INTERNATIONAL MONETARY FUND

Review of the Fund's Experience with the Data Module ROSCs

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EXECUTIVE SUMMARY

This paper summarizes the main findings of the data modules of the Reports on the Observance of Standards and Codes (ROSCs) published as of end-2002. Findings are based on the 15 ROSCs that use the Data Quality Assessment Framework (DQAF) to evaluate six macroeconomic datasets. While still preliminary, findings tend to be borne out by ROSCs under preparation.

Assessments and recommendations in data ROSCs have been welcomed by country authorities, market participants, and donors. The authorities have found assessments rigorous and comprehensive and, in some cases, an expedient basis for planning statistical development. By focusing on data provided to *the public,* informing on compilation and dissemination practices, and providing an independent expert assessment of the quality of the data, data ROSCs have special appeal to markets and donors.

The main findings are:

- Countries with robust legal and institutional frameworks for statistical production performed generally better in terms of overall data quality.

- Subscribers to the Special Data Dissemination Standard (SDDS) were generally rated higher as regards dissemination, as well as the other dimensions of data quality.

- Most countries adhered broadly to internationally accepted methodologies, facilitating comparability across countries. In most datasets, however, there were shortfalls in the implementation of international standards, particularly related to coverage, classification, and sectorization.

- Production of adequate source data was a major challenge in most countries.

- ROSCs raised awareness of the importance of revision studies for increasing reliability of data; such studies were undertaken routinely only in a few countries.

- The fiscal statistics were the most seriously affected by weaknesses, often owing to incomplete coverage of operations beyond the budgetary central government.

- While both central banks and finance ministries maintained a close link between statistical production and policy formulation, central banks displayed the highest regard for disseminating comprehensive data to the public. In contrast, finance ministries tended to focus on reporting to the executive and legislative branches in the context of budget preparation, with less emphasis on disseminating detailed data that would permit exhaustive and timely analysis by markets and the public at large.

- The authorities' responses to ROSCs have been favorable, frequently comprising requests for technical assistance, notably for implementing ROSC recommendations.

I. INTRODUCTION

1. **To help reduce vulnerabilities in globalized economies, the international community is encouraging adoption of standards and codes of good practice.** Macroeconomic policy transparency is considered essential for improved policymaking and crisis prevention. Quality data are important to support sound economic decisions, including by permitting accurate vulnerability assessments in a world increasingly characterized by continuous and large trade and financial flows. Volatility in financial flows is largely driven by portfolio adjustments to new information on changing macroeconomic conditions.

2. **In this context, the IMF developed the data module of the Report on the Observance of Standards and Codes (ROSC).** At inception, data ROSCs focused on data dissemination practices, which were assessed mostly in reference to the Special Data Dissemination Standard (SDDS) established in 1996 (Box 1) and the General Data Dissemination System (GDDS) established in 1997 (Box 2). In view of the need to look beyond dissemination practices and to focus on other aspects of data quality, the IMF Statistics Department (STA) began work in 1997 on a comprehensive approach to assess the quality of macroeconomic data. This work culminated in the Data Quality Assessment Framework (DQAF),[1] which has been integrated into the data module ROSC following Board approval in July 2001.

3. **While participation in a ROSC exercise is voluntary, efforts have been made to ensure coverage of countries at different stages of economic development.** Such efforts have involved close coordination with area departments, which often provide the initial point of contact with country authorities, helping to ascertain their interest in undertaking a ROSC. As of end-2002, 32 data ROSCs had been circulated to the Board, 29 had been published (including 15 with assessments based on the DQAF), and 13 were under preparation. Reflecting recognition of the importance of data transparency in emerging markets, a large share of data ROSCs (34 percent) were conducted for these economies (Figure 1).

4. **Participation in a ROSC exercise offers several potential benefits to members.** The ROSC typically confirms/helps to reinforce adherence to best practices or calls for fuller implementation of international standards. The ROSC provides a candid assessment of data quality, recommendations on specific steps to attain international standards, and ample detail on statistical practices that enable users to form an independent view about the quality of available data. Publication of the ROSC is highly desirable for full realization of the objectives of increasing transparency and solidifying the credibility of the authorities' policy framework. All data ROSCs are made available to the Executive Board, and if the authorities agree, ROSC materials—including a document containing the views of the authorities—are published on the IMF website.

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[1] This framework was presented to the Board on July 11, 2001 on the occasion of the fourth review of data dissemination initiatives (see SM/01/208 Supplement 1). Also, it is explained in Carol S. Carson, 2001, "Toward a Framework for Assessing Data Quality," IMF Working Paper 01/25 (Washington: International Monetary Fund).

Box 1. The Special Data Dissemination Standard (SDDS)

The Executive Board established the SDDS in March 1996 to guide countries that have or seek access to international financial markets in the dissemination of economic and financial data to the public. While voluntary, a member country' s subscription carries a commitment to observe the standard and to provide certain information to the IMF about practices in disseminating economic and financial data. A subscription is to be communicated in writing to the Secretary of the IMF.

The SDDS is expected to enhance the availability of timely and comprehensive statistics and therefore contribute to sound macroeconomic policies, and the improved functioning of financial markets.

In establishing the SDDS, Directors emphasized that it should be implemented flexibly to adapt to changing circumstances and provide for periodic reviews to make needed adjustments. This approach has allowed the SDDS to address the need for more timely and comprehensive information on international reserves and external debt.

Countries that subscribe to the SDDS agree to follow good practices in four areas:

(1) the coverage, periodicity, and timeliness of data;
(2) public access to those data;
(3) data integrity; and
(4) data quality.

Countries also agree to post information about their data dissemination practices on the IMF external website (the Dissemination Standards Bulletin Board (DSBB)). Further, they must establish an Internet site containing the data, to which the DSBB is linked. As of December 31, 2002, 50 of the 51 countries that subscribe to the SDDS had established the required Internet data sites that link to the DSBB.

5.   **Data ROSCs are promoting improvements in the quality of macroeconomic data necessary for monitoring and analyzing economic conditions.** By focusing on data provided to *the public* and informing on compilation and dissemination practices, data ROSCs are inducing improvements in data required by market participants and other users. Resulting gains in transparency are expected to enable market participants and others to formulate better analysis, forecasts, and investment decisions. Improved understanding of the quality of data should reduce uncertainty and increase private investors' willingness to provide financing while pricing risk on a sounder basis, which could reduce the frequency and severity of financial crises and the need for multilateral lending. In the case of GDDS participants, ROSCs provide donors with a view on statistical development plans, thereby informing decisions on financial assistance.

Box 2. The General Data Dissemination System (GDDS)

The GDDS was established in December 1997 to assist countries that do not qualify for SDDS to develop sound statistical systems as the basis for dissemination of data to the public.

The GDDS encourages member countries to improve data quality; provides a framework for evaluating needs for data improvement and setting priorities in this respect; and guides member countries in the dissemination of comprehensive, timely, accessible, and reliable economic, financial, and socio-demographic statistics. The GDDS has been implemented in two phases, with the first phase emphasizing training and information. The second began in May 2000, and seeks to integrate the GDDS into the technical assistance work of the Statistics Department (STA) of the Fund and to begin disseminating metadata on the Dissemination Standards Bulletin Board (DSBB).

Importantly, the GDDS is focused on improving statistical systems, whereas the SDDS (see Box 1) focuses on commitment to data dissemination standards in countries that already meet high data quality standards. As of December 31, 2002, information on 52 countries participating in the GDDS was posted on the DSBB. Countries participating in the GDDS are required to:

(1) commit to using it as a framework for statistical development;
(2) designate a country coordinator; and
(3) prepare descriptions of current statistical production and dissemination practices and plans for short- and medium-term improvements in these practices for posting on the DSBB.

The GDDS is focused on a set of core statistical frameworks and indicators that provide a clear set of links between the GDDS and the SDDS for member countries seeking to improve the quality of their statistics. Countries are expected to use participation in the GDDS as a step toward subscription to the SDDS. Indeed, the two standards share several common features, including emphasis on sound practices in key sectors of macroeconomic statistics.

II. ROSC DATA MODULE AND THE DATA QUALITY ASSESSMENT FRAMEWORK (DQAF)

6.   **Data ROSCs have evolved in recent years to include a more comprehensive assessment of data quality.** The first data modules focused exclusively on dissemination practices, particularly coverage, periodicity, and timeliness of disseminated data and the use of advance release calendars. Experimental reports for Argentina and the United Kingdom (Table 1) were prepared by Fund staff using information available at Fund headquarters and additional information provided by the authorities in response to staff requests. In contrast, the report on Australia was based on a self-assessment subject to review by a panel that included Fund staff and drew on information available at headquarters. Subsequently, ROSCs for Albania, Armenia, Cameroon, Mongolia, and Uruguay included assessments that tended to sharpen the focus on data quality issues and involved staff visits to the countries.

Figure 1 : Data ROSC Modules[1] through end-2002
(By Country classification,[2] in percent of total)
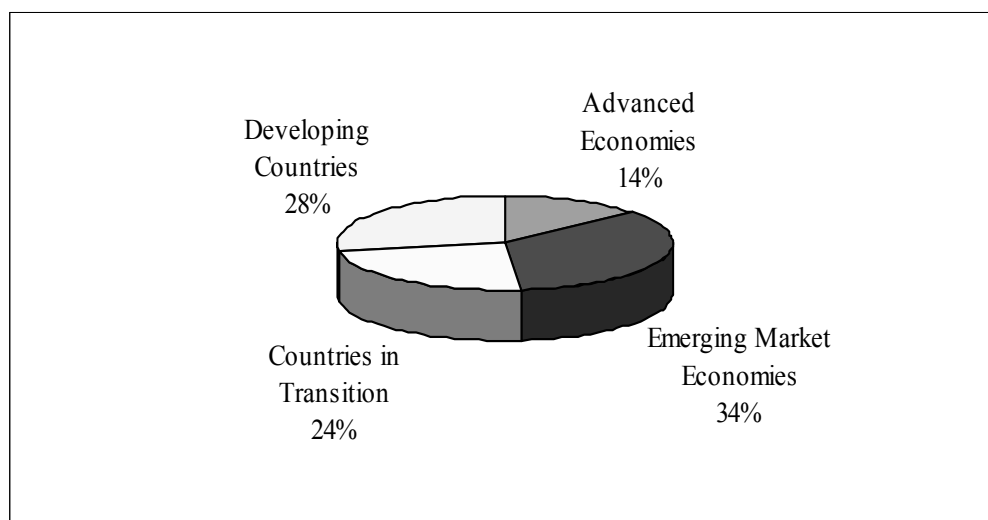
Source: Statistics Department.

[1]Includes DQAF-based reports published, issued, and in preparation.
[2]Emerging Market Economies are those with substantial bond issuance in international capital markets as reported by ICM. Other groupings defined according to *World Economic Outlook*.

7.   **Since early-2001, ROSCs have included DQAF-based assessments.** In addition to an assessment of the country data dissemination practices against the SDDS or the GDDS, each report includes a DQAF-based assessment that focuses on the multidimensional character of the quality of key macroeconomic datasets (Box 3). At this stage, quality assessments cover the national accounts, consumer and producer prices, and government finance, monetary, and balance of payments statistics. The ROSC data module is accompanied by two supplements: the staff's detailed findings (resulting from extensive discussions with counterparts), and the authorities' response. Looking ahead, data ROSCs could also include an assessment of sociodemographic data in GDDS participants,[2] which could be conducted by the World Bank, the lead agency as regards these statistics. In addition, assessments of labor statistics could be conducted by the International Labour Organisation (ILO). Adding such assessments would require a favorable cost-benefit calculation, and would involve intensified coordination among the staffs of the Fund, the World Bank, and the ILO.

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[2] The data ROSC for Senegal included an experimental DQAF-based assessment of the household and expenditure survey prepared by World Bank staff.

Table 1: Statistics Department – Data ROSC Modules through end-2002 [1]

Issued to Board but not Published	Published [2]	In Preparation [3]
AFR		
	Botswana (4/18/02)	**Mozambique (6/21/02)**
	Cameroon (8/24/01)	**Tanzania (10/23/02)**
	Mauritius (4/24/02)	
	Namibia (9/19/02)	
	Senegal (12/02/02)	
	South Africa (10/6/01))	
	Uganda (8/27/99) [4]	
APD		
Bangladesh (10/03/99) [4]	Australia (3/15/99) [5]	**India (5/30/02)**
Korea (11/29/01)	Hong Kong SAR (8/30/99)	
	Mongolia (5/2/01)	
	Sri Lanka (5/22/02)	
EU1		
	Albania (5/30/00)	**Greece (11/12/02)**
	Bulgaria (3/17/00) [4]	**Norway (11/26/02)**
	Czech Republic (6/30/00) [4]	
	Hungary (5/21/01)	
	Italy (10/31/02)	
	Romania (11/16/01)	
	Sweden (9/20/01)	
	Turkey (3/14/02)	
	United Kingdom (3/15/99) [4]	
EU2		
Russia (9/14/00) [4]	Armenia (1/16/02)	**Azerbaijan (4/23/02)**
	Estonia (11/6/01)	**Georgia (7/31/02)**
	Lithuania (12/04/02)	**Kazakhstan (5/3/02)**
		Kyrgyz Rep. (11/21/02)
MED		**Ukraine (4/17/02)**
	Tunisia (9/30/99)	**Morocco (1/30/02)**
	Jordan (10/16/02)	
WHD		
	Argentina (4/15/99) [4]	**Ecuador (4/25/02)**
	Chile (7/30/01)	**Mexico (3/7/02)**
	Costa Rica (8/16/02)	
	Uruguay (10/18/01)	

Source: IMF Website; and various reports

[1] Reports utilizing DQAF are in bold.
[2] Date of publication on external website.
[3] Date refer to last day of mission.
[4] No mission; report was prepared on the basis of country responses to questionnaires.
[5] No mission; report reflects self-assessment conducted by the authorities.

Box 3. The Data Quality Assessment Framework (DQAF)

The DQAF was developed by STA to introduce rigor, structure, and common language in the assessment of the quality of macroeconomic data. DQAF-based data assessments focus on the following dimensions of quality:

- **Prerequisites of quality**. Identifies legal and institutional conditions that impact data quality. Focus is placed on the legal and institutional environment, resources, and quality awareness. Quality of a dataset is viewed as intrinsically linked to that of the compiling agency. Assessors examine whether a supportive legal and administrative framework is in place, whether resources are commensurate with the needs of statistical programs, and whether quality is recognized as a cornerstone of statistical work.

- **Integrity**. Identifies features that support objectivity in the collection, compilation, and dissemination of statistics to maintain user confidence. Assessments focus on professionalism, transparency, and ethical standards guiding policies and practices.

- **Methodological soundness.** Refers to the application of international standards, guidelines, and agreed practices, which are dataset-specific, underpin data soundness, and foster international comparability. Assessments cover mainly concepts, definitions, scope, classification, sectorization, and basis for recording.

- **Accuracy and reliability**. Identifies features contributing to the precise representation of reality. Focus is placed mainly on features of the source data, statistical techniques, and supporting assessment and validation. Review includes data at all stages of dissemination, from "flash" to "final" estimates, the extent to which data are routinely investigated for errors and discrepancies, and whether revisions studies are conducted to inform the statistical process.

- **Serviceability**. Focuses on how well a dataset meets user needs. Assessments cover mainly the extent to which data are relevant, produced, and disseminated in a timely fashion with appropriate periodicity, consistent internally and with other datasets, and follow a predictable revisions policy.

- **Accessibility.** Deals with the availability of information to users. Assessments center on the extent to which data and metadata are clear and easily available, and assistance to the users is adequate to help them find and use the data.

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8.   **Data quality assessments rely on a high level of technical expertise and take into account user views.** Indicators of quality are examined by statistical experts within the country specific setting, with judgments made in weighting available information to determine to what extent a practice is observed. Also, when a practice is not observed, experts examine whether the intent of the practice is achieved by other means. Conversely, presence of a formal procedure may not always be sufficient to ensure that internationally accepted practices are observed. Assessments rely on the authorities' willingness to provide information that goes beyond publications and include internal methodological or operational procedures. Fund staff also survey and meet with key data users in the country, including international investment banks, rating agencies, and research institutes. User views are incorporated mainly in the section of the report on data serviceability and accessibility.

9.   **This paper summarizes the main findings of the 15 DQAF-based ROSCs published as of end-2002.[3]** The size of the sample reflects the relatively recent start of DQAF-based ROSCs and a gestation period involving meticulous examination of six distinct datasets and several compiling agencies, and the series of iterations between the staff and the authorities needed to foster country ownership. At this stage, therefore, findings are preliminary, although they seem to be borne out by the ROSCs under preparation. STA has prepared 16 data ROSCs since the time of the last review of standards in July 2001. It is expected that the fifth review of Data Standards, due for submission to the Executive Board in the second half of 2003, will draw upon a substantially larger number of data ROSCs (around 25 to 30 countries) for updating the analysis contained in this paper.

III. MAIN FINDINGS OF PUBLISHED ROSCs

10.   **The 15 DQAF-based data ROSCs relate to the statistical systems of** Botswana, Chile, Costa Rica, Estonia, Hungary, Italy, Jordan, Lithuania, Mauritius, Namibia, South Africa, Senegal, Sri Lanka, Sweden, and Turkey.[4] After presenting a summary of general findings, this section highlights findings on the key aspects of quality (prerequisites, integrity, methodological soundness, accuracy and reliability, serviceability, and accessibility) and the main macroeconomic datasets (national accounts, prices, fiscal statistics, monetary statistics, and the balance of payments). It concludes with a review of user views and the authorities' responses.

A. Findings by Dimensions of Data Quality

11.   **Legal and institutional frameworks were generally assessed to be sound.** However, resources were found to be somewhat less than adequate in most countries, which detracted from full observance of the prerequisites of data quality. Insufficient source data often led to comparatively lower assessments on accuracy and reliability.

Prerequisites of quality

12.   **Statistical agencies generally had appropriate legal and institutional frameworks, but resources and quality awareness were frequently insufficient.** In a limited number of cases where statistical production was governed by a legal framework that clearly assigned responsibility for compiling statistics in an impartial and independent manner, agencies tended to have sufficient resources and explicitly recognized quality to be the cornerstone of their work. In contrast, a case was identified where legislation was seen as hampering flexibility in personnel management and complicating recruitment of qualified staff, and in other countries there was insufficient coordination among statistical agencies. In most countries, missions identified a need for more qualified professional staff, training

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[3] Related data policy issues will be addressed more fully in the forthcoming data review paper being prepared for the Executive Board discussion tentatively scheduled for July 2003.

[4] Findings of the only completed DQAF-based ROSC not published to date (South Korea) are broadly consistent with those presented in this paper.

opportunities, and equipment. Preparation for accession to the European Union (EU) has strengthened the national legal and institutional frameworks supporting statistical activity in member countries, including as regards protection for confidentiality.

Integrity

13.   **Assurances of integrity were obtained in certain countries through strict adherence to statistical laws.** Such adherence safeguarded the independence of the main statistical agency and the freedom of compilers to choose data sources based on considerations such as timeliness and cost. Statistical policies and practices were transparent, with adherence to the laws and regulations governing the collection, compilation, and dissemination of data. Access to statistics prior to release was strictly limited, with clear guidelines for regulating the timing of each release and precise embargo times and/or "lock-up" procedures. In one case, prerelease access to data was limited to listed government officials. Approved representatives were given the press release one hour before release in a secure room, remaining incommunicado until release. In another case, government access to the data prior to release was not allowed.

14.   **However, providing assurances of integrity constituted a challenge in several countries.** In one case, the Central Statistics Office was not allowed to collect data until regulations prescribing the format and content of the information to be collected were set forth by the minister and approved by the National Assembly. In a few countries, senior officials and certain private users had access to selected statistics prior to publication. In one case, external influence appeared to hinder the updating of the weights of the consumer price index. Statistical agencies in several countries did not provide advance notification of major methodological and technical changes.

Methodological soundness

15.   **The degree of implementation of recommended methodologies differed across countries and datasets.** The most frequent methodological shortcomings were related to coverage, classification, and sectorization, while application of concepts and definitions was generally more compatible with international standards. These are set out in the *System of National Accounts 1993* (*1993 SNA*) and the *European System of Accounts 1995* (*ESA 1995*), the *Consumer Price Index Manual* (under development), the *Government Finance Statistics Manual, 2001* (*GFSM 2001*) and *A Manual of Government Finance Statistics, 1986 (GFSM 1986)*, the *Monetary and Financial Statistics Manual* (*MFSM*), and the *Balance of Payments Manual*, fifth edition (*BPM5*).

Accuracy and reliability

16.   **The national accounts and the balance of payments were most affected by insufficient source data, owing to the extensive need for data from multiple sources.** Across all datasets, conduct of revision studies was not widespread, but in several cases the ROSC exercise served to enhance compilers' understanding of their importance, particularly for enabling timely and reliable preliminary estimates. Missions explained that such studies involve a comparison between more recent estimates and previous ones to elucidate the

sources of revision and identify ways to improve compilation of preliminary estimates. Missions also underlined the importance of publicizing revision studies, including the need to inform users about differences among vintages of data and trade offs among accuracy, timeliness, and the frequency of revisions.

Serviceability

17.   **While the macroeconomic statistics were generally useful for conducting analysis and formulating policy, there was scope to improve timeliness and consistency.** With the exception of the monetary statistics, disseminating statistics on a timely basis was a challenge in most countries. Reconciliation of government data on bank financing of the budget and banking data on net credit to government proved difficult in many cases. Most countries lacked revisions schedules, clear procedures for revising data, and the practice of clearly identifying preliminary data.

Accessibility

18.   **In most countries, statistics and, to a lesser extent, explanations about sources and methodologies (metadata) were accessible to the public.** With the exception of SDDS subscribers, however, few countries had a well-established practice of disseminating advance release calendars and identifying contact persons. Agencies normally responsible for compiling national accounts and price indices provided generally good access to data. In general, central banks maintained good accessibility to monetary and balance of payments statistics. With some exceptions, finance ministries were not focused on ensuring easy public access to the government finance statistics.

B.   Findings by Macroeconomic Sector

19.   **The fiscal statistics were the weakest, and the monetary statistics the strongest, across virtually all the dimensions of data quality.** Incomplete coverage of fiscal operations and insufficient attention to the data needs of the public were main causes for concern. Principal factors underpinning the relative robustness of the monetary statistics were the ready availability of good and comprehensive source data and the straightforward compilation method.

National accounts

20.   **The extent of migration toward international methodological guidelines varied across countries.** EU members and several of the countries preparing to join the EU have focused in recent years on the implementation of the *ESA 1995*, which is broadly consistent with the *1993 SNA*. In some other countries, however, the national accounts were based on the older methodology of the *1968 SNA*, the predecessor of the *1993 SNA*. Reports in a number of cases pointed to the need for the following:

- expand coverage, including to capture the operations of the informal sector and unregistered companies not covered by surveys,

- improve the collection of source data and statistical techniques, including through surveys,

- explain/redress statistical discrepancies, including between GDP derived from production and from expenditure,

- ensure intersectoral reconciliation.

Prices

21.   ***Price indices* were generally prepared on the basis of sound methodologies, and were generally accurate and reliable.** In most countries, preparation of the *consumer price* and *producer price indices* followed the guidelines of the ILO. European compilers adhered to EU regulations for the Harmonized Indices of Consumer Prices, which are generally equivalent to those of the ILO. In a few countries, there was an urgent need to bring compilation methodologies more in line with international standards and to update the weights of the consumer price index and producer price index. In a few countries, lack of comprehensive source data and sound collection methods were causes for concern. Insufficient coverage was a serious problem in some developing countries, where source data were collected only for certain regions/markets. Most countries conducted assessment and validation of source and intermediate data.

Fiscal accounts

22.   **The methodology to compile the *fiscal accounts* was in broad adherence to the guidelines set forth in the *GFSM 1986* in most countries.** Some countries were only beginning to contemplate a transition path to full implementation of the new compilation guidelines (*GFSM 2001*). Several European countries, however, were applying the methodology of *ESA 1995,* which is broadly consistent with the *GFSM 2001*. Commonly observed shortcomings involved lack of comprehensive institutional coverage and misclassification, with potentially serious implications on the usefulness of the data. In some countries there were major gaps in the coverage of the central government, and general government data were unavailable. Other problems included:

- poor accounting and inappropriate classification and sectorization,

- lack of consistency with the monetary accounts,

- infrequent internal and intersectoral consistency checks,

- difficulty in reconciling the government borrowing requirement and financing.

Monetary statistics

23.   **The *monetary statistics* were compiled largely in accordance with the standard compilation guide *MFSM.*** However, in some countries compilers followed the older compilation as set out in *A Guide to Money and Banking Statistics in International Financial*

Statistics (draft, 1984). Common deviations from international standards related to classification and/or sectorization. In addition, compilation was hampered by the following:

- lack of information on transactions between domestic banks and their offshore branches,

- insufficient sectoral breakdown of transactions,

- classification of residents and nonresidents based on the nationality of the account holder rather than on the best-practice principle of "center of economic interest,"

- incomplete coverage of nonbank depository corporations,

- lax application of the accrual accounting method.

24.   **The *monetary statistics* had a comparatively high degree of accuracy and reliability.** This was facilitated by direct provision of source data by financial institutions, a straightforward compilation method, and a larger resource endowment at the disposal of central banks. In a few countries, however, there were insufficient (or insufficiently detailed) source data, significant reporting lags, and unreconciled discrepancies between net credit data and the fiscal accounts. In the case of the members of the euro area, introduction of the euro shifted the focus of the monetary statistics from the national to the European level, with compilers preparing to adhere to European Central Bank (ECB) requirements for increased scope and timeliness as well as greater statistical harmonization.

Balance of payments

25.   **With some exceptions, countries were guided by the standard compilation manual *BPM5* in the production of the *balance of payments*.** A major concern was the insufficient collection of basic data through surveys in some countries, which led to significant deviations from international recommendations on coverage. On the positive side, countries preparing the International Investment Position were in a position to benefit from crosschecks involving foreign direct investment flows from other sources, and other similar data compiled by trading partners. Remaining areas of concern included, most notably:

- deviations from residency criterion in recording commercial banks transactions,

- recording of transactions on a cash basis rather than on an accrual basis,

- inappropriate classification and sectorization,

- gaps in data sources, with insufficient coverage of the offshore sector, noncash financial transactions, and inflows of services, income, and current transfers,

- lack of timeliness in source data,

- data revisions did not follow a regular and transparent schedule,

- insufficient interdataset consistency,

- lack of written compilation procedures, leading to compilation errors.

User views

26.   **User views elicited through surveys and meetings greatly enhanced the basis for the assessments.** User opinions were a valuable input to the mission, pointing to areas that needed further consideration by assessors. Concerns were concentrated on what was seen as insufficient detail, particularly as regards the government finance statistics and the national accounts. In several countries, users were unfamiliar with advance release calendars, saw scope for improved timeliness and periodicity, and expressed dissatisfaction with the lack of sufficient information on data revisions.

The authorities' responses

27.   **Responses acknowledged shortcomings identified in reports, noting actions and plans set in train to address them, generally in line with report recommendations.** In most cases, the authorities found assessments fair and balanced, and in some instances, also recognized the importance of user suggestions elicited within the ROSC exercise. There was wide recognition of the value of the DQAF as a paradigm to guide statistical development. In several cases, the authorities welcomed this methodology, expressing particular appreciation of what they saw as new and useful concepts in the assessment of statistical conditions, particularly revision studies and revision policy. In most cases, the authorities emphasized the need for TA from the Fund and other sources to redress weaknesses in the statistical system, including in the legal and institutional frameworks. A few responses included a critique of the static ("snapshot") character of the assessment, suggesting that the report itself (rather than the authorities' response) should convey corrective plans and remedial measures adopted in the wake of the mission's assessment, along with staff's views on their appropriateness.

IV. TECHNICAL ASSISTANCE, UPDATES, AND COST IMPLICATIONS

28.   **Data ROSCs have served as catalysts for delivery of technical assistance (TA), including to program countries.** This catalytic role has been evident particularly in countries where assessments found the largest scope and/or urgency for statistical improvement (Table 2). Some countries with generally good statistics, however, were also interested in securing TA to ensure early adoption of ROSC recommendations. Data ROSC findings and recommendations were also generally supportive of work on use of Fund resources, as Estonia, Lithuania, Sri Lanka, and Turkey had arrangements with the Fund at the time of the ROSC mission or in its wake. In one of the most prominent program cases, Turkey, the ROSC and subsequent TA missions contributed to resolve issues related to the measurement of the official international reserves.

29.   **Preparation of periodic substantive updates of data ROSC assessments has recently emerged as an important challenge**.[5] Following implementation of ROSC recommendations, country authorities have often expressed interest in a reassessment to ensure that improvements in statistical practices are recognized by the Fund and publicized to markets and the public. In the context of resource constraints and continuing work to expand the coverage of data ROSCs to a larger number of members, substantive updates have not yet been conducted by STA. Some area departments, however, have taken note of actions aimed at implementing data ROSC recommendations, reporting on such developments in Article IV consultation reports.

30.   **The resource intensive work on DQAF-based ROSCs has led to a change in the product mix of STA.** To meet quantitative targets (15 new ROSCs a year), an increasing proportion of staff and budgetary resources have been dedicated to this work (Figure 2). A typical ROSC mission lasts two weeks, with the draft report discussed with the authorities while the mission is still in the field, and several rounds of subsequent long-distance consultations needed to fully process detailed observations from several agencies on the facts presented in the report. As a result, publication of the report has taken nearly seven months, on average (Table 3); preparation of the first draft of the report in a language other than English, in certain countries, has significantly increased average completion time and cost.

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[5] A more general discussion of the policy issues arising from the demand for substantive updates of ROSCs can be found in "Strengthening Surveillance, Domestic Institutions, and International Markets" (SM/03/86).
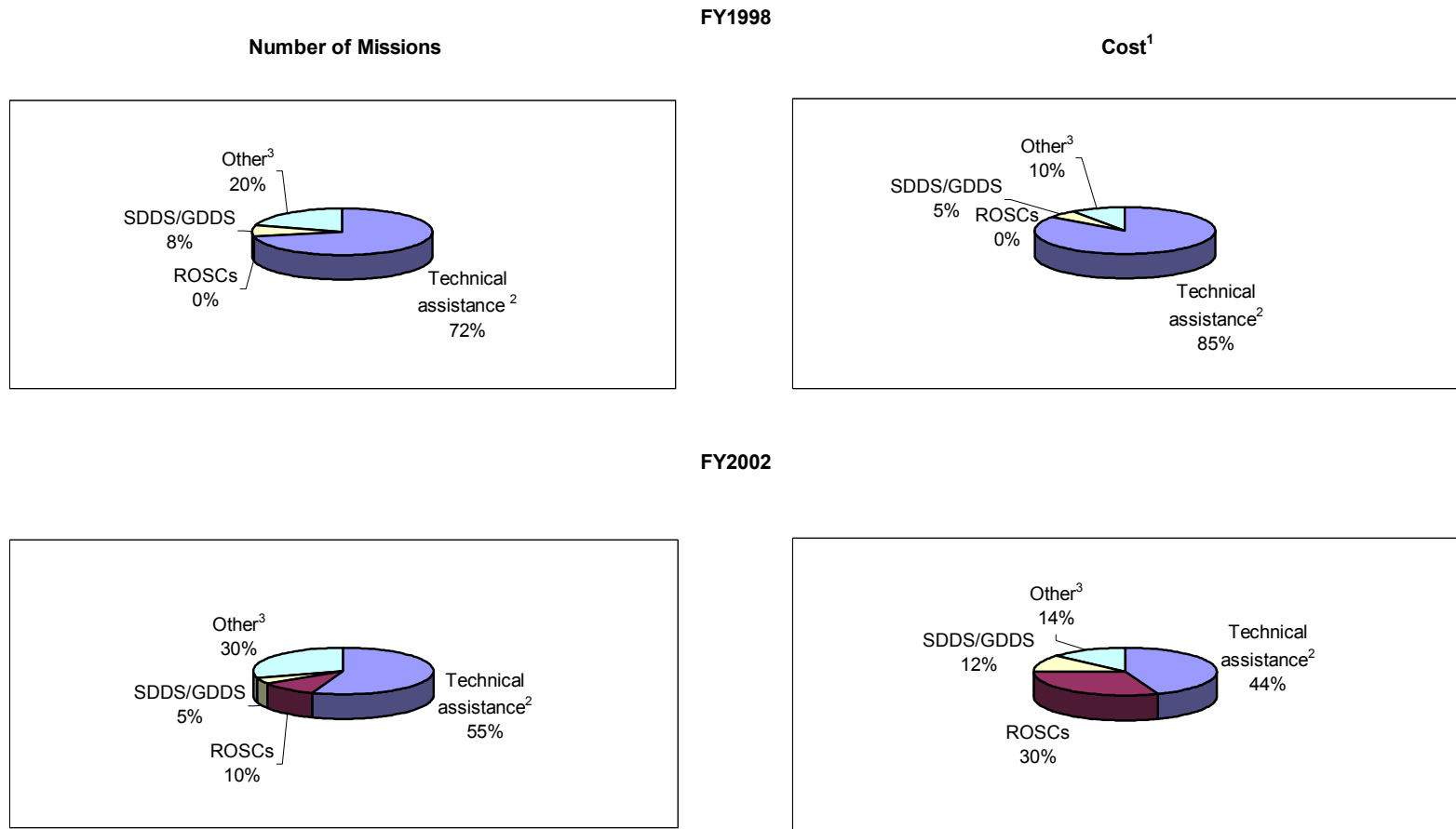
Table 2: Statistics Department—Post-ROSC Technical Assistance to Selected Countries
(Number of missions)

| | Technical Assistance | |
	Completed (As of end-2002)	Planned Through end-FY2003
Botswana	1 (Balance of payments)	1 (Balance of Payments)
Mauritius	2 (Government Finance/ROSC Follow-up, Money and Banking/ROSC Follow-up)	
Namibia	8 (Consumer Prices, Balance of Payments, Balance of Payments/ROSC Follow-up, National Accounts, Government Finance, GDDS)	1 (Balance of Payments)
Sri Lanka		1 (Government Finance/ROSC Follow-up)
Turkey	3 (National Accounts, Government Finance/ROSC Follow-up, Consumer Prices)	2 (Money and Banking, National Accounts)
Jordan		1 (Government Finance)
Chile	1 (Money and Banking)	2 (National Accounts, Government Finance)

Source: Travel Information Management System.

31.   **The ROSC experience suggests a need to find an appropriate balance between resources and achievement of the ROSC objectives.** Given present resources, for example, it appears that meeting the growing demand for substantive updates will require some rearrangement of priorities. As discussed in SM/03/86, resources for updates could be freed by a slight reduction in the number of new ROSCs.

Figure 2 : Statistics Department: Resource Allocation by Mission Type, FY1998 and FY2002
(in percent of total)

FY1998

Number of Missions

Other[3]
20%

SDDS/GDDS
8%

ROSCs
0%

Technical
assistance [2]
72%

Cost[1]

Other[3]
10%

SDDS/GDDS
5% ROSCs
0%

Technical
assistance[2]
85%

FY2002

Other[3]
30%

SDDS/GDDS
5%

ROSCs
10%

Technical
assistance[2]
55%

Other[3]
14%

SDDS/GDDS
12%

ROSCs
30%

Technical
assistance[2]
44%

Source: TIMS

[1] Air travel and per diem (U.S. dollars).

[2] Includes training.

[3] Includes travel related to conferences and meetings (including annual meetings) and UFR missions.

Table 3: Statistics Department—Key ROSC Indicators
(As of end-2002)

	Mission End-Date	Mission Duration (in days)	Days from Mission End-date to:		Dissemination Standard [1]
			Circulation to Board	Publication	
AFR					
Botswana	10/24/01	14	163	176	…
Mauritius	7/31/01	14	251	267	GDDS
Namibia	1/30/02	16	211	232	GDDS/SDDS
Senegal	9/22/01	11			GDDS
South Africa	5/18/01	12	136	151	SDDS
APD					
Sri Lanka	6/22/01	16	174	334	GDDS
EU1					
Hungary	1/30/01	9	92	92	SDDS
Italy	4/16/02	14	185	198	SDDS
Sweden	5/23/01	13	96	120	SDDS
Turkey	10/30/01	13	120	135	SDDS
EU2					
Estonia	5/18/01	9	154	172	SDDS
Lithuania	5/22/02	15	139		SDDS
MED					
Jordan	2/6/02	15	243	252	GDDS
WHD					
Chile	4/11/01	15	93	110	SDDS
Costa Rica	7/19/01	14	372	393	SDDS
Average		13.3	173.5	202.5	

Source: TIMS; and published reports

[1] Relevant dissemination standard at the time of the assessment.

V. CONCLUSIONS

32.   **ROSC assessments of data quality have been welcomed as rigorous and comprehensive, with the DQAF widely accepted as a useful tool.** The broadly favorable responses from the authorities likely reflect a better understanding of the multidimensional character of data quality and of the growing importance attached by economic agents to the availability of high-quality macroeconomic data. Publication of the data ROSCs has signaled the authorities' commitment to transparency and their intent to redress shortcomings identified in the reports. Data ROSCs have also played an educational role, establishing the DQAF as the comprehensive framework for approaching data quality, with DQAF assessments increasingly viewed as a basis for planning statistical development. Statistical experts, including at the Statistical Office of the European Commission, have recognized the capacity of the DQAF to help identify deviations from international best practice and ways to improve the quality of statistical products and institutions.

33.   **Data ROSCs have also been welcomed by market participants.** In outreach sessions conducted by Fund staff, considerable interest has been expressed on data ROSCs, particularly for SDDS subscribers. Data ROSCs are seen as vehicles ideally suited to provide an even handed and comparable evaluation of data transparency across countries at various stages of development, and promoting the reporting of more transparent and reliable macroeconomic statistics.

34.   **Preparation of ROSCs in a wide range of countries has served to enrich assessments.** In particular, the assessment of statistical systems of advanced countries has served to enrich the knowledge of the Fund in terms of good practices, with this knowledge helping to sharpen the recommendations provided in other countries. Learning about the particularly serious implications of certain poor practices in less advanced countries has also allowed missions to caution the authorities in other countries about the possible effect of continuing poor practices.

35.   **Countries with robust legal and institutional frameworks tended to perform better in terms of overall data quality.** Countries with less robust legal and institutional systems were generally faced with more severe resource constraints and greater scope for strengthening quality awareness.

36.   **Data ROSCs have suggested a link between institutional development and technical assistance.** The apparent link between an adequate legal and institutional framework and overall data quality, if verified in upcoming assessments, may be used to guide policy on technical assistance. Countries where presence of good prerequisites of quality has been revealed by ROSCs could be given higher priority in the allocation of TA resources. In addition, consideration could be given to directing technical assistance to institution building.

37.   **Most countries espoused international methodological standards for compiling macroeconomic statistics.** However, there were gaps in the implementation of international standards, particularly related to coverage, classification, and sectorization in most datasets.

The fiscal statistics were found to harbor more weaknesses as regards coverage and consistency with other datasets. Insufficient coverage of fiscal operations beyond the central government and incomplete detail in disseminated data were main causes for concern.

38.   **Revision studies were undertaken on a routine basis only in a few countries at the time of the assessment.** Moreover, there was relatively little awareness of their importance even in countries with relatively strong statistical systems. Following the data ROSCs missions, some countries have introduced revision studies into their work programs.

39.   **The commitment to serve users of statistics varied across agencies.** Statistical agencies generating highly relevant data for analysis and policy formulation tended to make their products more readily and easily available to the public. Central banks, which maintained a very close link between statistical production and policy formulation, displayed the highest regard for disseminating more comprehensive data to the public. In contrast, ministries of finance tended to focus on meeting domestically-set accounting standards and concentrated on reporting to the executive and legislative branches, with less concern for disseminating detailed data that would permit exhaustive and timely analysis by market participants and the public at large.