterly basis, dissemination exceeds the recommendations of the GDDS (annual) and is consistent with the requirements of the SDDS. Indicators for external transactions, in particular foreign trade in goods, travel receipts, MRA receipts, foreign investment and the level of reserves, are published on a monthly basis.

4.3 Consistency

4.3.1 Statistics are consistent with the dataset

The errors and omissions item is monitored closely and its ratio, in comparison to the overall value of recorded transactions, is insignificant.

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

Annual time series for the *BPM5* presentation exist from 1995. The major methodological changes are flagged and explained to users in the notes accompanying the publication. Atypical evolutions are explained as necessary in the annual reports produced for this purpose.

While the presentation of the balance of payments that prevailed prior to 1995 (national presentation) is still published and thus longer time series are available in this format, the absence of longer series according to internationally accepted methodology somewhat limits the analytical value of the data. Specifically, it would be useful to apply retroactively the change in the methodology for processing of goods as well as for public debt reschedulings before 1995.

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

In general, the balance of payments data are consistent with the “rest of the world” account in the national accounts. The project to harmonize these two statistical frameworks is underway as part of implementing the *1993 SNA*. The balance of payments statistics can also be reconciled with foreign trade in goods data, as well as with data on the foreign debt.

4.4 Revision policy and practice

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

The quarterly cumulative data are compiled on a provisional basis and revisions are made continuously until the final annual figures are established. In some cases, however, revisions have been made over several years, because of the size of the statistical discrepancy (receipts in foreign bank notes, coefficient for moving from cif to fob import value, etc.). Such revisions are made on an exceptional basis, either to correct for under-declaration by operators or the banking system, or to correct mistaken allocations. In this case, the reasons and procedures for the revisions are clearly explained.

The reasons and the methodology used for revisions are explained to users through the notes included in the statistical publications, and over the Internet site.

Updates to the figures during the course of the year cannot be related to a specific quarter because the data are published only cumulatively. Given the publication schedule for the data (two monthly publications with different release dates, one quarterly publication and a preliminary and a final annual publication), it is sometimes difficult for users to keep track of the revisions.

4.4.2 Preliminary data are clearly identified

The preliminary data (quarterly and annual) are published clearly identifying them as preliminary. Final figures are only published for annual data. Once quarterly (or monthly) time series data are published, it should be possible to flag the figures that have been revised and to qualify the data for the most recent period of observation as preliminary.

4.4.3 Studies and analyses of revisions are made public

Studies of revisions are made only where there are methodological changes (occasionally). In such cases, the reasons, the procedures and the results are explained clearly. Analyses of the revisions due to changes in source data are not published, however.

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 balance of payments statistics are published in accordance with the standard components of the *BPM5*. The monthly and quarterly brochures as well as the annual report contain tables and graphs that trace the behavior of the principal components. The annual reports, "Balance of Payments" and "Trade Balance," contain detailed analyses and a discussion of the economic situation during the period under review.

5.1.2 Dissemination media and formats are adequate

The dissemination formats are adequate. The balance of payments statistics are published in dedicated publications (hardcopy) and are posted on the Internet site of the OC. That site contains a statistical menu summarizing the main components of the balance of payments over several years. Foreign trade statistics are also published annually on CD ROM. Finally, an Internet-accessible foreign trade database is in the process of being finalized, and a second database on other data is planned shortly (the project is expected to begin in March 2002, for completion by the end of 2002).

The Research and Balance of Payments Division offers users a documentation service which provides statistical publications of the OC, among other services.

5.1.3 Statistics are released on a pre-announced schedule

The OC does not announce a data publication schedule in advance, although the principal users seem to be aware of publication dates.

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

In principle, data are released at the same time to all users. There seems to be restricted access, however, by some government departments to preliminary data before their release. Also, the general public might not always be aware that the data are available until they are published in hardcopy format or on the Internet.

5.1.5 Nonpublished (but nonconfidential) sub-aggregates are made available upon request

Unpublished subsets of data are provided to users upon request, in hardcopy or electronically. Users may subscribe for detailed monthly foreign trade data from the OC.

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

Methodological notes are inserted in the annual reports of the OC, specifically the “Balance of Payments,” “Trade Balance” and “Foreign Trade Yearbook.” These notes can also be consulted over the Internet. They indicate the concepts, the scope, the coverage, the classifications and the recording procedures used.

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

The level of detail in the methodological notes is suitable for most users’ needs. A more detailed technical document on balance of payments sources and methods is not currently available.

5.3 Assistance to users

5.3.1 Contact person for each subject field is publicized

The Internet site indicates the names, functions and e-mail addresses of contact persons. As well, the OC’s documentation service responds to users’ requests or directs them to the competent source.

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

Apart from the Foreign Trade Yearbook, which is marketed at a nominal price, all publications of the OC are available free of charge. The list of the OC's publications is available at the Internet site. A subscription service is available to regular users.

Table 1.6. Morocco—Data Quality Assessment Framework: Summary Presentation of Results for Balance of Payments
(Compiling agency: Foreign Exchange Office (OC))

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			The responsibility for collecting, compiling and publishing balance of payments data does not have a sufficient legal basis. The OC is not part of the COCOES. The draft statistics legislation does not envision the OC's participation in the National Statistical Information Council which would replace the COCOES.	The lack of a legal foundation should be remedied by adoption of the draft legislation for the OC that was recently submitted to the Ministry of Economy and Finance.
0.2 Resources		X					Hiring rules for the research and balance of payments division have been adjusted to the new work priorities (reducing manual data capture, developing statistical techniques). The staffing structure is being revised to this end.
0.3 Quality awareness			X			The administrative framework in which the statistics are produced means that the focus is on the accuracy of the data collected from the exchange control and customs systems.	
1. Integrity							
1.1 Professionalism		X					
1.2 Transparency			X			The internal access to some preliminary data before publication is not publicly announced. Little information is published on the provisions governing the collection, processing and dissemination of statistics.	
1.3 Ethical standards		X					

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

Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Practice Not Observed; SDDS = Complies with SDDS Criteria						
Element	NA	Assessment			Comments on Assessment	Plans for Improvements and Target Dates
		O	LO	LNO		
2. Methodological soundness						
2.1 Concepts and definitions			X			The codes used for classifying transactions reported by the intermediary banks are being revised to bring them into line with the <i>BPM5</i> classification.
2.2 Scope			X			In order to harmonize foreign trade statistics with those of the European Union, it is planned to include the Moroccan free zones in the definition of Morocco's economic territory.
2.3 Classification/sectorization			X			The Tangiers free zones are currently excluded from the national economic territory for balance of payments purposes. Offshore banks located in Morocco are considered nonresident (although their operations are not regarded as material). Reserve asset transactions should exclude changes in foreign currency assets and liabilities of intermediary banks with their correspondents.
2.4 Basis for recording			X			The change in reserves should continue to exclude the exchange rate effect and this adjustment should also be applied backward. Interest income is not accrued.
3. Accuracy and Reliability						
3.1 Source data			X			The OC has indicated that it began in the first half of 2001 to take account of the exchange rate effect in calculating the change in reserve assets. The draft legislation envisages surveys of economic operators. Several fields have been identified where the OC could conduct surveys, including custom work, international transport, portfolio investment (project with the Securities Ethics Council).

Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Practice Not Observed; SDDS = Complies with SDDS Criteria							
Element	NA	Assessment				Comments on Assessment	Plans for Improvements and Target Dates
		O	LO	LNO	NO		
3.2 Statistical techniques		X				Statistical techniques should be developed further, for example, to correct under-estimates of exports and to make up for other missing observations.	
3.3 Assessment and validation of source data		X					
3.4. Assessment and validation of intermediate data and statistical output			X			The statistics should be compared more systematically with results from the national accounts and other international sources.	The OC is participating in the Eurostat Medcomext project to analyze and evaluate discrepancies in foreign trade in goods statistics with those of European Union countries. The OC has indicated that a similar harmonization project is planned for trade in services.
3.5 Revision studies				X		The causes of revisions are investigated only in the case of major revisions.	
4. Serviceability							
4.1 Relevance			X			Users' priorities are not always taken into account. There is no formalized mechanism in place to consult users.	
4.2 Timeliness and periodicity		X				Periodicity is also consistent with the SDDS.	

Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Practice Not Observed; SDDS = Complies with SDDS Criteria							
Element	NA	Assessment				Comments on Assessment	Plans for Improvements and Target Dates
		O	LO	LNO	NO		
4.3 Consistency			X			The balance of payments statistics are not always consistent over time (for example, changes in classification are not carried back sufficiently for users' needs).	The authorities have indicated that the "rest of the world" account is being harmonized with the balance of payments with the introduction of the 1993 SNA, in coordination with the DS.
4.4 Revision policy and practice				X		There is no specified revision calendar. Data are updated continuously during the year until the final annual figures are published. Since data are published on a cumulative basis, revisions cannot be traced by users to a specific quarter. Revision studies are not published.	Introduction of a database with quarterly data (rather than cumulative, see 5.1) would allow revisions to be attributed to a specific period during the year.
5. Accessibility							
5.1 Data accessibility			X			There is no pre-announced publication schedule. Quarterly series should be published instead of cumulative data for the year.	The OC plans to begin a project in March 2002 to set up a database with quarterly data (rather than cumulative), which would be accessible over the OC's Internet site (after finalization of the foreign trade database). The project is scheduled for completion by the end of 2002.
5.2 Metadata accessibility			X			A more complete publication, with greater technical detail, should be prepared and published.	
5.3 Assistance to users		X					

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 (GDSS) and the Special Data Dissemination Standard (SDDS). More details on the GDSS and SDDS can be found on the IMF's Dissemination Standards Bulletin Board (DSBB) on the Internet at <http://dsbb.imf.org>.

GDSS

- *Data Coverage, Periodicity, and Timeliness:* Dissemination of reliable, comprehensive, and timely economic, financial, and socio-demographic data is essential to the transparency of macroeconomic performance and policy. The GDSS 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 GDSS 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 GDSS, 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; and
- 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; and
- 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; and
- 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 Dissemination Standards Bulletin Board (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
<p>Prerequisites of quality¹</p>	<p>0.1 Legal and institutional environment – <i>The environment is supportive of statistics.</i></p> <p>0.2 Resources – <i>Resources are commensurate with needs of statistical programs.</i></p> <p>0.3 Quality awareness – <i>Quality is a cornerstone of statistical work.</i></p>	<p>0.1.1 The responsibility for collecting, processing, and disseminating statistics is clearly specified. 0.1.2 Data sharing and coordination among data producing agencies are adequate. 0.1.3 Respondents’ data are to be kept confidential and used for statistical purposes only. 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. 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. 0.3.2 Processes are in place to monitor the quality of the collection, processing, and dissemination of statistics. 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. 1.1.2 Choices of sources and statistical techniques are informed solely by statistical considerations. 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. 1.2.2 Internal governmental access to statistics prior to their release is publicly identified. 1.2.3 Products of statistical agencies/units are clearly identified as such. 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. 2.4.2 Recording is done on an accrual basis. 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 non-sampling 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 (e.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
<p>5. Accessibility</p> <p><i>Data and metadata are easily available and assistance to users is adequate.</i></p>	<p>5.1 Data accessibility – <i>Statistics are presented in a clear and understandable manner, forms of dissemination are adequate, and statistics are made available on an impartial basis.</i></p> <p>5.2 Metadata accessibility – <i>Up-to-date and pertinent metadata are made available.</i></p> <p>5.3 Assistance to users – <i>Prompt and knowledgeable support service is available.</i></p>	<p>5.1.1 Statistics are presented in a way that facilitates proper interpretation and meaningful comparisons (layout and clarity of text, tables, and charts).</p> <p>5.1.2 Dissemination media and formats are adequate.</p> <p>5.1.3 Statistics are released on the pre-announced schedule.</p> <p>5.1.4 Statistics are made available to all users at the same time.</p> <p>5.1.5 Non-published (but non-confidential) sub-aggregates are made available upon request.</p> <p>5.2.1 Documentation on concepts, scope, classifications, basis of recording, data sources, and statistical techniques is available, and differences from internationally accepted standards, guidelines or good practices are annotated.</p> <p>5.2.2 Levels of detail are adapted to the needs of the intended audience.</p> <p>5.3.1 Contact person for each subject field is publicized.</p> <p>5.3.2 Catalogues of publications, documents, and other services, including information on any charges, are widely available.</p>

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' Survey

Summary of results of survey of data users

An informal survey of the main users of official economic statistics in Morocco was conducted in July–August 2001, in an effort to determine the usefulness of the statistics and to identify user needs. The questionnaire was sent out to a sample of 50 users (among the media, financial institutions, public agencies, research centers, professional associations, etc.) and the response rate was 40 percent. A meeting with economic statistics users was held on January 22, 2002, during the IMF staff visit to Rabat. The meeting identified the strengths and weaknesses of Moroccan statistics and essentially confirmed the findings from the questionnaire. Statistical users attach great importance to the timeliness of publications: they want “fresh” and relevant statistics for decision-making purposes.

The following comments summarize the opinions of users who participated in the meeting, and those expressed in the responses to the questionnaire.

The 20 organizations that responded to the survey are distributed as follows: research organizations (4), employers' organizations (4), the printed press (1), banks (4), government (3) and corporations (4), attendance at the meeting showed a similar distribution.

More than half of respondents gave an overall “average” rating to economic statistics in Morocco, while the remainder considered them “good” and even “very good.” Most felt that Moroccan statistics compare favorably to those of other countries in the region (Tunisia, Egypt, Spain and Portugal were ranked ahead of Morocco, while Algerian statistics were less well perceived). Generally speaking, respondents were satisfied with the scope, the frequency and the accuracy of economic statistics. On the other hand, they were critical of the timeliness, the fact that the methodology is not well explained, and the lack of an advance calendar on statistical publications.

The scope is considered inadequate for social and demographic statistics. Sectoral coverage in the national accounts is insufficient.

The degree of detail is considered inadequate for government finance and balance of payments statistics.

The frequency could be improved for the national accounts and for Exchange Bureau statistics.

The timeliness is considered too long for all types of economic statistics, and particularly for the national accounts, the balance of payments and monetary statistics. The timeliness of sectoral statistics was mentioned frequently during the meeting with users (for example, industrial statistics for 2000 are not yet available). It was noted that information that is published late is no longer usable.

The degree of accuracy was judged inadequate for statistics on employment, the balance of payments, the national accounts and prices.

The methodology is not sufficiently descriptive, particularly for the national accounts, prices, government finance statistics, monetary statistics and social and demographic statistics.

Users showed a keen interest in having an advance calendar for the publication of statistics. The lack of advance information on publication dates applies to all published statistics.

Areas that could be improved relate primarily to the national accounts (availability of data on a shorter-than-annual basis, occasionally superficial macroeconomic analysis, sectoral studies, industrial surveys, more detailed data on household consumption), government finance statistics (timeliness of debt data dissemination), social and demographic statistics, regional statistics and other statistics such as domestic and foreign trade.

In conclusion, users consider Moroccan statistics to be accurate and credible, and this constitutes a sound point of departure for improving other aspects of quality. It is frequently the case that statistics exist but are not disseminated, and consequently are not available to the general public. It is important to stress the dissemination of statistics and to facilitate public access to them in various formats (publications, Internet, etc.).

The following tables summarize the comments and suggestions from users of Moroccan economic statistics.

Morocco—Comments and Suggestions from the Informal Survey of Economic Statistics Users

Users' Comments	
<i>Degree of detail inadequate</i>	Government finance statistics
	Balance of payments (chapter on "foreign investment" does not provide detailed sector information on foreign countries)
	Household consumption, incomes
	Construction statistics
	Investment statistics
<i>Degree of accuracy</i>	Inadequate statistics on employment
	Figures differ from one agency to another (e.g., for balance of payments, "foreign trade" chapter)
	Inadequate for the national accounts and price statistics
<i>Periodicity could be improved</i>	National accounts
	Statistics from the Exchange Bureau
<i>Timeliness of dissemination inadequate</i>	Generally, timeliness is inadequate for all statistics
<i>Other statistics needed</i>	Statistics on services
	Statistics on libraries, readership and new information technologies
	Statistics on household purchasing power
	Statistics on employment
	Sectoral statistics
	Productivity, cost of capital and labor
	Statistics on domestic trade and on cooperatives
	Input-output tables
<i>Other comments</i>	Macroeconomic analysis superficial
	The historical series of public finance statistics have breaks that make them difficult to use (use of different principles such as "fiscal year," "calendar year")
	Macroeconomic data sometimes contradictory

Morocco—Comments and Suggestions from the Informal Survey of Economic Statistics Users

Suggestions

- Produce regional statistics (for example, there have been no statistics on municipal government entities in Casablanca since 1993).
- Provide a better explanation of methodologies used for the national accounts, government finance statistics, monetary and financial statistics, and social and demographic statistics.
- Update the base year for the national accounts and price statistics.
- Make available publications from neighboring countries.
- Appoint a contact person who can provide clarifications on the data.
- Improve the timeliness for all statistics.
- Provide a detailed breakdown of domestic credit by institutional sector and by economic objective; provide data on the average bank lending rates (currently only the maximum and minimum rates are published).
- Publish an advance calendar for statistical release.