

INTERNATIONAL MONETARY FUND

**Review of Data Provision to the Fund for Surveillance Purposes**

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(In collaboration with Other Departments)

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## I. INTRODUCTION AND EXECUTIVE SUMMARY

1. The policy on data provision to the Fund for surveillance purposes reflects three basic principles: timely, accurate, and comprehensive data are essential for effective surveillance; data needs vary according to members' circumstances; and the Fund's data requirements evolve over time in line with developments in the coverage of surveillance.
2. Periodic reviews have provided the opportunity to analyze the implementation of this policy, and to consider adaptations in light of this record, changes in surveillance policy and practices, and other relevant developments. The last review was concluded in May 2002. It focused on provision of core indicators, coverage of data issues in surveillance documents, provision of data on international reserves and external debt, data for vulnerability assessments, fiscal data, and policies on data revisions.<sup>1</sup>
3. Building on these past reviews, this paper (i) reviews the framework for data provision to the Fund and its implementation; (ii) analyzes data needs stemming from four major areas of work to strengthen surveillance—namely, balance sheet analysis, debt sustainability assessments, liquidity management, and financial soundness indicators—and discusses steps to meet these needs; and (iii) reflects on the consistency among published datasets.
4. Three broad conclusions emerge from this review: first, in aggregate across the membership, substantial progress has been, and continues to be, achieved in data provision to the Fund; second, long-standing capacity constraints continue to limit availability of needed data in many members; and third, data needs for effective surveillance keep evolving.
5. The framework for data provision to the Fund is based on the Articles of Agreement, particularly, Article VIII, Section 5, and reliance on the cooperative approach underlying the Fund's relations with members. It centers on provision of a common data set by all members and provision of complementary data needed for effective surveillance according to countries' individual characteristics.
6. This paper proposes to introduce one modification to the existing framework, namely the introduction of summary assessments of data quality in the table of common indicators required for surveillance (formerly known as the Core Statistical Indicators Table), which would reflect the increased focus on data quality in the Fund's statistical work.
7. Analysis of the implementation of the data provision framework from both a short and long-term perspective shows that most member countries, including virtually all countries with market access, now report core statistical indicators on a timely basis. The review also indicates that the share of staff reports that assess data provision to be adequate for surveillance purposes has continued to rise: it now reaches 70 percent. Reflecting this progress, no major change to the framework is envisaged, beyond the proposal outlined above.

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<sup>1</sup> See *Data Provision to the Fund for Surveillance Purposes*, PIN/02/133, available at [www.imf.org](http://www.imf.org).

8. Notwithstanding the above positive developments, the review also points to areas where implementation of the framework can be strengthened. In particular,

- A non-negligible proportion of members has yet to reach the recommended lag of one month or less for core indicators relevant to monetary policy; and, as indicated above, data are assessed not to be adequate for surveillance purposes in still 30 percent of the membership. Many of these countries share common characteristics, such as a small population or a low per capita income. Further efforts are proposed to identify countries with long-standing capacity constraints that seriously limit provision of data needed for surveillance and to enhance attention to remedial strategies.
- Assessments of the adequacy of data provision for surveillance can be further improved. To that end, the implications of specific data shortcomings for policy analysis could be laid out more candidly; and staff could give added prominence to data quality issues, drawing on the use of the Data Quality Assessment Framework (DQAF) in the data modules of Reports on Observation of Standards and Codes (ROSCs).

9. Recent initiatives to strengthen the coverage and depth of Fund surveillance help define priorities for data provision. This review analyzes the data requirements in four major areas: balance sheet analysis, debt sustainability assessment, liquidity management, and financial soundness indicators. Within the range of data required to implement these initiatives, progress has already been, or is being achieved. For instance, enhancements to the Special Data Dissemination Standard (SDDS) have helped make available key data on reserves, external debt, and the international investment position; and the availability of the *External Debt Statistics: Guide for Compilers and Users* should lead to further improvements in compilation of external debt data.

10. Nevertheless, data essential to analyses of sectoral balance sheets, such as key breakdowns of assets and liabilities needed to gauge currency and maturity mismatches, are still difficult to obtain. The most significant gaps relate to the structure of public domestic debt and to exposures in the non-financial private sector. Against this background, the paper takes note of a number of ongoing statistical initiatives that could help alleviate some of these gaps, such as the annual *Coordinated Portfolio Investment Survey*, the feasibility study into the development of an internationally coordinated survey of foreign direct investment positions, and the elaboration of a *Compilation Guide on Financial Soundness Indicators*. The review also proposes seven additional steps to improve availability of balance sheet data, where most relevant. These steps are:

- development of a standard set of tables to help guide data reporting on public domestic debt to the Fund, including appropriate breakdowns (currency, maturity and interest structure);
- support to enhanced collection of monetary and financial sector data to capture more detailed information on assets and liabilities;
- promotion of greater coherence of data needs across policy initiatives, starting with data needed to capture currency and interest rate risks in the balance sheet approach and financial soundness indicators;

- review of the *International Financial Statistics* to explore inclusion of key indicators;
- continued experimentation with the use of nonfinancial corporate data from a variety of sources;
- continued elaboration of internationally agreed methodologies (e.g., *Balance of Payments Manual*, *Government Finance Statistics Manual*) to take advantage of their longstanding attention to stocks and to incorporate details, including currency and maturity composition; and
- in the run-up to the next review of the Fund's Data Standards Initiatives scheduled for the second half of 2005, initiation of consultations on the SDDS prescriptions for public debt.

11. The volume of data published, or re-disseminated, by the Fund has considerably increased as a result of the transparency initiatives of recent years (e.g., publication of staff reports) and development of the SDDS. This increase, which is beneficial *per se*, carries some risk: specifically, data users may be confused by publication of multiple and possibly different time series for a given variable, and in turn may question the validity of the data. The paper discusses ways to manage this risk, focusing on provision of metadata, inclusion of appropriate disclaimers, and common sourcing of data.

12. Within the current resource envelope, the present steady pace of progress in data provision to the Fund could be maintained. Tackling severe data shortcomings in Fund members, especially in low-income countries, at a faster than the current pace would require substantial additional resources. Other proposals could have budgetary implications, including some of the steps aiming at addressing the data needs of new surveillance initiatives and consistency of published data sets.

## II. DATA PROVISION FRAMEWORK—DEVELOPMENTS AND IMPLICATIONS

### A. The Data Provision Framework

#### Current status

13. **The Fund relies on the cooperation of members to obtain needed statistical information.** Under this cooperative approach, **a framework for data provision to the Fund for surveillance** was first defined in 1995.<sup>2</sup> It was amended on several occasions, the last being the conclusion of the 2002 review of data provision to the Fund. **Its key elements have been:**

- **Provision of a common core set of indicators by all members on a timely basis and with minimum lag, as an absolute minimum.** These indicators have included exchange rates, international reserves, reserve or base money, broad money, interest rates,

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<sup>2</sup> See *Summing Up by the Chairman—Strengthening Fund Surveillance—Provision of Statistical Data by Members* (4/7/1995); *Data Provision to the Fund for Surveillance—Preliminary Review of Experience*, Attachment II (7/21/1995); and *Concluding Remarks by the Chairman—Data Provision to the Fund for Surveillance—Preliminary Review of Experience* (8/2/1995).

consumer price index, exports/imports, external current account balance, overall government balance, GDP or GNP, the central bank balance sheet, and external debt/debt service.

- **Provision of additional data that are needed for effective surveillance, which vary according to members' individual circumstances and over time.** The needs and scope of members for producing data differs, and a single standard for all Fund members would be neither desirable nor realistic. This selective approach is needed to ensure evenhanded surveillance across the membership. In practice, members generally provide extensive information to the Fund that far exceeds the common core set of indicators.
- **Assessment of data provision to the Fund in Article IV consultation reports and summings up.** In staff reports, this assessment is derived from (i) a Core Statistical Indicators Table (CSIT), which summarizes information on provision of core indicators; (ii) a Statistical Issues Appendix, which provides more detailed information, as relevant; and (iii) use of the SDDS's prescribed and encouraged components on international reserves and foreign currency liquidity and on external debt as benchmarks for assessments of data provision in these categories. The assessment consists of an overall judgment on the adequacy of data provision for the purposes of surveillance; and, where relevant, a discussion of the implication of data deficiencies for the economic analysis presented in the report and recommendations for improvement, including recommendations on the provision of technical assistance where appropriate.
- **Use of a graduated approach in cases where data necessary for surveillance were not forthcoming due to reluctance on the part of the member.** The graduated approach involves, successively, direct staff and management contacts with the authorities, assistance from the Executive Director concerned, and consideration of the matter by the Executive Board either at the time of the Article IV consultation or in an informal country matters session.

14. **The data provision framework is based on the Articles of Agreement and relevant decisions of the Executive Board.** Article VIII, Section 5, which is a central pillar of this legal structure, requires members to report certain types of information for the purposes of the Fund's activities, including but not limited to surveillance. It lists several categories of information as the minimum necessary for the Fund's activities and empowers the Fund to require additional information from members. The obligation to provide information under Article VIII, Section 5 is not absolute: the Fund is required to take into consideration the varying ability of members to furnish the data requested.

15. **The recent decision adopted by the Executive Board pursuant to Article VIII, Section 5 has established an additional list of categories of information that all members are required to provide to the Fund.**<sup>3</sup> This list—with the addition of exchange rates, a data category specifically included in Article VIII, Section 5(a)—includes all the categories of

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<sup>3</sup> See *Strengthening the Effectiveness of Article VIII, Section 5—Revised Proposed Decision* (1/23/2004) Supplement 1, approved on a lapse of time basis (1/30/2004).

information specified in the core indicators and additional categories on fiscal, reserve, and monetary data. It, thus, replaces the core set of indicators, and is hereafter referred to as the list of “common indicators required for surveillance”. Correspondingly, the Core Statistical Indicators Table, which is included in every Article IV consultation report, will be replaced by a Table of Common Indicators Required for Surveillance.<sup>4</sup>

16. **The periodicity and timeliness of provision of common indicators required for surveillance have been previously discussed.** At the time of the introduction of the core set of indicators, Directors expressed the view that as many of these indicators as possible, and particularly those relevant for monetary policy, should be reported at least monthly. Directors added that certain data, such as on foreign reserves and related information and on domestic and foreign debt, may need to be provided more frequently at times of exchange market tension.<sup>5</sup> In this review, it is not proposed to revisit this matter, including the issue of the provision of reserves data with weekly timeliness and weekly periodicity.<sup>6</sup> However, since the obligation to report the information required under Article VIII, Section 5 is continuous in nature, more frequent provision of common indicators required for surveillance than monthly reporting may, under particular circumstances, be needed to fulfill a member’s obligations under the Articles.<sup>7</sup>

#### **Proposed modification**

17. As mentioned above, the data provision framework has been modified periodically.<sup>8</sup> The most recent modifications concerned the above-mentioned use of the SDDS components for international reserves and foreign currency liquidity and on external debt as benchmarks for assessments of data provision to the Fund. At this time, the staff sees merit in introducing one modification to the framework to reflect data quality assessments.

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<sup>4</sup> To keep the TCIRS manageable, only information on the main indicator in each category (e.g., general government balance) will be reported and significant deviations in timeliness and periodicity between the main and other indicators (e.g., government expenditure) footnoted (see Appendix II). In addition, information on the source of data and mode of reporting will be eliminated so as to focus the TCIRS on timeliness, periodicity, and other aspects of data quality reported to the Fund.

<sup>5</sup> *Summing Up by the Chairman—Strengthening Fund Surveillance—Provision of Statistical Data by Members* (4/7/1995)

<sup>6</sup> In the previous review, Directors stressed the importance of frequent and timely disclosure of reserves data to the public under the SDDS and examined the feasibility of moving the dissemination of the reserves template data to a weekly/weekly basis. In light of the concerns raised by most SDDS subscribers, Directors agreed to revisit this subject on the occasion of the fifth review of the Fund’s data standards initiatives. The staff paper for this review in July 2003 noted this issue, but did not report that a basis existed for moving to a higher frequency or a shorter lag in dissemination of reserves template data than a monthly/monthly basis. In practice, reserve data are provided to Fund staff on a much more frequent basis in many countries.

<sup>7</sup> See *Strengthening the Effectiveness of Article VIII, Section 5* (5/5/2003)

<sup>8</sup> See Appendix I for a summary of Executive Board discussions on statistical issues and related matters.

18. **The staff proposes that the Statistical Issues Appendix (SIA) and the Table of Common Indicators Required for Surveillance (TCIRS) cover data quality issues more comprehensively, based on use of the Data Quality Assessment Framework (DQAF).** In previous reviews, Directors have underscored that quality of the data has a major bearing on the Fund's ability to conduct effective surveillance; stressed that efforts to increase the frequency and timeliness of data provision should not come at the expense of other aspects of quality; and encouraged staff to look beyond coverage and timeliness to other quality aspects. In response, STA developed the DQAF, which has been used since July 2001 for the preparation of the data modules of ROSCs on data standards for over 40 countries. In its discussion of the fifth review of data standards initiatives, the Board encouraged a more prominent role for the DQAF in Article IV consultations.<sup>9</sup> To reflect this, staff proposes to add to the TCIRS, as memorandum items, summary assessments of methodological soundness and of accuracy and reliability for the datasets from which core indicators are drawn, when available from data ROSCs using the DQAF (see Appendix II).<sup>10</sup> Such assessments would expand the coverage of quality in reporting on provision of core indicators. It could also help strengthen discussions of the analytical implications of data deficiencies and potential remedies to these deficiencies.

#### **B. Observed Trends in Provision of Core Indicators and Treatment of Data Issues**

19. **For this review, the staff took stock of the evolution of the provision of core statistical indicators and the treatment of data issues in surveillance documents, both during the last two years, i.e. since the last review of data provision to the Fund, and over the past decade, i.e. since the initial adoption of the data provision framework.** The short-term analysis focused on timeliness and periodicity—two key elements of data quality—as reported in Core Statistical Indicators Table (CSIT), and covered all the Article IV consultation reports issued between September 2002 and August 2003 for a total of 124 countries (Appendix III). For the longer term perspective, the staff reviewed the first Article IV reports that included a CSIT for a representative sample of 50 of these 124 countries—almost all of these reports were issued in 1995/96—and compared these with the 2002/3 period. Staff also reviewed the treatment of data issues in Article IV reports, including the SIA, and summings up for the 50-country sample.

20. The main findings of these analyses are as follows:

- **Most members provided the core statistical indicators in a timely fashion.** The most striking improvement in timeliness between 1995/96 and 2003 affected reporting of international reserves. Substantial improvement in the reporting of broad money was also observed. There was some deterioration in the official reporting of interest rates, which are often available to staff from alternative sources.

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<sup>9</sup> *The Acting Chair's Summing Up—Fifth Review of the Fund's Data Standards Initiatives* –PIN/03/86, available at [www.imf.org](http://www.imf.org).

<sup>10</sup> Under the DQAF, methodological soundness refers to the degree to which compilation follows internationally accepted methodologies, while accuracy and reliability focuses on the extent to which source data and statistical techniques are sound and statistical output sufficiently portrays reality.



- **Nevertheless, a non-trivial proportion of members had yet to reach the recommended reporting lag of one month or less for high-frequency core indicators, i.e. core indicators relevant to monetary policy.**<sup>11</sup> This proportion varies from a quarter of members for interest rates to two-fifths for broad money (Figure 1). Many of these countries are countries with small populations (under 1 million) and/or low per capita income (Tables 1 and 5). Few are large countries with access to international capital markets or countries likely to have a large impact on trading partners (as measured by the aggregate size of their trade).
- **The proportion of countries reporting low-frequency indicators within a one quarter lag varied from 60 to 75 percent**, with the exception of the overall government balance where the proportion was nearly 90 percent (Figure 2). The overall picture is a slight regression compared to the results of the 2002 review, which reflects mainly the lower representation of program countries in the 2003 survey. Countries that report many indicators with a one quarter lag or more often have small populations. However, there are also a number of countries with large populations and high income levels that do not report low frequency indicators within a one quarter lag (Tables 2 and 6). Reporting lags greater than 12 months were exceptional, with only 13 countries (10 percent) experiencing such a delay for at least one indicator. All but one of them were countries with small populations.<sup>12</sup>
- **There was a slight decline in the proportion of staff reports providing an overall assessment of the adequacy of data provision for surveillance.** It fell from 80 percent in the previous review to about 75 percent, reflecting a decrease for both advanced and market access countries (Table 3). This difference may partly stem from the fact that data provision had not previously been considered a serious issue for effectiveness of surveillance in a majority of cases where the assessment was dropped since the last review.<sup>13</sup>

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<sup>11</sup> Indicators are classified into two groups: high frequency indicators, which are usually available on a monthly or more frequent basis, comprise exchange rates, international reserves, reserve/base money, the central bank balance sheet, broad money, interest rates, and consumer prices. Low frequency indicators, which are usually available only on a quarterly or annual basis, comprise GDP/GNP, overall government balance, exports/imports, external current account balance, and external debt.

<sup>12</sup> There are many instances where the cut off point was exceeded only minimally and may reflect factors other than a statistical shortcoming. If a cut off point of two months is used for high frequency indicators, the number of countries declines by half to 30. In the case of low frequency indicators, if the cut off point is two quarters, the number declines from 73 to 44.

<sup>13</sup> This decline may, to some extent, also reflect differences in the composition of countries between the samples for the previous and current reviews, and sampling error.

**Table 1 - High Frequency Indicators: Characteristics of Countries with Reporting Lags Exceeding 30 Days - 2002/3**

(Number of Countries, unless otherwise stated)

Number of Indicators with reporting lags exceeding 30 days	Number of Countries	Number of Countries by Indicator						Country Characteristics			Regional Distribution					
		International Reserves	Reserve/Base Money	Central Bank Balance Sheet	Broad Money	Interest Rates	CPI	Share of Countries with population <1 million	Share of countries with population <1 million or GDP per cap. < 500 US Dollars	Post-Conflict Emergency Assistance	AFR	APD	EU1	EU2	MED	WHD
6	10	10	10	10	10	10	10	70%	100%	--	2	5	1	0	1	1
5	13	8	13	12	13	10	9	38%	54%	--	4	1	2	0	3	3
4	18	5	10	11	13	6	7	22%	56%	2	6	6	2	0	1	3
3	5	0	5	5	5	0	0	0%	40%	1	1	1	1	0	1	1
2	3	0	1	0	3	1	1	0%	67%	--	2	0	0	0	0	1
1	16	0	0	0	8	2	6	19%	44%	--	4	2	1	1	4	4
0	64	0	0	0	0	0	0	6%	17%	1	5	12	21	10	3	13

Source: Staff reports for Article IV consultations issued September 2002 through August 2003, IFS, and WEO.

**Table 2 - Low Frequency Indicators: Characteristics of Countries with Reporting Lags Exceeding 90 Days - 2002/3**

(Number of Countries, unless otherwise stated)

Number of Indicators with reporting lags exceeding 90 days	Number of Countries	Number of Countries by Indicator					Country Characteristics			Regional Distribution					
		Trade	Account Current Balance	Overall Balance Government	NA/GDP	External Debt	Share of Countries with population <1 million (in percent)	Share of countries with population <1 million or GDP per cap. < 500 US Dollars (in percent)	Emergency Post-Conflict Assistance	AFR	APD	EU1	EU2	MED	WHD
5	9	9	9	9	9	9	22%	33%	--	3	2	1	0	3	0
4	9	6	9	5	9	7	44%	78%	--	4	2	1	0	1	1
3	12	9	12	2	9	4	33%	67%	1	3	4	0	0	2	3
2	20	7	14	0	13	3	30%	80%	1	8	4	2	1	0	5
1	23	1	1	0	6	15	4%	13%	1	2	4	7	1	1	8
0	50	0	0	0	0	0	8%	22%	1	3	9	16	9	5	8

Source: Staff reports for Article IV consultations issued September 2002 through August 2003, IFS, and WEO.

- **Among the three quarters of staff reports with overall data adequacy assessments, 70 percent found data to be adequate for surveillance, continuing a slow but steady improvement** from about 60 percent in 1995/96 and 65 percent in the previous review.<sup>14</sup> In cases where data provision was assessed to be inadequate, a smaller proportion of staff reports discussed the implications for macroeconomic analysis than in the previous review, although still considerably more than in 1995/96.
- **Coverage of the main macroeconomic sectors in SIAs has generally continued to improve** (Table 4). Importantly, the coverage of the external sector has broadened to include international reserves, external debt, and the international investment position. Moreover, SIAs have increasingly included a summary of staff recommendations for addressing remaining data deficiencies.
- **However, assessments of the provision of reserve and external debt data against the SDDS benchmarks in SIAs—a modification to the data provision framework introduced at the conclusion of the 2002 review—remain rare.** Few staff reports explicitly reference the use of these benchmarks. More importantly, few reports explicitly assess whether key components, including encouraged components of the SDDS such as the external debt repayment schedule and currency composition, are reported. This may partly be explained by the sizeable share of countries with market access that are fully in compliance with SDDS requirements. In these countries, staff may have considered that SIAs did not need to stress status of compliance with the prescribed components of the SDDS, and may not have been made clearly aware of the requirement to assess data provision against the encouraged components of the SDDS.

### **C. Implications of the Review and Further Recommendations**

21. **The data provision framework continues to deliver improvements in data provision to the Fund and, with the modification proposed in Section II. A., deserves to be maintained.** From a long-term perspective, it is noteworthy that lack of timely core statistical indicators is no longer a significant issue for countries with market access—a situation that contrasts with the one prevailing in 1995. From a short-term perspective, the continued—though admittedly slow—rise in the proportion of countries where data are assessed to be adequate for surveillance is encouraging. Just as importantly, the data provision framework continues to provide the means to highlight circumstances where data weaknesses have a detrimental impact on surveillance and to discuss possible remedies.

22. **Nevertheless, a number of issues related to the implementation of the framework need to be addressed:**

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<sup>14</sup> The improvement since the last review is larger if it is considered that the omissions reflected primarily countries with satisfactory data. The increase vis-à-vis the previous reviews may also to some extent reflect differences in the composition of countries between the samples for the previous and current reviews, and sampling error.

- **The relationship between specific data issues and assessments of data adequacy for surveillance needs to be laid out more clearly in some instances.** In a number of cases, the assessment of data provision to the Fund emphasized specific data issues, presented in the SIA or in the CSIT, rather than overall adequacy of data provision for surveillance purposes. To help address this gap, staff intends to clarify guidance on overall assessments of data adequacy, stressing that these assessments are to reflect the aggregate impact of identified data issues (e.g., periodicity, timeliness, and other aspects of quality) on staff's (and the authorities') ability to analyze the country's key policy issues.
- **There is scope for enhancing the content requirements of SIAs in order to sharpen data adequacy assessments.** The role of SIAs in assessing data shortcomings for surveillance purposes could be strengthened by addressing data quality issues based on available data ROSCs. Specifically, SIAs could include a summary of key data shortcomings highlighted in data ROSCs that are also considered important for surveillance purposes and steps taken to address these shortcomings. The data adequacy assessments and SIA would remain the responsibility of area departments, with appropriate support from STA. The recent Article IV consultation report for Peru provides an example of such an enhanced SIA (Appendix IV).
- **Assessments of the provision of reserve and external debt data against the SDDS benchmarks can be strengthened.** Data covered by these benchmarks, including encouraged components of the SDDS such as external debt service and the currency composition of external debt, are of great importance for vulnerability assessments (see Section III). Thus, including these assessments in SIAs—a step approved by the Board in 2002—is important.
- **More generally, consideration should be given to re-emphasize data assessment requirements in the main body of staff reports and staff appraisals.** Reports should include an explicit and candid assessment of the adequacy of data provision for surveillance and recommend actions to deal with situations where data prove inadequate for effective surveillance. In addition, reports should prominently caution the reader in cases where analysis of key issues was significantly affected by data deficiencies or where important policy conclusions are subject to a greater than usual degree of uncertainty due to data weaknesses. Staff would also recommend that the Board renews its commitment to generally continue to include a paragraph assessing the adequacy of data provision to the Fund in Article IV summings up.

23. **Action could also be taken to promote identification of long-standing statistical capacity constraints that hamper effective surveillance, and to facilitate definition of remedial strategies.** The analysis of lags in the provision of data to the Fund, especially high frequency indicators, suggests that certain types of countries (e.g., countries with a small population or low income, with regional concentration highest in Africa) may face particular difficulties in overcoming statistical capacity constraints. To address this matter, a number of steps could be promoted on a selective basis, i.e., in line with the main priorities identified for effective surveillance: (i) cases where progress has been very limited could be highlighted by placing key data weaknesses in historical perspective—for instance, by comparing the current

situation to that prevailing five or ten years ago; (ii) in these cases, the SIA could discuss the strategies followed to build statistical capacity and the reasons why these strategies have met with limited success; and, (iii) looking ahead, staff reports could discuss how present efforts to overcome statistical deficiencies reflect lessons from experience in the country concerned or in comparable countries. For these countries, participation in the GDDS should be encouraged or intensified because it provides a structured framework for improvement in data provision, as statistical capacity is enhanced through provision of technical assistance and sustained efforts of authorities. Identified deficiencies in data reporting to the Fund for the purposes of surveillance will also continue to influence technical assistance priorities, taking into account the importance of sustained efforts for capacity building measures to take root and their long gestation period. For these efforts to be successful, it must be recognized that member countries have to share a conviction that strengthening statistical infrastructure is highly beneficial for decision making, and to take the responsibility to devote sufficient own resources to that objective.

### III. MEETING EVOLVING DATA NEEDS

24. **New data provision requirements arise from the evolution of the surveillance framework.** In recent years, a number of policy initiatives aimed at enhancing the coverage of surveillance have been implemented with substantial impact for data requirements, many of them aiming to strengthen analysis of balance sheet issues, including debt sustainability. Data needs are expected to keep evolving over time in parallel with changes in the coverage of surveillance. Responses to these future needs will have to be carefully prioritized to reflect resource constraints of country authorities, the Fund, and other international financial institutions.

25. **This review focuses on the data implications of four areas of work for strengthening surveillance:** the balance sheet approach (BSA), the framework for debt sustainability assessments (DSA), liquidity management (LM), and the development of financial soundness indicators (FSIs) for financial sector surveillance.<sup>15</sup> While these four areas aim at enhancing the Fund's vulnerability assessments, there are substantial differences as to their focus and specific data requirements. In particular, the BSA provides a relatively broad analytical and operational framework that overlaps in several respects with the other initiatives (Box 1).

26. **Among other initiatives with data implications, the Fund's efforts to support low income countries and, more broadly, the international community's focus on achieving the Millennium Development Goals (MDGs) are prominent.** Enhancements to the GDDS have already been made to promote the compilation of data related to the MDGs. In parallel, the World Bank will prepare and annually update country tables, and will publish regional indicators, allowing to track progress towards MDGs. Staff is giving consideration to inclusion

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<sup>15</sup> See *A Balance Sheet Approach to Financial Crisis*, by Allen et. al. (WP/02/210); *Assessing Sustainability*, PIN/02/69; *Concluding Remarks by the Acting Chair, Financial Soundness Indicators*, PIN/03/71; All these documents are available at [www.imf.org](http://www.imf.org).

of a table on MDGs in Article IV staff reports, where relevant; these tables would be largely based on data compiled by the World Bank.<sup>16</sup>

27. **The Board has already discussed data implications of the four above-mentioned areas of work** in various contexts (see Appendix I). Executive Directors have asked for a plan to elaborate the BSA, covering *inter alia* the capacity to carry out balance sheet analysis with existing data (from traditional as well as alternative sources), and plans for improving data. In their discussion of FSIs, Directors encouraged countries to compile at least a core set of FSIs on a continuing basis, while recognizing resource constraints. Directors welcomed the draft FSI compilation guide and endorsed a coordinated compilation exercise. During the discussion of debt sustainability, a number of Directors stressed that staff reports should include more comprehensive data on the composition of public debt, highlighting the importance of continued progress on the provision of comprehensive public debt data.

28. **This review provides an opportunity to assess the inter-relationships between the four initiatives and their data requirements, and form an integrated view of the implications for data needs of the Fund.** The section discusses the extent to which these needs can be met by existing data methodologies and the actual availability of needed data and it outlines a plan of action to tackle identified gaps. The initiatives and their data implications are summarized in Box 1.

#### A. Policy Initiatives and Data Needs

##### Balance Sheet Approach (BSA)

29. **The balance sheet approach requires datasets that are focused on key aspects of vulnerability analysis**, notably sectoral data on assets and liabilities broken down by currency and maturity. Such data comprise a number of key variables for risk analysis within and across sectors (e.g., currency and rollover risks), which are also directly relevant to the other initiatives.

30. **The SDDS has led to substantial progress in the availability of some key balance sheet data** such as on reserves, IIP data, and, more recently, external debt data.<sup>17</sup> Methodologies have been developed to cover data needs more comprehensively: in particular, the new *External Debt Guide* covers many of the key breakdowns (Box 1).<sup>18</sup>

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<sup>16</sup> The forthcoming Biennial Surveillance Review will examine existing guidance on inclusion of social data in Article IV staff reports and consider the need for updating such guidance.

<sup>17</sup> The CPIS and the expansion of the BIS International Banking Statistics has also improved the availability of balance sheet data.

<sup>18</sup> For external sector data, virtually all SDDS subscribing countries are now disseminating data on their gross external debt position (with a link to the Fund's Dissemination Standards Bulletin Board). Around 90 countries are reporting IIP data for publication in the IFS, although some provide only partial information.

### **Box 1. New Surveillance Initiatives and Data Implications**

The balance sheet approach (BSA), liquidity management, debt sustainability and FSIs touch on complementary aspects of vulnerability assessments. The *BSA* provides a broad coverage of an economy's aggregated sectoral balance sheets and their interlinkages, including a focus on currency and maturity mismatches, and capital shortfalls across sectors. *Liquidity management* (or reserve adequacy) analysis concentrates on liquidity risks and buffers in the form of reserves and debt structures, which are closely related to the balance sheet structure of the economy. The *debt sustainability framework* covers primarily solvency risk within two particular balance sheets: that of the overall economy (external debt) and that of the public sector (public debt). *FSIs*, which focus on the soundness of the financial institutions and of their nonfinancial corporate and household counterparts, cover issues beyond the currency, maturity and capital factors (e.g., profitability). They can be used not only for sector-wide analysis but also for the analysis of individual or groups of institutions, allowing a view of intra-sectoral problems.

#### **Balance Sheet Approach (BSA)**

**Data needs.** The approach requires (i) a domestic-foreign currency and a short-long maturity breakdown for (ii) both external and domestic assets and liabilities of (iii) each of the public, financial, non-financial, and external sectors. This set of data can be presented in one summary matrix, as shown in Annex II of *A Balance Sheet Approach to Financial Crisis* (Allen et al) and illustrated in Appendix V of this paper. The fact that the assets of one sector are the liabilities of another sector can be used. For example, data on domestic liabilities of the private non-financial sector to the banking sector might be derived from the monetary survey in the *Monetary and Financial Statistics Manual (MFSM)* and from data disclosed on bonds issuance (e.g., as listing requirements). Some data on the domestic assets of the non-financial private sector may also be available from the debtor side (e.g., tracked ownership of governments bonds). Proper analysis of currency mismatches in the private sector also requires data on flows. In determining currency risks under the BSA, nominal off-balance sheet exposures, for example in the form of derivatives, need to be taken into account as well.

**Methodological frameworks.** The *System of National Accounts 1993 (SNA 1993)* provides the basic framework for all macroeconomic statistics including both flows and balance sheets for all sectors. The *External Debt Guide* covers external debt-related data needs of the BSA, notably currency and maturity breakdowns (tables 7.2/7.3 and 7.5/7.6/7.7). The *Balance of Payments Manual fifth edition (BPM5)*, including the IIP, provides the conceptual framework for the external sector, but does not explicitly call for a currency breakdown and information on residual maturity. Lack of a currency breakdown is not necessarily a severe problem for assets as, for nearly all countries, the vast majority of external assets are denominated in foreign currency. Regarding public and financial sector data, the *Government Finance Statistics Manual (GFSM 2001)* and *MFSM* do not prescribe the required detail on currency, maturity, and type of instrument (equity).

**Data availability.** Data are limited, especially for the nonfinancial private and household sectors. While data on the liabilities of the non-financial private sector are usually collected (external liabilities directly and other liabilities either directly or through debtors—as noted above), data on the assets of the private nonfinancial and household sectors are often not available. Nevertheless, existing collection systems provide useful means to analyze the non-financial sector balance sheets for currency and interest rate risk. These “shortcuts” include the ratio of external debt to exports, and interest coverage ratios for the corporate sector: the former is provided in existing collection frameworks at an aggregate level; the latter is a standard ratio disclosed by listed corporations.

## **Box 1. New Surveillance Initiatives and Data Implications (continued)**

### **Debt Sustainability Assessments (DSAs)**

**Data needs.** DSAs require both historical data and projections.<sup>1</sup> For the historical component, the DSA framework requires standard macroeconomic data or data identified in the BSA approach (e.g., national income, exchange rate, debt stocks, debt and interest repayments and currency breakdowns of external and public debts). For the projections, it is important to have data on interest structure and debt repayment schedules (together with projections for other variables). In the absence of such data, DSA can be conducted on the basis of summary assumptions (e.g., on average future interest rates), as is often done for private sector debt, but such an approach reduces the accuracy of debt projections and the value of alternative scenarios.

**Methodological frameworks.** Repayment schedules and interest structure for external debt are included in the *External Debt Guide*. The former is an encouraged element in the SDDS category for external debt. For public debt, such schedules are consistent with the GFSM 2001 framework, although not elaborated in a specific reporting table.

### **Liquidity Management/Reserves Adequacy**

**Data Needs.** The work on liquidity management points to the benefits of (i) using additional, augmented ratios of reserves adequacy reflecting in particular the existence of foreign currency liabilities between residents (e.g., public domestic debt denominated in, or linked to, foreign currency) and (ii) conducting rolling liquidity analysis, i.e. projection of reserve coverage and liquidity needs, as already done in some staff reports. The data required for such analysis are in essence a subset of the data needs for the BSA and the DSA: the ratio analysis requires data on the structure of external debt, public debt and on assets and liabilities of the banking sector (including their currency, residency and maturity compositions); and the more prospective part requires repayment schedules for external debt. In the absence of such schedules, the analysis can be conducted on the basis of summary assumptions, as is the case for the DSA.

### **Financial Soundness Indicators (FSIs)**

**Data needs.** To foster financial sector analysis, sets of core and encouraged FSIs have been developed. The *data needs* for the FSIs are extensive, although tempered by building on standard sectoral data reporting for banking supervision, managerial, and market information purposes. Some FSIs measure the exposure of financial institutions to interest and exchange rate risks; others pertaining to the corporate and household sectors are, in principle, designed to capture the impact of interest and exchange rate shocks on credit risk. Therefore, the reporting framework for FSIs also supports the BSA approach and provides variables relevant to liquidity analysis. However, in contrast to the BSA, FSIs do not aim at capturing *combined* maturity and currency risks. In addition, FSIs designed to measure the corporate sector's sensitivity to interest and currency movements do not quite capture these sensitivities as required for the BSA

**Methodological framework.** FSI compilation is based on balance sheets and income statements for the banking, nonbank financial corporations, nonfinancial corporations, and household sectors. A draft *FSI Compilation Guide* has been issued.

<sup>1</sup> See Tables 1, 3, and 4 of *Assessing Sustainability, and Sustainability Assessments—Review of Application and Methodological Refinements*, available at [www.imf.org](http://www.imf.org).



**31. Nevertheless, balance sheet analysis is generally hampered by lack of availability of key breakdowns and other data gaps, particularly on public debt and assets and liabilities of the non-financial private sector:**

- **Public sector.** In practice, available information on domestic public debt is weaker than on external public debt. Various problems arise: insufficiently comprehensive coverage of public sector liabilities, including limited data on contingent liabilities and other off-balance sheet liabilities; sometimes lack of breakdowns (currency/maturity or the combined breakdown);<sup>19</sup> and limited stock/flow consistency of public debt and fiscal data. In addition, data are not generally available in standard formats, hindering cross-country analysis, owing to varying degrees of consolidation and coverage. Insufficient consolidation across the public sector can lead to both underestimation and overestimation (e.g., government debt held by social security funds) of public debt.<sup>20</sup>
- **Pertinent external sector** data are covered by standard methodological frameworks, and compiled by many countries.
- **Financial sector.** While currency and maturity breakdowns of banks' assets and liabilities are in principle not complex to gather, they do not appear systematically in monetary survey (Depository Corporations Survey in the *Monetary and Financial Statistics Manual (MFSM)*) data. The same applies to a breakdown by interest structure.
- **Non-financial private sector (NFPS).** While data on external liabilities of the NFPS are often available within the external debt framework, their breakdowns (e.g., by maturity) are often unavailable.<sup>21</sup> Data on domestic liabilities of the NFPS can in principle be gathered from the creditor side (mostly the banks and other financial intermediaries) if these data are collected in sufficient detail. Data on domestic non-financial assets are often poor. However, this is not necessarily an impediment to vulnerability analysis since the focus of such analysis is primarily on the cash flow that these assets generate. Indeed, data needed to conduct basic analysis of aggregate currency exposure and individual companies' interest exposure may be publicly reported. Still, there is scope to strengthen

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<sup>19</sup> The SDDS prescribes a public debt category, while participants largely limit reporting to the central government. Moreover it does not prescribe currency and interest structure breakdowns. The SDDS prescribes breakdowns by maturity, preferably by remaining maturity. Where feasible, a breakdown of debt by foreign and domestic components according to residence should be provided. Where this is not feasible a number of breakdowns are acceptable: these include a breakdown by currency and debt instrument or debt holder. Dissemination of central government debt service (interest and amortization) projections is encouraged. The category is prescribed with quarterly periodicity and timeliness of one quarter.

<sup>20</sup> For example, the September 2003 *World Economic Outlook (WEO)* (Box 3.1) reports that for a sample of 34 emerging market countries, staff reports/desk economists provided public sector-wide debt data for 19 countries, general government data for 10, and central government data for 5.

<sup>21</sup> Consideration is being given to introducing a distinction between financial and non-financial private sectors in the context of the forthcoming update of *Balance of Payments Manual, 5<sup>th</sup> Edition (BPM5)*.

NFPS data, especially on individual companies' currency exposure and the aggregate exposure of the non-financial private sector to interest risk.

32. **Reflecting these problems, the availability of complete sets of sectoral balance sheets with required breakdowns remains very limited.** In some cases, staff collaborated with country authorities to produce a full balance sheet dataset. Appendix V on Brazil provides a detailed illustration of the operational challenges for staff in this regard even in countries where available datasets are relatively sophisticated; comparable datasets have also been compiled for Peru, Thailand, and Lebanon. Partial data sources (e.g., data from stock exchanges for listed companies) or databases of uncertain quality (e.g., from commercial data vendors) may need to be used. Generally, the country studies underscore the need for detailed financial and public sector information to compile data on the non-financial private sector, and the usefulness of FSIs as complementary information for vulnerability analysis.

### **Debt Sustainability Assessments (DSAs)**

33. **The recently developed DSA framework has led to a renewed focus on the importance of key data and assumptions.** DSAs have been undertaken for many years for the public sector and the economy as a whole as part of medium-term projections and scenario analyses. Key variables from sustainability projections are indeed standard components of the WEO database. However, insufficient availability of public debt breakdowns (by currency, maturity, and interest rate structure) limits the accuracy of the assessments and hampers scenario analysis. In addition, incomplete and heterogeneous coverage of public debt constrains the development of early warning models of debt crises.

34. **Data available for the analysis of debt developments typically suffer from various limitations:**

- Regarding *historic public debt data*, two frequent limitations are particularly relevant: (i) the coverage of data is not always sufficiently comprehensive, and (ii) in some cases information on public debt write-offs or restructurings is not available in sufficient detail to understand past debt developments.<sup>22</sup>
- Basic data for *public debt projections*, in particular debt repayment schedules, are usually readily available, especially in program countries. However, it is often difficult to obtain all the required breakdowns, notably the interest structure (necessary to make projections on interest payments based on assumptions on future interest rate developments) and

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<sup>22</sup> In many countries, debt stocks have changed more rapidly than implied by fiscal balances and standard debt dynamics. For example, in the case of Algeria, the FSAP highlighted that bank bailouts have added an average of 4 percent of GDP to the debt stock from 1991-2001. In Argentina, off-budget borrowing and the recognition debt has added 12 percent of GDP to debt between 1993 and 1998. In Brazil, foreign currency developments added 16 percent of GDP to the debt stock expressed in local currency between 1997 and 2002.

currency composition of public debt. Moreover, public debt repayment schedules sometimes include projected disbursements in addition to actual disbursements.<sup>23</sup>

- Necessary information on *private external debt* is often scant. Data on repayment schedules and information on interest structure are frequently insufficient.<sup>24</sup> Only 6 SDDS subscribers have posted the encouraged repayment schedules.<sup>25</sup>

## Liquidity management

35. **Recent work on liquidity management essentially builds on, and confirms the importance of, key variables covered under other initiatives.** It focuses on liquidity risk and reserves adequacy assessments, highlighting the importance for external vulnerability analysis of data on currency and maturity mismatches, and their combinations. As noted in Box 1, these data are a subset of the data required for the BSA and DSA.

## Financial Soundness Indicators (FSIs)

36. **Work on FSIs has been ongoing for a number of years now and reporting of financial sector data, although still limited, has improved.** The availability of FSI data has been reviewed through a survey conducted in 2000 to which 100 of the Fund's members responded.<sup>26</sup> Ninety percent of the respondents compiled at least one FSI in each of four main core indicator categories (capital adequacy, asset quality, earnings and profitability, liquidity), but only 60 percent did so for the important market risk category. For the encouraged categories, collection of at least one indicator varied from 35 to 53 percent. However, in many FSAPs, measurement of banks' direct and indirect exposure to interest and exchange rate risk, a key ingredient in assessing the vulnerability of the banking system, is still limited.

## B. An Action Plan

37. **A number of steps are being taken, or could be pursued, to improve data availability that would serve the needs of the various balance sheet initiatives.** These steps concern external data, public debt data, information on foreign direct investment, and compilation of financial soundness indicators. Staff is recommending seven additional steps to improve the availability of data for balance sheet analysis, focusing on the reporting of public debt data to the Fund, monetary survey data, greater compatibility of data needs across policy

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<sup>23</sup> These limitations are in practice resolved by using assumptions based on observed average interest rates and by line by line adjustments to repayment schedules.

<sup>24</sup> These limitations are in practice resolved by using assumptions based on historic repayment trends for private debt.

<sup>25</sup> Argentina, Ecuador, Israel, Kazakhstan, Slovenia, and the United States.

<sup>26</sup> See *Financial Soundness Indicators—Background paper*, chapter VI; and Slack (2003), *Availability of Financial Soundness Indicators* (WP/03/58), available at [www.imf.org](http://www.imf.org).

initiatives, updates of IFS formats, experimentation with use of corporate sector data from a variety of sources,<sup>27</sup> and continued elaboration of international methodologies and dissemination standards.

### **Current steps**

#### **38. Various efforts relate to external debt data:**

- On the creditor side, the BIS continues to upgrade its consolidated banking statistics. They are now published at quarterly rather than semi-annual intervals, and the number of countries reporting for the BIS locational banking statistics continues to increase.<sup>28</sup> The BIS does not plan further immediate improvements in its data (e.g., maturity composition in locational data or its derivative statistics).
- Other improvements in external data flow from the *Coordinated Portfolio Investment Survey* (CPIS). In February 2004, the Fund issued preliminary results of the 2001 CPIS, for which 67 countries provided information on their residents' holdings of foreign portfolio investment equities and debt securities broken down according to the country of residence of the issuer. When used as a creditor-side data source, the CPIS provides a partial measure of a country's external debt position (with respect to debt securities). The CPIS is being conducted on an annual basis.
- The World Bank, in collaboration with the Fund, is developing a database to re-disseminate the quarterly external debt statistics from the new external debt data category under the SDDS, within the work program of the *Inter-Agency Task Force on Finance Statistics* (TFFS). SDDS subscribers will be asked to supply data on a voluntary basis, similar to arrangements regarding the database for the reserve template. This database should facilitate the ready availability of consistent debt data, including breakdowns by sector, maturity, and instrument (as well as encouraged SDDS categories, i.e., forward debt service schedule and currency breakdown). The database is expected to be available to the general public during 2004.

**39. Other steps relate to domestic debt data.** The BIS is reviewing the scope for using commercial databases on tradable domestic debt to enhance public availability of such data. Based on its experience with the joint BIS-IMF-OECD-WB external debt tables, the TFFS intends to analyze the scope for enhancing availability of existing public sector debt data.

**40. Staff is also working on FDI data, as these have become more important due to the large increases in overall FDI flows.** Medium-term sustainability analysis requires sound data

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<sup>27</sup> Private sources include Datastream, Economica and Worldscope. In country cases, many other sources exist. For example, in Korea the Stock Exchange, the Bank of Korea (Financial Statement Analysis), and the National Institute of Credit Evaluators provide corporate data.

<sup>28</sup> From 28 countries in September 2001 to 36 in September 2003.

on FDI-related profits and FDI flows. Following up on the Board's seminar on FDI trends and statistics in November 2003, the staff will conduct a study of the feasibility of an internationally-coordinated survey of direct investment positions (modeled on the CPIS). Such an effort would help create a database with more comprehensive and internationally comparable data on FDI, and provide information on the geographic ownership of FDI capital. In parallel, staff is working on the significant discrepancies between statistics on returns from FDI of debtor and creditor countries, and is developing operational guidance to improve the reliability of data on returns on FDI investments and related current external account data.

41. **Further progress in the compilation of FSIs is under way.** The *Compilation Guide on FSIs*, which is expected to be submitted to the Board by April 2004, clarifies the statistical and conceptual underpinnings of the FSIs. Subsequently, Statistics Department and Monetary and Financial Systems Department will undertake a coordinated compilation exercise (CCE) on FSIs for about 60 countries. The CCE will provide a platform for compilation and dissemination of FSIs, with the aim of compiling at least a core set of FSIs for each country as of end-2005.<sup>29</sup> Given the overlap between FSIs and the BSA (Box 1), these efforts should support the development of BSA.

#### **Additional steps**

42. **While these ongoing steps represent major progress, the above discussion has identified significant challenges in meeting the needs of the various balance sheet initiatives.** Balancing the arguments for further actions to address these challenges against the costs of such actions for national authorities, the staff focused its attention mainly on improving data availability under existing data initiatives and exploiting existing data sources more fully. As staff continues to develop and prioritize work in this area, and present the results in surveillance documents, it would be useful to receive feedback from Executive Directors on aspects of all analysis they find particularly helpful.

43. Accordingly, the staff proposes seven additional steps. Where applicable, these steps would be implemented selectively according to countries' individual circumstances:

- **To underpin balance sheet analysis and debt sustainability assessments, reporting of public debt data to the Fund could be standardized and strengthened.** The staff proposes to develop a standard set of tables as a benchmark to guide data reporting to the Fund on public domestic debt, including appropriate breakdowns (currency, maturity and interest structure), key levels of consolidation, and adequate metadata on coverage and consolidation. Such tables would also help identify gaps in available data, and support cross-country comparisons. Over time, this should lead to more uniform and

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<sup>29</sup> The exercise is expected to improve the range of FSIs compiled and develop metadata (information about the data) describing how the data are compiled and key deviations from the methodology set out in the Guide. For countries whose banks have large cross border exposures, cross-border consolidated data is important. Such data go beyond those collected for monetary survey purposes.

comprehensive data on public debt, which could eventually be re-disseminated in a public database on a voluntary basis.

- **To capture relevant detail in financial sector data for balance sheet, liquidity, and financial sector analysis, enhanced collection and sharing of *monetary data* could be promoted.** While aggregate monetary data are presently widely available, breakdowns by maturity, interest, and currency are not always available. Accordingly, staff proposes to (i) assist countries with improved reporting forms and (ii) expand the use of standard reporting tables for the monetary databases (shared between Statistics Department and area departments). The latter would facilitate improving IFS content. The required details would help review interest and currency sensitivities of both the financial sector and its debtors.
- **The coherence of the data needs of the various surveillance policy initiatives, notably balance sheet and financial sector analyses could be enhanced.** The conference on FSIs planned for the autumn of 2004 could examine whether FSIs fully capture the BSA requirements, notably for identifying currency, maturity, and interest rate risks.
- **The content of the *International Financial Statistics* could be reviewed to explore the scope for reflecting the various new initiatives.** Consideration could be given to inclusion of key indicators, such as the ratio of reserves to short-term debt by remaining maturity, currency and maturity breakdowns for debt data, as well as information on borrowing spreads on external bond issues.
- **Staff could be encouraged to continue experimenting with the use of *corporate sector data* from a variety of sources such as stock exchange listings and commercial databases.** In parallel, countries could be encouraged to promote dissemination of such data, including data on individual companies' currency exposure and on the aggregate exposure of the non-financial private sector to interest risk.
- **Internationally accepted data methodologies will continue to be reviewed to meet evolving data needs of policy makers, market participants, and surveillance.** For instance, in the preparation of a new balance of payments manual, staff will review how the relevant breakdowns for maturity, currency and interest can be included in the IIP framework. The public debt reporting tables mentioned above could also be included in an eventual update of the GFSM 2001. Likewise, enhanced reporting tables for the monetary survey could be included in an eventual update of the *Monetary and Financial Statistics Manual*.
- **In the run-up to the next review of the Fund's Data Standards Initiatives, scheduled for the second half of 2005, staff will begin consultations on the SDDS prescriptions for public debt.** This review could cover *inter alia* provision of currency/interest breakdowns and repayment schedules for central government debt and of aggregate data for public sector debt.

## IV. CONSISTENCY AMONG PUBLISHED DATASETS

### A. What is the Issue?

44. **Dissemination of macroeconomic information by the Fund has expanded with greater transparency in recent years and the data standards initiative.** Until the mid-1990s, dissemination of macroeconomic data by the Fund was primarily through its traditional statistical publications (*IFS*, *BOPSY*, *DOTS*, and *GFSY*) and reports on the *World Economic Outlook (WEO)*. Since then, the publication of country reports (e.g., Article IV reports, reports on use of Fund resources, Statistical Appendices) and Public Information Notices (PINs) has brought about a marked expansion of statistical information published by the Fund. In addition, in the context of the SDDS, the Fund re-disseminates subscribers' data on external reserves and foreign currency liquidity.<sup>30</sup> Adding to the mix of available information, the World Bank also publishes an array of data in areas of close interest to the Fund, including external debt.

45. **Data published in staff reports, the WEO, and statistical publications frequently differ.** As an illustration, a review of data appearing to have the same definition published in a sample of PINs and WEO reports revealed numerous, albeit mostly small, differences. Most of these differences could be explained by such factors as differences in timing (e.g., use of more current information in PINs, changes in WEO assumptions not reflected in PINs) and variations in definitions and methodology; some could not be readily explained. Generally, key variables may be defined differently in statistical publications and in staff reports.

46. **Data disseminated through the Dissemination Standards Bulletin Board (DSBB) by SDDS participants may also be at variance with data published in Fund statistical publications.** Data disseminated through the DSBB by SDDS participants are based on national practices. These practices do not always conform to the international standards used in the Fund's statistical publications and may differ from data used by area departments.

47. **Fund publication of different time series for a given variable** (e.g., general government deficit) presents the risk of confusing outside users, which **may lead to concerns about the accuracy and reliability of data published by the Fund.** Outside users may not be fully aware of the factors behind differences in multiple time series for the same variable (e.g., differences in definitions or coverage) or may have difficulties reconciling such series.

### B. How to Address this Issue?

#### Metadata and disclaimers

48. **While consistency of all data published by the Fund is highly desirable, publication of different data series in staff reports and statistical publications can be appropriate.**

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<sup>30</sup> Re-dissemination of these data on the Fund's website is on a voluntary basis. Participating countries provide the information to the Fund in a common template soon after they disseminate the data in their national media. See <http://www.imf.org/external/np/sta/ir/index.htm> for details.

Differences in published data may stem from legitimate variations in data definitions that, in turn, reflect differences in purposes. For instance, traditional Fund statistical publications attach great priority to adherence to international standards to ensure comparability of data across countries, and permit computation of regional and world aggregates. In contrast, data definitions, coverage, and classifications in staff reports may appropriately reflect country-specific analytical objectives or institutional arrangements.

49. **To facilitate data reconciliation by users, the Fund should provide as clear and detailed metadata** (i.e., information on coverage, methodology, and definitions of data items) **as possible**. The WEO, traditional Fund statistical publications, and the metadata in the DSBB already describe in some detail their respective coverage, methodology, and definitions. As a complement, as already done in numerous instances, staff reports could provide information on coverage and definition of key variables—for instance, in the Statistical Issues Appendix—in cases of marked differences with the coverage and definition of these variables in official country statistics or in the Fund’s statistical publications.

50. **To clarify matters further, staff reports could carry a general disclaimer**. This caption would caution readers that data presented in the report may differ significantly from those in other Fund publications to address country-specific analytical and/or institutional needs.

### **Common sourcing**

51. **A complementary approach involves common sourcing, and better sharing, of data across the Fund**. One approach in recent years is to work with the authorities of selected countries to produce a common database for monetary and financial aggregates for use in both surveillance and statistical publications. Under the integrated monetary database project (IMDP), Statistics Department and area departments have collaborated in consolidating databases and unifying country reporting of the balance sheets of the central bank and the rest of the financial system. As a result, Statistics Department is providing to area departments common-sourced monetary databases for 27 countries, with four countries to be added by the end of FY 2004. Under the IMDP, a country sends a single set of monetary data to the Fund, with Statistics Department compiling standard analytical accounts that can be used for both operational purposes in area departments (with further reformatting and projections) and for publication in *IFS*.

52. **While constructing the IMDP has required resources, especially in the short-run and in addition to the usual technical assistance, there have been important benefits from the project.**<sup>31</sup> These include (i) reduced reporting burden for country authorities as a single set of monetary data is provided to the Fund; (ii) reduction of the number of databases to be maintained; (iii) easy identification of differences in monetary aggregates prepared for area department use and for the *IFS*; (iv) reduced differences in data disseminated by the Fund in

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<sup>31</sup> The establishment of an integrated database requires close collaboration among Statistics Department, area departments, and country authorities. One Statistics Department research staff is normally added to at least one TA mission.



reports and publications; (v) improved quality and transparency of monetary statistics; and (vi) significant economies in staff time dedicated to surveillance of monetary conditions. To reap these benefits, a gradual expansion of the IMDP to other countries could be undertaken, based on preferences of country authorities and area departments. The pace of these efforts could be determined by the current resource envelope.

**53. The application of common sourcing to sectors other than the monetary and financial sector can be explored as well.** Progress in this direction must, however, be carefully considered against the substantial resource requirements. It must also be recognized that operational difficulties can hamper the use of common sourcing in particular circumstances. One such difficulty may be the need to use the most up-to-date data, especially in program countries and in countries with rapidly unfolding economic developments; such data typically are in member countries' own format.

**54. In addition, the Fund could further promote the use of standard templates for data reporting to the Fund.** Greater use of standard templates rooted in accepted statistical methodologies would bring benefits to data management in area departments, improve cross-country comparability, and facilitate enhanced reconciliation with data reported to Statistics Department. The use of standard templates would be particularly appropriate for public debt data and monetary statistics (paragraph 42) and for external debt statistics, where the *External Debt Guide* provides a framework for designing a template that meets multiple Fund user needs.

## V. RESOURCE IMPLICATIONS

**55. Within the current resource envelope, the present steady pace of progress in data provision to the Fund could be maintained.** The proposed modification to the data provision framework (paragraph 18) and the strengthening of the implementation of the framework (paragraphs 22 and 23) are estimated to cost about a half staff year.<sup>32</sup> Departments should be able to absorb these costs within their medium-term budget estimates.

**56. Tackling severe data shortcomings in Fund members, especially in low-income countries, at a faster than the current pace would require substantial additional resources.** Encouraging participation in the GDDS and subscription to the SDDS is one important avenue to achieve this objective. Adding one participant to the GDDS costs about 0.4 staff year. Adding one subscriber to the SDDS costs about 0.25 staff year. Graduation from the GDDS to the SDDS often takes at least three years of sustained technical assistance and effort on the part of the country. Participation in the GDDS and subscription to the SDDS also entail a call on resources of member countries.

**57. Proposals aimed at addressing the data needs of new surveillance initiatives have varying budgetary implications.** The resource implications of three of the seven steps listed in paragraph 43 are already included in medium-term budget estimates; these are the review of the coherence of data needs across various policy initiatives, the reviews of internationally accepted

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<sup>32</sup> In comparison, total resources devoted to bilateral surveillance in FY2001 amounted to 363 staff years.

data methodologies, and the review of the SDDS prescriptions for public debt. Continued experimentation with the use of corporate sector data at the current pace (about 10 countries a year) would also have no additional resource implications. Doubling the pace of these efforts could cost about one-third of a staff year, which departments should be able to absorb through reprioritization.<sup>33</sup> The remaining three steps, namely implementation of expanded reporting forms for monetary data, development of standard reporting forms for public domestic debt, and review of the content of the *International Financial Statistics*, carry substantial costs— respectively about 0.5, 2.0, and 2.25 staff years. In the current zero-real-growth budgetary environment, undertaking these additional activities would require cutbacks in other areas of Statistics Department’s work. The 2½ full time equivalents (FTEs) (\$425,000) needed for implementation of expanded reporting forms for monetary data and development of standard reporting forms for public debt data could be met by reducing the number of data ROSCs by 2 or 3. The revision of the content of the IFS could be delayed by a year and funded then with a similar reduction in ROSC activity. Implementation of the first two of these three steps would call on resources of member countries.

**58. Pursuing current actions to ensure the consistency of published data sets at the current pace, including pursuit of the IMDP, is compatible with medium-term budget plans.** Improving metadata in staff reports could cost around 0.2 staff year and related improvements in the IFS 1 staff year. Doubling the pace of implementation of the IMDP (paragraph 51), from 5 to 10 countries per year, would require an additional 1.5 staff years. The latter two activities could be funded through a reduction in the number of data ROSCs. However, in staff’s views, this course of action would not be advisable given the importance of the data ROSC program to promote increased data availability and quality.

## VI. ISSUES FOR DISCUSSION

59. Executive Directors may wish to address the following questions:

- The report provides evidence on trends in the provision of core statistical indicators, assessments of adequacy of data for surveillance, and the treatment of data issues in surveillance documents (paragraph 20).

*Are Directors satisfied with the progress made so far on data provision to the Fund and implementation of the data provision framework? What are Directors’ expectations regarding further progress to be made over the next two years?*

- The paper proposes one modification to the data provision framework to reflect increased attention to data quality. Otherwise, the paper concludes that the current data provision framework deserves to be maintained, but that additional efforts should be made to strengthen its implementation. In particular, staff sees scope for clarifying guidance on assessments of data adequacy, enhancing the contents of Statistical Issues Appendices, strengthening assessments of the provision of reserve and external debt data, and better

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<sup>33</sup> This estimate only relates to the cost of gathering data for conducting balance sheet analysis in these countries.

reflecting assessments of the adequacy of data provision in staff reports and summings up.

*Do Directors agree that the current framework for data provision to the Fund should be essentially preserved “as is” at this stage? And that changes should be confined to the proposal made in paragraph 18, with additional changes in practice as set out in paragraphs 22 and 23?*

- This review indicates that many of the countries that continue to provide data with long lags have common characteristics (e.g., small population or low income). This suggests that certain types of countries may face particular difficulties in overcoming long-standing statistical capacity constraints. Staff suggests to promote identification of such countries in Article IV consultations and to strengthen discussion of remedial strategies in these cases.

*Do Directors agree with highlighting in Article IV staff reports situations where long-standing capacity constraints hamper data reporting to the Fund? Do Directors agree that in those situations where long-standing problems undermine effective surveillance, staff reports should give greater coverage to medium-term strategies to alleviate these constraints?*

- The paper analyzes data needs arising from four areas of work to strengthen Fund surveillance, namely the balance sheet approach, strengthened debt sustainability assessments, liquidity management, and work on financial soundness indicators; considers the contribution of existing international methodologies; discusses current data availability; and proposes a set of additional steps for meeting these data needs.

*Do Directors agree that a priority in the period ahead is to improve data availability to conduct balance sheet analysis, as contemplated in these four areas of work? Do Directors agree with the seven steps proposed by staff in paragraph 43, or do they see other avenues that should be pursued?*

- Greater transparency has increased the risk that outside users might be confused by publication of different time series for a given variable. Staff proposes to address this risk through a variety of approaches, including efforts to strengthen metadata, inclusion of a general disclaimer on published staff reports, and further efforts to use common sourcing of data.

*Do Directors agree with the approaches proposed by staff to address this risk?*

- Considering that timely, accurate, and comprehensive data are essential for Fund surveillance, this review contains a number of proposals to enhance data provision to the Fund and, generally, to strengthen members’ statistical systems. Many of these proposals are included in, or can be accommodated within, existing budget plans. Some would entail additional costs or would need to be spread over a number of years (paragraphs 55-58).

*In the context of no increase in budgetary resources, what are Directors' views on the resource implications of the paper's proposals and on the appropriate course of action?*

- It is proposed that a further review be conducted in two years' time to assess, *inter alia*, progress made in the priority areas for action established by the Board at the conclusion of this review.

*Do Directors agree?*

**Table 3. Assessment of Article IV Consultation Reports and Summings up 1/ 2/  
1995/96–2003 – Sub-sample of 50 countries**

(In percentage shares of staff reports, unless otherwise indicated)

	Staff Reports												Summings Up			
	Number of Staff reports covered by survey		Discusses data issues in the main text		Assesses the overall adequacy of the data for surveillance		Data assessed to be adequate for surveillance		Data assessed to be inadequate for surveillance		Discusses the implications of data deficiencies for macroeconomic analysis		Paragraph assessing data provision to the Fund		Reference to proposed remedial measures 5/	
	(1)		(2)		(3)		(4)		(5)		(6)		(7)		(8)	
	1995/96	2003	1995/96	2003	1995/96	2003	1995/96	2003	1995/96	2003	1995/96	2003	1995/96	2003	1995/96	2003
All Countries 3/	50	50	88%	76%	74%	74%	59%	70%	41%	30%	33%	64%	24%	38%	38%	52%
Advanced	10	10	60%	40%	70%	60%	100%	100%	0%	0%	0%	NA	0%	40%	0%	20%
In Transition	8	8	75%	75%	63%	100%	60%	75%	40%	25%	0%	50%	13%	38%	0%	50%
Developing	32	32	100%	88%	78%	72%	48%	61%	52%	39%	38%	67%	34%	38%	59%	63%
Memo item: Market access economies 4/	23	23	100%	74%	52%	83%	58%	84%	42%	16%	0%	33%	35%	43%	39%	35%

Source: IMF staff

1/ The assessment was based on a sub-sample of 50 countries drawn from Art. IV Consultation staff reports issued in the 12 month period September 2002-August 2003. The identical sample was used for the comparative assessment in 1995/96 – the period that immediately followed the issuance of operational Guidance on Provision of Statistical Data by members.

2/ In columns 2 and 3, percentages are calculated relative to the total number of staff reports corresponding to the sub-sample (column 1). In columns 4 and 5, percentages are calculated relative to column 3. In column 6, percentages are relative to the percentage of staff reports that have assessed data to be inadequate for surveillance (column 5).

3/ WEO classification (see Appendix III for lists of countries and their classification among country groups in WEO).

4/ Category of market access economies is defined here as all non-industrialized countries (according to the WEO classification) that have received external sovereign ratings from the two major rating agencies, Moody's and Standard and Poor's, as of 2001 (see Appendix III).

5/ Shares in column 8 are relative to those in column 7.

**Table 4. Assessment of Statistical Issues Appendices Attached to Article IV staff reports (1995/96–2003)  
Subsamples of 50 countries**

(in percentage of staff reports, unless otherwise indicated)

	Number of Staff reports covered by survey		Coverage of Sectors 1/		Coverage of external sector 2/						Past statistical weaknesses addressed		Recommendations for addressing remaining deficiencies			
					Reserves			External Debt			IIP					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
	1995/96	2003	1995/96	2003	1995/96	2003	2003	1995/96	2003	2003	1995/96	2003	1995/96	2003	1995/96	2003
All Countries 3/	50	50	88%	92%	20%	25	50%	28%	28	56%	12%	48%	74%	74%	62%	76%
Advanced	10	10	60%	60%	30%	4	40%	30%	3	30%	30%	40%	40%	10%	20%	40%
In Transition	8	8	100%	100%	0%	4	50%	25%	4	50%	13%	38%	88%	88%	88%	75%
Developing	32	32	94%	100%	22%	17	53%	28%	21	66%	6%	53%	81%	91%	69%	88%
Memo item: Market access economies 3/	23	23	83%	100%	17%	17	74%	13%	15	65%	13%	74%	87%	78%	70%	74%

Source: IMF staff

- 1/ Percentages broadly indicate the proportion of Appendices that discussed data issues in the key macroeconomic sectors.
- 2/ The external sector has been covered in greater detail and reflects the requirement that, in addition to the balance of payments, the appendix would also cover other external sector issues such as reserves, external debt and debt service, and the international investment position. See Data Provision to the Fund for Surveillance Purposes, PIN/02/133, available at [www.imf.org](http://www.imf.org).
- 3/ Category of market access economies is defined here as all non-industrialized countries (according to the WEO classification) that have received external sovereign ratings from the two major rating agencies, Moody's and Standard and Poor's, as of 2001 (see Appendix III).

**Table 5 - Lags in Reporting High Frequency Indicators - 2002/3, by Country**

Country	High Frequency Indicators						Total Number of Sectors with lags exceeding 30 days	Country Characteristics							
	International Reserves	Reserve /Base Money	Central Bank Balance Sheet	Broad Money	Interest Rates	CPI		WEO Classification	Program Country	Market Access	Data Dissemination Standard	Nominal 2003 GDP Per Capita (in US dollars). Source WEO	2002 Aggregate Trade (in billions of US dollars). Source IFS	2003 Population (in millions). Source WEO	Post-Conflict Emergency Assistance
Albania		1	1	1			3	Transition	Program		GDDS	1756	1.8	3.1	PCEA
Algeria		--	--	1			1	Developing				2030	29.4	31.8	
Angola				1			1	Developing				920	--	14.5	
Aruba	1	1	1	1	1	1	6	Developing				--	--	0.1	
Bahamas						1	1	Developing			GDDS	16691	2.2	0.3	
Bangladesh		1	1	1	1	1	5	Developing	Program		GDDS	368	12.5	145.6	
Barbados	1			1	1	1	4	Developing		Market	GDDS	9651	1.2	0.3	
Belize		1	1	1	1	1	5	Developing		Market		3407	0.7	0.3	
Bhutan	1	1	1	1	1	1	6	Developing				741	--	0.8	
Bolivia				1			1	Developing	Program	Market	GDDS	1038	3.1	8.1	
Brunei Darussalam	1	--	1	1		1	4	Developing				12335	--	0.4	
Burkina Faso	1	1	1	1			4	Developing	Program		GDDS	331	1.0	12.1	
Burundi		1	1	1		1	4	Developing				87	0.2	6.8	PCEA
Cambodia		1	1	1	1		4	Developing	Program		GDDS	280	--	13.8	
Comoros	1	1	1	1	1	1	6	Developing				484	--	0.6	
Congo, Democratic Republic of the		1		1			2	Developing	Program			110	--	55.1	
Congo, Republic of		1	1	1		1	4	Developing				1190	--	3.3	PCEA
Cyprus	1	1	1	1			4	Advanced		Market		19243	4.9	0.6	
Egypt		1	1	1			3	Developing		Market		1178	17.3	67.3	
Eritrea				1	--	1	2	Developing				166	--	4.4	
France				1			1	Advanced			SDDS	28279	618.1	61.5	
Ghana				1			1	Developing	Program			366	--	19.9	
Grenada	1	1	1	1	1	1	6	Developing			GDDS	4103	--	0.1	
Guatemala				1			1	Developing	Program	Market		1494	8.3	13.0	
Guinea					1		1	Developing	Program			370	--	9.0	
Haiti		1	1	1		1	4	Developing				460	1.4	8.4	
Iran. I. Rep of	1	1	1	1		1	5	Developing				1889	49.4	67.2	
Kiribati	1	n.a.	n.a.	1	1	1	4	Developing				727	--	0.1	
Kuwait						1	1	Developing		Market	GDDS	15699	24.4	2.5	
Lebanon						1	1	Developing		Market	GDDS	4962	7.5	3.7	
Liberia	1	1	1	1	1	1	6	Developing				178	--	3.4	

Country	High Frequency Indicators						Total Number of Sectors with lags exceeding 30 days	Country Characteristics							
	International Reserves	Reserve /Base Money	Central Bank Balance Sheet	Broad Money	Interest Rates	CPI		WEO Classification	Program Country	Market Access	Data Dissemination Standard	Nominal 2003 GDP Per Capita (in US dollars). Source WEO	2002 Aggregate Trade (in billions of US dollars). Source IFS	2003 Population (in millions). Source WEO	Post-Conflict Emergency Assistance
Maldives						1	1	Developing				2122	0.5	0.3	
Malta	1	1	1	1	1		5	Developing		Market	GDDS	10409	5.1	0.4	
Mauritania	1	1	1	1	1	1	6	Developing	Program			389	--	2.8	
Mauritius	1	1	1	1	1		5	Developing			GDDS	4175	3.9	1.2	
Micronesia		n.a.	n.a.	n.a.		1	1	Developing					--		
Morocco						1	1	Developing		Market		1488	19.4	29.9	
Myanmar	1	1	1	1	1	1	6	Developing				180	5.4	53.3	
Namibia	1	1	1	1	1		5	Developing			GDDS	1560	--	2.0	
Netherlands Antilles		1	1	1	1	1	5	Developing				16016	--	0.2	
Nigeria		1	1	1			3	Developing			GDDS	335	22.7	138.9	
Pakistan		1	1	1			3	Developing	Program	Market		488	21.1	149.0	
Papua New Guinea		1	1	1		1	4	Developing		Market		569	2.7	5.6	
Paraguay				1	1		2	Developing		Market	GDDS	948	--	5.9	
Samoa	1	1	1	1	1	1	6	Developing				1672	0.1	0.2	
St. Lucia	1	1		1	1	1	5	Developing			GDDS	3917	--	0.2	
St. Vincent and the Grenadines	1	1	1	1	1		5	Developing			GDDS	3329	0.2	0.1	
Swaziland		1	1	1	1	1	5	Developing			GDDS	1483	1.9	1.0	
Syrian Arab Rep.	1	1	1	1		1	5	Developing				1331	49.1	17.7	
Tanzania		1	1	1	1		4	Developing	Program		GDDS	265	2.6	35.9	
Tonga	1	1	1	1	1	1	6	Developing				1367	--	0.1	
Trinidad & Tobago		1	1	1			3	Developing		Market		7836	7.5	1.3	
Uganda	1	1	1	1		1	5	Developing	Program		GDDS	245	1.6	25.0	
United Arab Emirates		1	1	1	1	1	5	Developing				21503	--	3.8	
Uruguay				1			1	Developing	Program	Market		3275	--	3.4	
Uzbekistan			--		1		1	Transition				350	--	25.6	
Vanuatu	1	1	1	1	1	1	6	Developing				1137	--	0.2	
Vietnam		1	1	1	1		4	Developing	Program	Market		455	--	80.7	
Zambia				1			1	Developing	Program		GDDS	323	--	11.6	
Zimbabwe		1	1	1	1		4	Developing			GDDS	1140	--	11.5	

Sources: Staff reports for Article IV consultations for 124 countries issued September 2002 through August 2003, IFS, World Bank and WEO. n.a. = not applicable



**Table 6 - Lags in Reporting Low Frequency Indicators- 2002/3, by Country**

Country	Low Frequency Indicators 1/					Total Number of Sectors with lags exceeding 90 days	Country Characteristics							
	Trade	Current Account Balance	Overall Government Balance	NA/GDP	External Debt		WEO Classification	Program Country	Market Access	Data Dissemination Standard 2/	Nominal 2003 GDP Per Capita (in US dollars). Source WEO	2002 Aggregate Trade (in billions of US dollars). Source IFS	2003 Population (in millions). Source WEO	Post-Conflict Emergency Assistance
Albania		1		1		2	Transition	Program		GD DS	1,756	1.8	3.1	PCEA
Algeria	1	1	1	1	1	5	Developing				2,030	29.4	31.8	
Angola	1	1	1	1	1	5	Developing				920	--	14.5	
Armenia					1	1	Transition	Program		GD DS	661	1.5	3.8	
Aruba	1	1	1	1	1	5	Developing				--	--	0.1	
Bahamas	1	1		1		3	Developing			GD DS	16,691	2.2	0.3	
Bangladesh	1	1		1		3	Developing	Program		GD DS	368	12.5	145.6	
Barbados		1	1	1	1	4	Developing		Market	GD DS	9,651	1.2	0.3	
Bhutan	1	1	1	1	1	5	Developing				741	--	0.8	
Bolivia				1	1	2	Developing	Program	Market	GD DS	1,038	3.1	8.1	
Brunei Darussalam		1			1	2	Developing				12,335	--	0.4	
Burkina Faso	1			1		2	Developing	Program		GD DS	331	1.0	12.1	
Burundi	1	1		1		3	Developing				87	0.2	6.8	PCEA
Cambodia		1		1	1	3	Developing	Program		GD DS	280	--	13.8	
Canada					1	1	Advanced			SDDS	27,199	479.9	31.6	
Comoros	1	1		1	1	4	Developing				484	--	0.6	
Congo, Democratic Republic of the	1	1	1	1		4	Developing	Program			110	--	55.1	
Congo, Republic of				1		1	Developing				1,190	--	3.3	PCEA
Costa Rica					1	1	Developing		Market		4,263	12.4	4.2	
Cyprus	1	1		1	1	4	Advanced		Market		19,243	4.9	0.6	
El Salvador					1	1	Developing		Market		1,981	5.1	6.6	
Eritrea	1	1				2	Developing				166	--	4.4	
Ghana		1		1		2	Developing	Program			366	--	19.9	
Grenada	1	1				2	Developing			GD DS	4,103	--	0.1	
Guatemala				1		1	Developing	Program	Market		1,494	8.3	13.0	
Guinea	1	1				2	Developing	Program			370	--	9.0	
Haiti		1		1		2	Developing				460	1.4	8.4	
Honduras		1				1	Developing	Program			989	4.3	7.0	
India					1	1	Developing		Market	SDDS	520	105.8	1,068.6	
Ireland					1	1	Advanced			SDDS	37,822	138.9	3.9	

Country	Low Frequency Indicators 1/					Total Number of Sectors with lags exceeding 90 days	Country Characteristics							
	Trade	Current Account Balance	Overall Government Balance	NA/GDP	External Debt		WEO Classification	Program Country	Market Access	Data Dissemination Standard 2/	Nominal 2003 GDP Per Capita (in US dollars). Source WEO	2002 Aggregate Trade (in billions of US dollars). Source IFS	2003 Population (in millions). Source WEO	Post-Conflict Emergency Assistance
Israel					1	1	Advanced		Market	SDDS	16,291	64.9	6.7	
Jamaica	1	1		1		3	Developing		Market	GDDS	2,962	4.6	2.7	
Japan					1	1	Advanced			SDDS	32,859	753.9	127.5	
Kazakhstan	1	1				2	Transition		Market	SDDS	19,48.77	16.3	14.9	
Kenya	1	1		1		3	Developing	Program		GDDS	451	5.4	31.9	
Kiribati	1	1			1	3	Developing				727	--	0.1	
Kuwait		1	1	1		3	Developing		Market	GDDS	15,699	24.4	2.5	
Lebanon	1	1		1		3	Developing		Market	GDDS	4,962	7.5	3.7	
Madagascar	1	1		1	1	4	Developing	Program			298	--	16.9	
Maldives		1	1	1	1	4	Developing				2,122	0.5	0.3	
Malta				1		1	Developing		Market	GDDS	10,409	5.1	0.4	
Mauritius		1		1		2	Developing			GDDS	4,175	3.9	1.2	
Mongolia		1	1	1	1	4	Transition	Program		GDDS	477	--	2.5	
Myanmar	1	1	1	1	1	5	Developing				180	5.4	53.3	
Namibia	1	1	1	1	1	5	Developing			GDDS	1,560	--	2.0	
Netherlands Antilles				1	1	2	Developing				16,016	--	0.2	
Nicaragua		1		1		2	Developing	Program			477	2.4	5.5	
Nigeria	1			1		2	Developing			GDDS	335	22.7	138.9	
Papua New Guinea				1		1	Developing		Market		569	2.7	5.6	
Paraguay				1		1	Developing		Market	GDDS	948	--	5.9	
Samoa		1	1		1	3	Developing				1,672	0.1	0.2	
Saudi Arabia	1	1	1	1	1	5	Developing		Market		9,088	--	22.8	
Senegal	1	1			1	3	Developing	Program		GDDS	632	--	10.5	
Spain					1	1	Advanced			SDDS	20,466	287.0	40.3	
St. Lucia	1	1		1		3	Developing			GDDS	3,917	--	0.2	
St. Vincent and the Grenadines		1		1		2	Developing			GDDS	3,329	0.2	0.1	
Swaziland	1	1	1	1	1	5	Developing			GDDS	1,483	1.9	1.0	
Sweden					1	1	Advanced			SDDS	32,895	147.2	9.0	
Switzerland					1	1	Advanced			SDDS	42,598	163.0	7.3	

Country	Low Frequency Indicators 1/					Total Number of Sectors with lags exceeding 90 days	Country Characteristics							
	Trade	Current Account Balance	Overall Government Balance	NA/GDP	External Debt		WEO Classification	Program Country	Market Access	Data Dissemination Standard 2/	Nominal 2003 GDP Per Capita (in US dollars). Source WEO	2002 Aggregate Trade (in billions of US dollars). Source IFS	2003 Population (in millions). Source WEO	Post-Conflict Emergency Assistance
Syrian Arab Rep.	1	1	1	1	1	5	Developing				1,331	49.1	17.7	
Tanzania		1		1		2	Developing	Program		GDDS	265	2.6	35.9	
Tonga	1	1				2	Developing				1,367	--	0.1	
Tunisia					1	1	Developing		Market	SDDS		16.4	9.9	
Uganda				1	1	2	Developing	Program		GDDS	245	1.6	25.0	
United Arab Emirates	1	1	1	1		4	Developing				21,503	--	3.8	
United Kingdom					1	1	Advanced			SDDS	29,642	611.7	59.4	
United States					1	1	Advanced			SDDS	37,312	1,896.3	291.5	
Uruguay					1	1	Developing	Program	Market		3,275	--	3.4	
Vanuatu				1	1	2	Developing				1,137	--	0.2	
Vietnam		1			1	2	Developing	Program	Market		455	--	80.7	
Zambia				1		1	Developing	Program		GDDS	323	--	11.6	
Zimbabwe	1	1		1	1	4	Developing			GDDS	1,140	--	11.5	

Source: Staff reports of Article IV consultations for 124 countries issued September 2002 through August 2003, IFS and WEO. n.a. = not applicable

1/ "1" means that the CSIT shows the country reported sectoral data more than **90 days** later than the observation.

2/ Subscription/participation as of the end of the sample period.

### SUMMARY OF EXECUTIVE BOARD DISCUSSIONS

1. During the Board discussion Data Provision to the Fund for Surveillance Purposes (the fifth review) in May, 2002:<sup>34</sup>

- Directors welcomed recent progress in the timely **provision of core statistical indicators**, which constitute a minimum data set necessary for surveillance, but noted that in about one third of the cases discussed in staff reports data provided to the Fund are still judged to be inadequate for effective surveillance.
- Directors were generally satisfied with the progress in the **coverage of data issues** in Fund surveillance.
- Recognizing the need to improve further the reporting on the use of benchmarks on **international reserves and external debt** in surveillance, Directors supported the staff proposals to modify the format of the Statistical Issues Annex and Core Statistical Indicators Table to enable more transparent comparisons of countries' practices in reporting data on the core indicators of reserves and external debt/debt service with the benchmarks.
- Directors considered that increasing the frequency and timeliness for the dissemination of reserves template data under the SDDS is not necessary at this time.
- Directors looked forward to members' continued efforts to strengthen the compilation of data that are important for **vulnerability assessments** and national policy-making. Most Directors agreed that staff reports should identify more clearly gaps in data and technical assistance priorities during Article IV consultations and discuss progress in compiling data needed for vulnerability assessments, as relevant. Many Directors considered the compilation of comprehensive data for vulnerability assessments—including data on foreign exposure—to be especially important for countries that borrow substantially on international capital markets in foreign currencies. Most Directors considered that, to further enhance vulnerability assessments, data from debtor countries should be complemented by creditor-side data on cross-border exposures.

2. During the Board discussion on *Data Provision to the Fund for Surveillance Purposes* in June 2000:<sup>35</sup>

- Directors were encouraged that a large majority of members provide data on core statistical indicators on a timely basis;

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<sup>34</sup> See *Review of Data Provision for Surveillance*, PIN/02/133, available at [www.imf.org](http://www.imf.org).

<sup>35</sup> See *Data Provision to the Fund for Surveillance Purposes*, PIN/00/59, available at [www.imf.org](http://www.imf.org).

- Most Directors stressed that it would be useful if, in the future, staff reports would note and draw out the implications of data deficiencies for the macroeconomic analysis included in staff reports;
  - Most Directors supported the inclusion of a paragraph assessing data provision to the Fund in summings up of Executive Board discussions of Article IV consultations;
  - Directors agreed with the proposal to establish the SDDS prescription for international reserves, foreign currency liquidity, and external debt as benchmarks for the provision of data to the Fund in these areas, although it was generally accepted that some elements of the benchmarks would not always be relevant for all members given countries' different circumstances and phases of development. Directors noted that the data required for adequate Fund surveillance in some cases may be more detailed and timely than implied by the benchmarks;
  - Many Directors emphasized that staff reports should compare countries' practices with these benchmarks, indicating the reason for any differences, their significance, and if appropriate, the member's plans for strengthening data provision in these areas;
  - Directors emphasized the need for the Fund to provide technical assistance to help countries strengthen their data systems in line with the benchmarks;
  - Directors also emphasized the critical importance of the Fund being provided with high-quality, accurate, and comparable fiscal data, and urged the staff to continue working on improving the provision of fiscal data to the Fund;
  - Directors agreed that data requirements for surveillance should reflect the present data needs of the Fund. In this light, most Directors agreed that further consideration should be given to expanding the coverage of Article VIII, Section 5 for this purpose.
3. In several discussions the Executive Board has reviewed new surveillance initiatives, including data implications and the importance of addressing gaps and deficiencies in the data available for assessing vulnerability in surveillance.
4. During the Board discussion of *Macprudential Indicators* (MPIs) in June 2001:<sup>36</sup>
- Directors noted that selected MPIs are already being reported as part of Fund surveillance and encouraged such reporting in the future, as warranted, as well as the use of these MPIs in vulnerability assessments;

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<sup>36</sup> See the *Acting Chairman's Concluding Remarks, Macprudential Indicators*, available at [www.imf.org](http://www.imf.org).

- Directors stressed that these analyses and tests should take account of country circumstances and institutional characteristics;
- Directors broadly supported the selection of a set of encouraged MPIs consisting of additional indicators for the banking sector, as well as indicators for the non-bank financial sector, the corporate and household sectors and real estate markets;
- Directors broadly endorsed the proposal for the Fund to encourage and facilitate voluntary efforts by national authorities to initiate dissemination of the core and encouraged MPIs and their metadata;
- Directors supported the proposal for a more systematic compilation of macroprudential data in the context of the Financial Sector Assessment Program (FSAP), and in those Article IV consultations where in-depth financial sector assessments are undertaken. MPIs will also be included in Article IV consultation reports where data are available.

5. During the Board discussion of *Approaches to Vulnerability Assessment for Emerging Market Economies* in October 2001:<sup>37</sup>

- Directors emphasized the importance of addressing gaps and deficiencies in the data available for assessing vulnerability and designing appropriate policy responses;
- Director noted that data needed for vulnerability assessments include those on the foreign exchange exposures of the corporate sector, and on countries' financing needs – including their degree of reliance on debt rollovers, trade finance, and bond finance. Directors generally encouraged Fund staff to focus more intensively on these informational needs in order to ensure that data availability will improve over time.

6. During the Board discussion of *Assessing Sustainability* in June, 2002:<sup>38</sup>

- Directors stressed the importance of integrating information on the financial sector into the sustainability framework.
- A number of Directors also stressed that staff reports should include more comprehensive data on the composition of public debt to underpin sustainability assessments and underscored the importance of continued progress in data provision in this regard.

7. During the Board discussion of *Financial Soundness Indicators* (FSIs) in June, 2003:<sup>39</sup>

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<sup>37</sup> See *Summing Up by the Acting Chairman – Approaches to Vulnerability Assessment for Emerging Market Economies* (10/31/01).

<sup>38</sup> See *Assessing Sustainability*, PIN/02/69, available at [www.imf.org](http://www.imf.org).

- Directors observed that the experience to date in using FSIs in Financial Sector Assessment Programs has confirmed the relevance of the core and encouraged sets of FSIs, despite data limitations and difficulties in their compilation in many countries. They suggested that the two sets of FSIs be kept under review.
- While recognizing resource constraints, Directors encouraged countries to compile at least a core set of FSIs on a continuing basis. They endorsed a coordinated compilation exercise for supervisors and statisticians involving around 60 countries to help build this capacity.
- Most Directors endorsed expanded reporting and analysis of FSIs in Article IV reports, the Global Financial Stability Report, and in the quarterly vulnerability assessment report. Most Directors also supported the dissemination of FSIs on national websites, and consideration of the establishment of a Fund internet gateway in the medium term to provide a single entry point for accessing FSIs for all countries.
- Directors commended the completion of a draft Compilation Guide on FSIs (Guide). Many Directors encouraged members to increase public dissemination of data collected on the FSIs.

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<sup>39</sup> See *Financial Soundness Indicators*, PIN/03/71, available at [www.imf.org](http://www.imf.org).

**Table of Common Indicators Required for Surveillance**

	Date of latest observation	Date received	Frequency of Data <sup>5</sup>	Frequency of Reporting <sup>5</sup>	Frequency of publication <sup>5</sup>	Memo Items:	
						Data Quality – Methodological soundness <sup>6</sup>	Data Quality – Accuracy and reliability <sup>7</sup>
Exchange Rates							
International Reserve Assets and Reserve Liabilities of the Monetary Authorities <sup>1</sup>							
Reserve/Base Money							
Broad Money							
Central Bank Balance Sheet							
Consolidated Balance Sheet of the Banking System							
Interest Rates <sup>1</sup>							
Consumer Price Index							
Revenue, Expenditure, Balance and Composition of Financing <sup>2</sup> – General Government <sup>3</sup>							
Revenue, Expenditure, Balance and Composition of Financing <sup>2</sup> – Central Government							
Stocks of Central Government and Central Government-Guaranteed Debt <sup>3</sup>							
External Current Account Balance							
Exports and Imports of Goods and Services							
GDP/GNP							
Gross External Debt <sup>4</sup>							

<sup>1</sup> Both market-based and officially-determined, including discounts rates, money market rates, rates on treasury bills, notes and bonds.

<sup>2</sup> Foreign, domestic bank, and domestic nonbank financing.

<sup>3</sup> The general government consists of the central government (budgetary funds, extra budgetary funds, and social security funds) and state and local governments.

<sup>4</sup> Holdings by residents and non-residents respectively, including currency and maturity composition.

<sup>5</sup> Daily (D), Weekly (W), Monthly (M), Quarterly (Q), Annually (A); NA: Not Available

<sup>6</sup> Reflects the assessment provided in the data ROSC (published on --) for the dataset corresponding to the variable in each row. The assessment indicates whether international standards in four areas (concepts and definitions, scope, classification/sectorization, and basis for recording) are fully observed (O), largely observed (LO), largely not observed (LNO), or not observed (NO).

<sup>7</sup> Same as footnote 6, except referring to international standards in five areas (source data, statistical techniques, assessment and validation of source data, assessment and validation of intermediate data, and revision studies).



## TRENDS IN THE PROVISION OF CORE STATISTICAL INDICATORS

1. To analyze developments in the timeliness with which data are provided to the Fund, and in the periodicity of their compilation, the staff conducted various surveys and compared the results with earlier outcomes. First, staff conducted a survey of Article IV staff reports issued in the twelve-month period September 2002–August 2003. In line with the earlier reviews of data provision to the Fund for surveillance, the staff compared member country practices in this period with the results of the previous review (2001). Next, and with a view to providing a longer-term perspective of developments, the staff conducted a survey for the period that immediately followed the incorporation of the matrix of core statistical indicators into Article IV staff reports.<sup>40</sup> This latter exercise is, for reasons of efficiency, based on a representative sub-sample of fifty countries.<sup>41</sup>

### 2001–2003

2. **For all high frequency indicators modest gains continued to be made in the number of countries reporting with a lag of one month or less** (Figure 1), with the exception of reserve money, where a marginal decline in the number of reporting countries with a lag of one month or less is noted. Notably, the proportion of countries reporting data on international reserves with a lag of one week or less increased further to 54 per cent in 2003 compared to 49 per cent for the 2001 survey.

3. **Reporting for a significant number of countries does not conform to the recommended timeliness.** At the April 1995 Executive Board discussion on the provision of statistical data by members, Directors determined that members should report as an absolute minimum data listed in the matrix of core statistical indicators in the paper and balance sheets of the central bank. Also, Directors noted that “As many of these indicators as possible, and particularly those relevant for monetary policy, should be reported at least monthly.”<sup>42</sup> Two-thirds to three quarters of members were, according to the latest survey, able to report data (except broad money) with a lag of one month or less, leaving a significant proportion of members not conforming. To narrow the gap in the number reporting with a lag of one month or less, the challenge is one of speeding up compilation and the reporting of available data—data of the relevant periodicity are collected (Table 7),

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<sup>40</sup> Nearly all reports were issued in 1995/96. Exceptions were Cyprus (1998), Malta (1997), Russian Federation (1997), Ghana (1997), Liberia (2000), and Macedonia (1997).

<sup>41</sup> In order to achieve the appropriate representation, the staff used a process of stratification to arrive at the sub-sample based on the 124 staff reports surveyed for the 2002/03 period. The stratification took account of several criteria; including program and non-program, market-access and non-market access, and status concerning data dissemination (SDDS/GDDS). Of the sample of fifty so derived, 10 are advanced countries, 32 developing, and 8 countries in transition.

<sup>42</sup> See *Summing Up by the Chairman, Strengthening Fund Surveillance Provision of Statistical Data by Members* (4/7/95).

4. **The proportion of members reporting low-frequency indicators with a timeliness of one-quarter or less during 2001–2003 regressed slightly.** The reporting regressed for exports/imports, the current account balance, and external debt, and remained unchanged for the other two categories. The slight regression appears to reflect the decline in the proportion of program countries from 35 per cent in the previous survey to 29 per cent in the 2003 survey—data reporting tends to be less frequent for countries without a Fund program (Table 7). Overall, with the notable exception of the overall government balance, 25 per cent of the membership or more did not report data within a one-quarter lag—the generally recommended best practice—and these areas continue to remain a challenge for country authorities and technical assistance providers.

### 1995/96–2003

5. **The overall impression gained from a review of longer-term trends in data provision is that improvements in timeliness are more evident for the low frequency indicators than for the high frequency indicators.** Nevertheless, the most striking improvement was for international reserves where with the proportion of members providing data with a lag of one week or less rose from a quarter to 60 percent (Figure 2). Moreover, the number of outliers for reporting data on GDP/GNI, i.e., those with a lag in excess of one year, also declined markedly over the period. These observations, however, are tempered by some regression in reporting of data on interest rates and exports/imports.

6. Closer examination of interest rate data shows the deterioration arising from the performance of seven countries in the sample of 50, although offset to some extent by that of three others where reporting lags improved remarkably. For data on exports/imports, the deterioration comes from 11 countries while four recorded improvements. Egypt and Iran figured among those graduating to recommended practice in both indicators, while Bangladesh, Myanmar, and Zimbabwe drifted in the opposite direction.

### Compilation frequency and statistical capacity

7. Almost all members have compiled data for high-frequency indicators on a monthly basis or, in many instances, at a higher frequency.<sup>43</sup> However, this capacity for compilation has not fully carried over to the reporting of such data to the Fund. As noted earlier, at least a quarter of the members in the 2002/3 survey were unable to report these data with a one-month lag or less—the norm for these indicators. Further, although the periodicity of compilation seems commendable overall, there are a number of instances where compilation is somewhat delayed after the end of the reference period (month). This unevenness in country practices suggests that the focus of efforts should be as much on speeding up the timeliness and the provision of

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<sup>43</sup> Trends in the frequency of data compilation, i.e., periodicity, are a good indicator of developments in the statistical capacity of a country.

available data to the Fund as on deepening the compilation practices of specific countries—a challenge both for the Fund and the authorities.

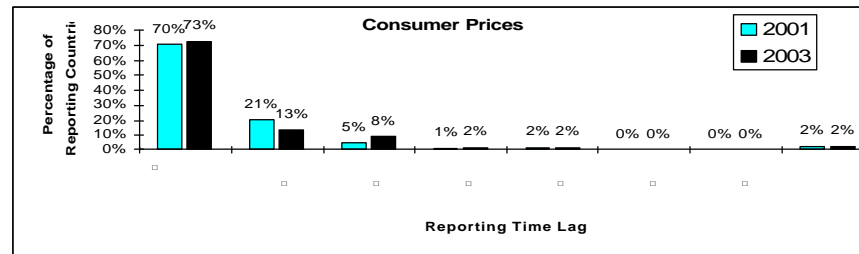
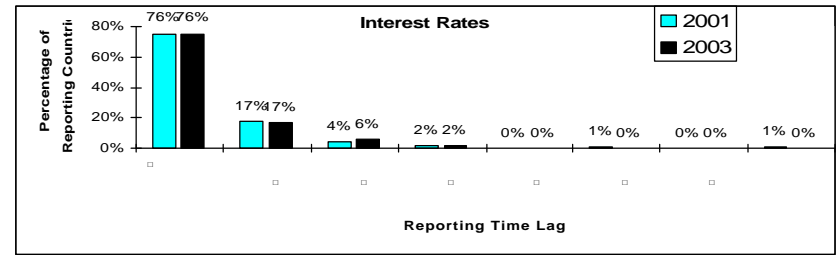
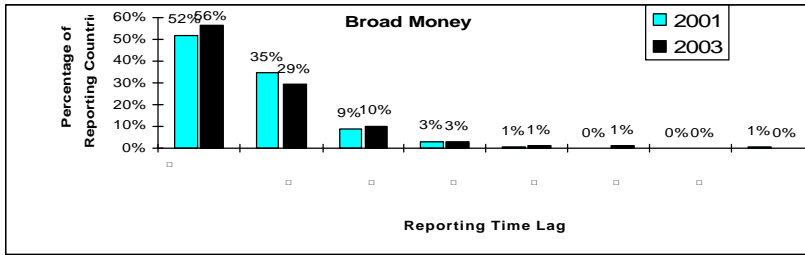
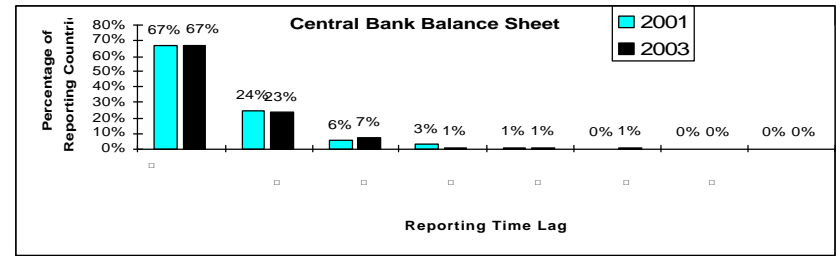
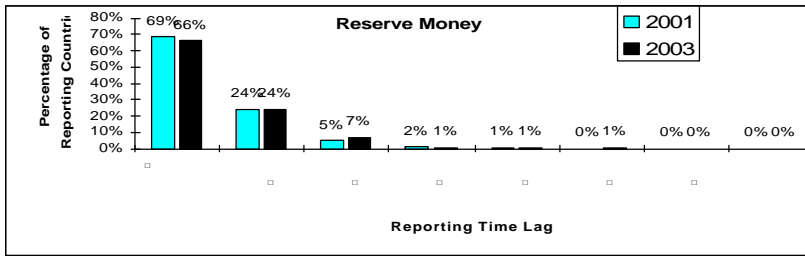
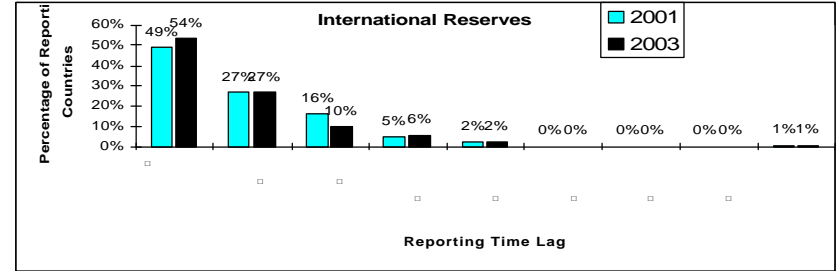
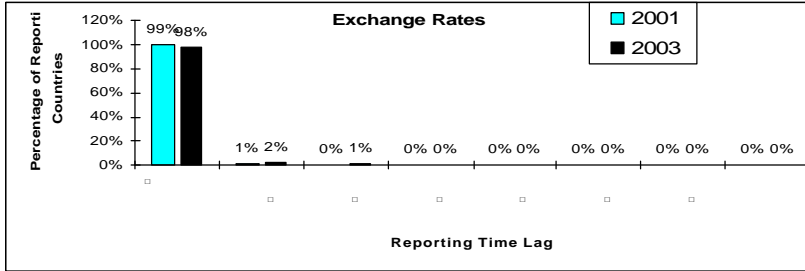
8. **Despite modest improvements in recent years, the periodicity of compilation for the low frequency indicators remains a challenge for a significant share of the membership.** Especially GDP/GNI and external debt remained a major challenge for developing countries—whether or not in program status. Moreover, about 10 percent of developing countries have difficulty with reporting exports and imports on a quarterly basis. These are areas in need of statistical capacity building.

**Table 7. Survey of Core Indicators: Statistical Summary of Periodicity of Indicators**

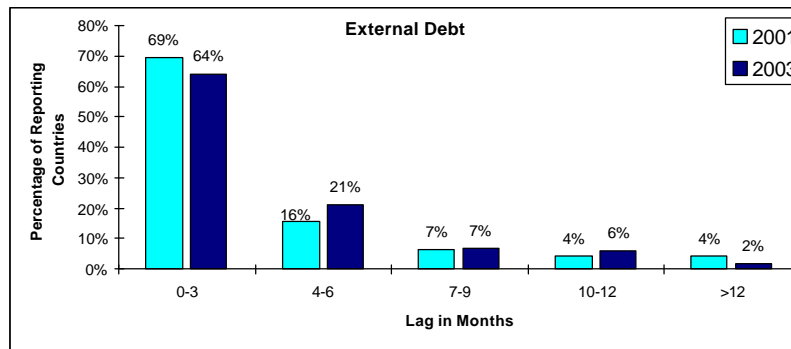
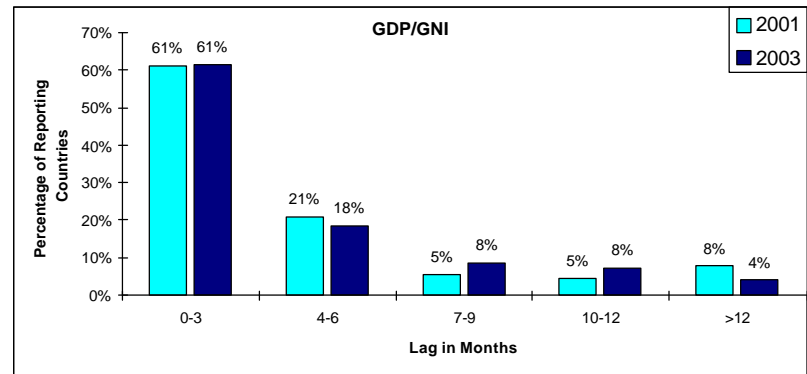
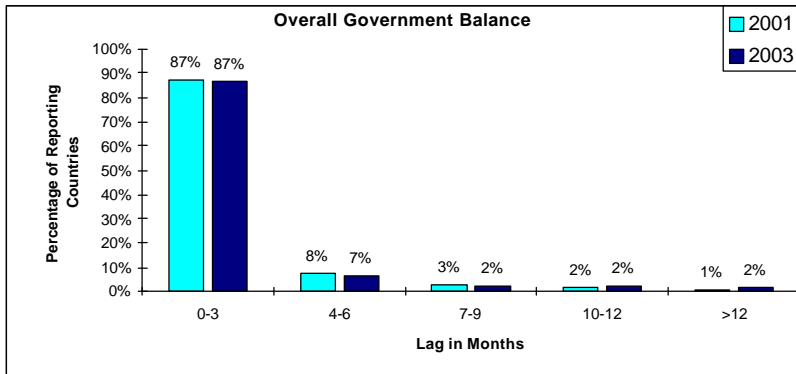
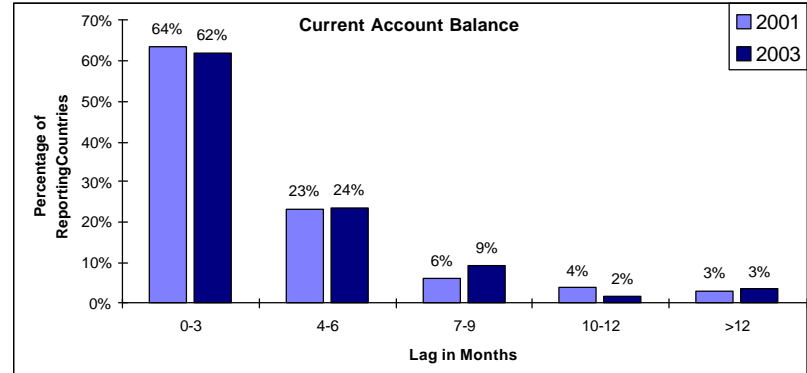
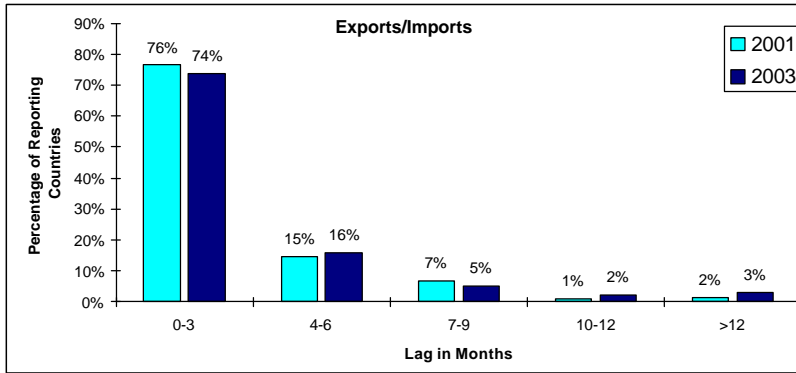
Description	Exchange Rates	International Reserves	Reserve/	Central Bank	Broad Money	Interest Rates	Consumer Prices	Exports/ Imports	Current	Overall	GDP/ GNI	External Debt
			Base Money	Balance Sheet					Account Balance	Government Balance		
<b>All Countries</b>												
Countries reporting	120	121	115	116	119	119	120	121	118	121	119	112
Frequency of Indicator:												
Daily	104	28	17	10	3	51	0	0	0	0	0	0
Weekly	3	18	20	18	12	15	3	2	0	2	0	1
Monthly	13	74	78	87	103	50	111	87	24	71	5	31
Quarterly	0	0	0	0	0	1	5	23	64	31	54	35
Annual	0	1	0	1	1	1	1	9	30	17	59	43
Other	0	0	0	0	0	1	0	0	0	0	1	2
<b>Non-Program Advanced Countries</b>												
Countries reporting	23	23	23	23	23	23	23	23	23	23	23	19
Frequency of Indicator:												
Daily	23	1	0	0	0	23	0	0	0	0	0	0
Weekly	0	1	2	4	1	0	0	0	0	0	0	0
Monthly	0	21	21	19	22	0	22	23	10	13	0	4
Quarterly	0	0	0	0	0	0	1	0	13	10	23	5
Annual	0	0	0	0	0	0	0	0	0	0	0	9
Other	0	0	0	0	0	0	0	0	0	0	0	1
<b>Non-Program Developing Countries</b>												
Countries reporting	53	54	49	50	52	52	53	54	52	54	52	49
Frequency of Indicator:												
Daily	41	5	3	2	0	11	0	0	0	0	0	0
Weekly	2	12	10	8	6	6	1	1	0	1	0	0
Monthly	10	36	36	39	45	32	47	32	5	20	1	11
Quarterly	0	0	0	0	0	1	4	16	27	16	10	14
Annual	0	1	0	1	1	1	1	5	20	17	40	24
Other	0	0	0	0	0	1	0	0	0	0	1	0

Description	Exchange	International	Reserve/ Base	Central Bank Balance	Broad	Interest	Consumer	Exports/ Imports	Current Account	Overall Government	GDP/ GNI	External Debt
	Rates	Reserves	Money	Sheet	Money	Rates	Prices		Balance	Balance		
<b>Non-Program Countries in Transition</b>												
Countries reporting	9	9	9	8	9	9	9	9	9	9	9	9
Frequency of Indicator:												
Daily	7	1	0	0	0	7	0	0	0	0	0	0
Weekly	1	3	1	1	0	0	0	0	0	0	0	0
Monthly	1	5	8	7	9	2	9	7	4	8	1	4
Quarterly	0	0	0	0	0	0	0	2	5	1	8	4
Annual	0	0	0	0	0	0	0	0	0	0	0	1
Other	0	0	0	0	0	0	0	0	0	0	0	0
<b>Program Countries</b>												
Countries reporting	35	35	34	35	35	35	35	35	34	35	35	35
Frequency of Indicator:												
Daily	33	21	14	8	3	10	0	0	0	0	0	0
Weekly	0	2	7	5	5	9	2	1	0	1	0	1
Monthly	2	12	13	22	27	16	33	25	5	30	3	12
Quarterly	0	0	0	0	0	0	0	5	19	4	13	12
Annual	0	0	0	0	0	0	0	4	10	0	19	9
Other	0	0	0	0	0	0	0	0	0	0	0	1

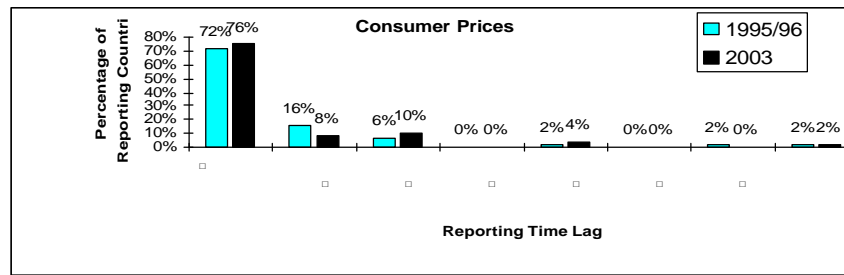
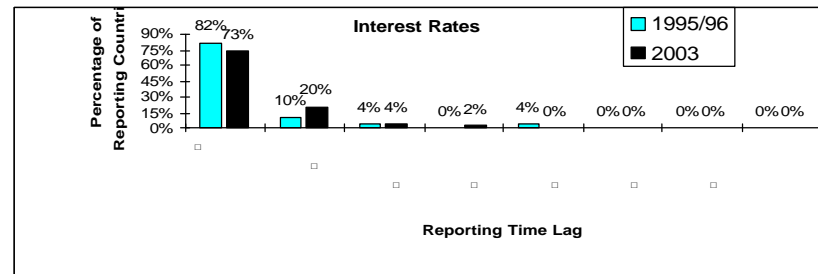
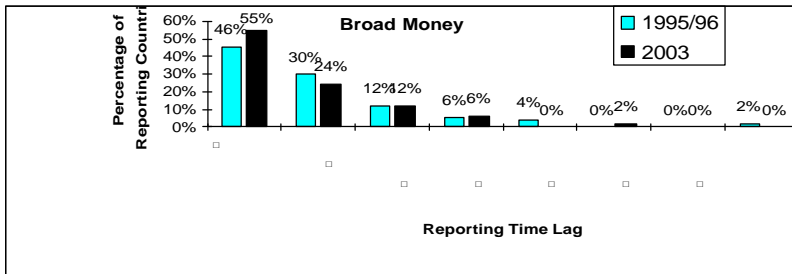
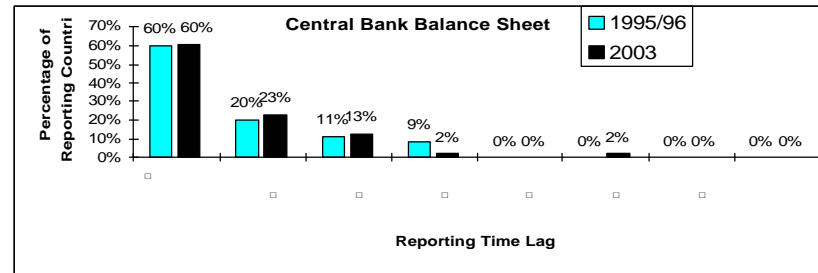
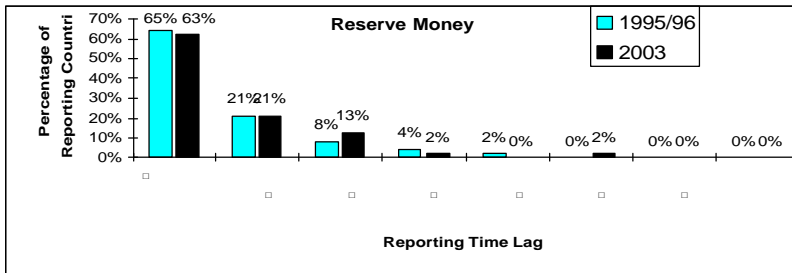
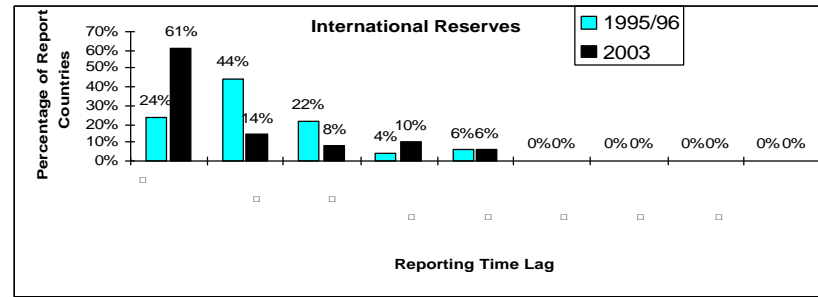
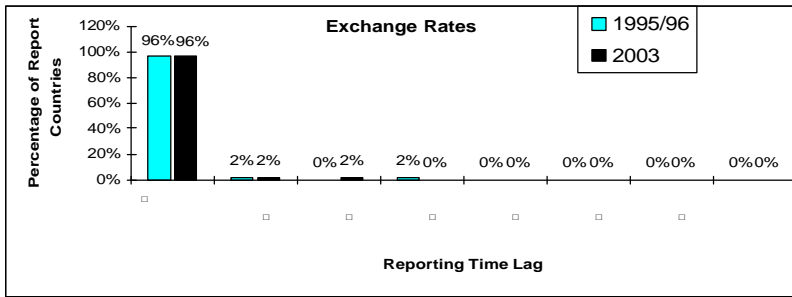
**Figure 1. Frequency Distribution of Data Lags - High Frequency Indicators, 2001/03**



**Figure 2. Frequency Distributions of Data Lags - Low Frequency Indicators , 2001/03**

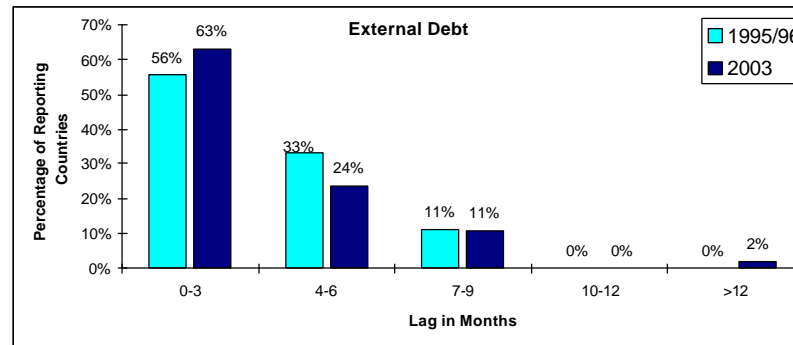
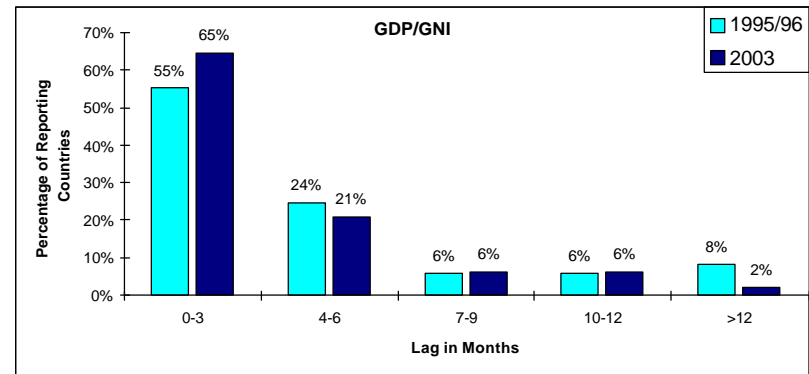
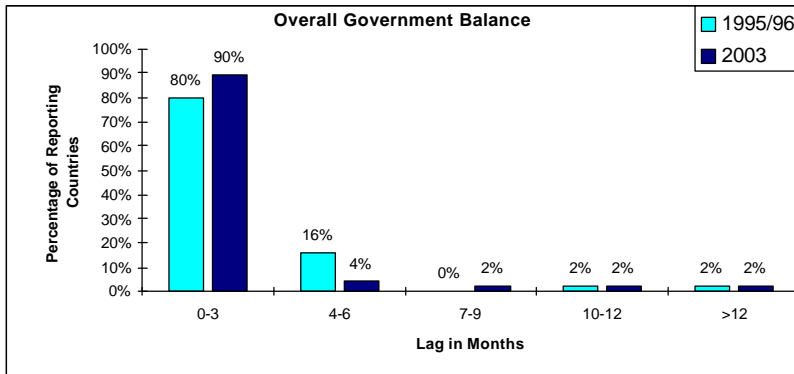
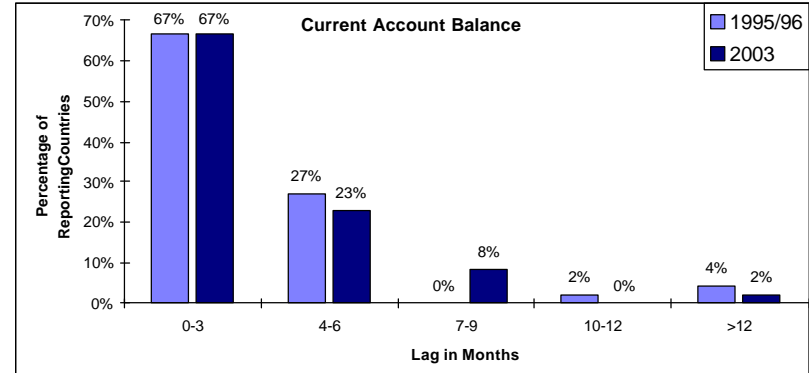
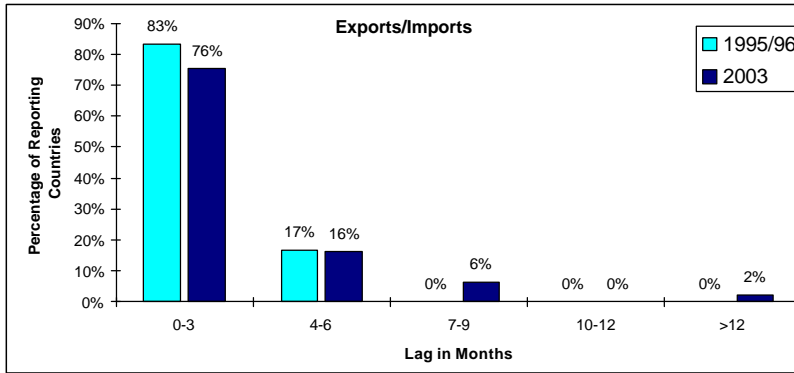


**Figure 3. Frequency Distribution of Data Lags - High Frequency Indicators, 1995/2003**





**Figure 4. Frequency Distributions of Data Lags - Low Frequency Indicators, 1995/2003**



**Table 8. WEO Country Classification**

<b>Advanced Economies</b>	<b>Countries in Transition</b>	<b>Developing Countries (1)</b>	<b>Developing Countries (2)</b>	<b>Developing Countries (3)</b>
Belgium	Albania	Algeria	Honduras	Solomon Islands
Canada	Armenia	Angola	India	South Africa
Cyprus	Azerbaijan	Argentina	Iran. I. Rep of	St. Lucia
France	Belarus	Aruba	Jamaica	St. Vincent & the Grenadines
Germany	Czech Rep.	Bahamas, The	Kenya	Swaziland
Greece	Hungary	Bangladesh	Kiribati	Syrian Arab Republic
Hong Kong SAR	Kazakhstan	Barbados	Kuwait	Tanzania
Iceland	Kyrgyz Rep.	Belize	Lebanon	Thailand
Ireland	Latvia	Bhutan	Liberia	Timor-Leste
Israel	Lithuania	Bolivia	Libya	Tonga
Italy	Macedonia, FYR	Brazil	Madagascar	Trinidad and Tobago
Japan	Mongolia	Brunei Darussalam	Malaysia	Tunisia
Korea, Republic of	Poland	Burkina Faso	Maldives	Uganda
Netherlands	Romania	Burundi	Malta	United Arab Emirates
New Zealand	Russia	Cambodia	Mauritania	Uruguay
Norway	Slovak Rep.	Cape Verde	Mauritius	Vanuatu
Portugal	Slovenia	Chile	Micronesia, Federated States	Vietnam
Singapore	Tajikistan	Colombia	Morocco	Zambia
Spain	Ukraine	Comoros	Myanmar	Zimbabwe
Sweden	Uzbekistan	Congo, Dem. Rep. of	Namibia	
Switzerland		Congo, Republic of	Nepal	
United Kingdom		Costa Rica	Netherlands Antilles	
United States		Ecuador	Nicaragua	
		Egypt	Nigeria	
		El Salvador	Pakistan	
		Eritrea	Papua New Guinea	
		Ghana	Paraguay	
		Grenada	Peru	
		Guatemala	Samoa	
		Guinea	Saudi Arabia	
		Haiti	Senegal	

## Country Classification by Market Access and Data Dissemination Standard

Market-Access Countries (1)	Market-Access Countries (2)	SDDS Subscribers (1)	SDDS Subscribers (2)	GDDS Participants
Argentina	Peru	Argentina	Singapore	Albania
Barbados	Poland	Belgium	Slovak Republic	Armenia
Belize	Romania	Brazil	Slovenia	Azerbaijan
Bolivia	Russia	Canada	South Africa	Bahamas, The
Brazil	Saudi Arabia	Chile	Spain	Bangladesh
Chile	Singapore	Colombia	Sweden	Barbados
Colombia	Slovak Republic	Costa Rica	Switzerland	Bolivia
Costa Rica	Slovenia	Czech Republic	Thailand	Burkina Faso
Cyprus	South Africa	Ecuador	Tunisia	Cambodia
Czech Republic	Thailand	El Salvador	Ukraine	Grenada
Ecuador	Trinidad and Tobago	France	United Kingdom	Jamaica
Egypt	Tunisia	Germany	United States	Kenya
El Salvador	Ukraine	Greece		Kuwait
Guatemala	Uruguay	Hong Kong SAR		Kyrgyz Republic
Hong Kong SAR	Vietnam	Hungary		Lebanon
Hungary		Iceland - Not in Observance		Malta
India		India		Mauritius
Israel		Ireland		Mongolia
Jamaica		Israel		Namibia
Kazakhstan		Italy		Nepal
Korea, Republic of		Japan		Nigeria
Kuwait		Kazakhstan		Paraguay
Latvia		Korea		Romania
Lebanon		Latvia		Senegal
Lithuania		Lithuania		St. Lucia
Malaysia		Malaysia		St. Vincent & the Grenadi
Malta		Netherlands		Swaziland
Morocco		Norway		Tanzania
Pakistan		Peru		Uganda
Papua New Guinea		Poland		Zambia
Paraguay		Portugal		Zimbabwe

### Classification of Countries for Core Indicators, Periodicity, and Reporting Lags - 2003 Data

Program Countries (1)	Program Countries (2)	Non-Program Developing Countries (1)	Non-Program Developing Countries (2)	Non-Program Advanced Countries	Non-Program Countries in Transition
Albania	Tanzania	Algeria	Morocco	Belgium	Belarus
Argentina	Uganda	Angola	Myanmar	Canada	Czech Republic
Armenia	Ukraine	Aruba	Namibia	Cyprus	Hungary
Azerbaijan	Uruguay	Bahamas, The	Nepal	France	Kazakhstan
Bangladesh	Vietnam	Barbados	Netherlands Antilles	Germany	Poland
Bolivia	Zambia	Belize	Nigeria	Greece	Russia
Brazil		Bhutan	Papua New Guinea	Hong Kong SAR	Slovak Republic
Burkina Faso		Brunei Darussalam	Paraguay	Iceland	Slovenia
Cambodia		Burundi	Samoa	Ireland	Uzbekistan
Cape Verde		Chile	Saudi Arabia	Israel	
Colombia		Comoros	Solomon Islands	Italy	
Congo, Dem. Rep. of		Congo, Republic of	South Africa	Japan	
Ecuador		Costa Rica	St. Lucia	Korea, Republic of	
Ghana		Egypt	St. Vincent and the Grenadines	Netherlands	
Guatemala		El Salvador	Swaziland	New Zealand	
Guinea		Eritrea	Syrian Arab Republic	Norway	
Honduras		Grenada	Thailand	Portugal	
Kenya		Haiti	Timor-Leste	Singapore	
Kyrgyz Republic		India	Tonga	Spain	
Latvia		Iran, I. Rep of	Trinidad and Tobago	Sweden	
Lithuania		Jamaica	Tunisia	Switzerland	
Macedonia, FYR		Kiribati	United Arab Emirates	United Kingdom	
Madagascar		Kuwait	Vanuatu	United States	
Mauritania		Lebanon	Zimbabwe		
Mongolia		Liberia			
Nicaragua		Libya			
Pakistan		Malaysia			
Peru		Maldives			
Romania		Malta			
Senegal		Mauritius			
Tajikistan		Micronesia, Federated States of			

### Country Classification - Sub-Sample

Advanced Economies	Countries in Transition	Developing Countries (1)	Developing Countries (2)	Developing Countries (3)
Canada	Hungary	Argentina	Ghana	Papua New Guinea
Cyprus	Kazakhstan	Bangladesh	Honduras	Peru
France	Macedonia, FYR	Bhutan	India	South Africa
Israel	Mongolia	Brazil	Iran. I. Rep of	Tanzania
Italy	Poland	Brunei Darussalam	Jamaica	Thailand
Japan	Russia	Burkina Faso	Lebanon	Trinidad and Tobago
Korea	Ukraine	Cape Verde	Liberia	United Arab Emirates
Norway	Uzbekistan	Chile	Malta	Uruguay
Sweden		Comoros	Mauritania	Vanuatu
United States		Costa Rica	Myanmar	Zimbabwe
		Egypt	Namibia	

**Classification of Countries for Core Indicators, Periodicity, and Reporting Lags - Sub-Sample 1995/96 Data**

<b>Program Countries</b>	<b>Non-Program Developing Countries</b>	<b>Non-Program Advanced</b>	<b>Non-Program Countries in Transition</b>
Argentina	Bangladesh	Canada	Poland
Brazil	Bhutan	Cyprus	Ukraine
Burkina Faso	Brunei Darussalam	France	
Costa Rica	Cape Verde	Israel	
Hungary	Chile	Italy	
Kazakhstan	Comoros	Japan	
Liberia	Egypt	Korea	
Macedonia, FYR	Ghana	Norway	
Mauritania	Honduras	Sweden	
Mongolia	India	United States	
Papua New Guinea	Iran. I. Rep of		
Peru	Jamaica		
Russian Federation	Lebanon		
Uruguay	Malta		
Uzbekistan	Myanmar		
	Namibia		
	South Africa		
	Tanzania		
	Thailand		
	Trinidad & Tobago		
	United Arab Emirates		
	Vanuatu		
	Zimbabwe		

## PERU: STATISTICAL ISSUES

Peru is in observance of the Special Data Dissemination Standard (SDDS) and meets the specifications for coverage, periodicity, and timeliness of the data categories and the dissemination of the advance release calendars, and the metadata have been posted on the Fund's Dissemination Standards Bulletin Board.

### *I. Real Sector*

In June 2000, the authorities published a revised GDP series using 1994 as the base year. However, since 1994, the statistical techniques have been largely based on extrapolation. Intermediate consumption is usually compiled as a fixed ratio of output, and the single indicator method is used to estimate GDP at constant prices. With the exception of mining, electricity, and financial and governmental services, the availability of source data is limited due to resource constraints to visit establishments. Response rates for some surveys are low owing to a collection method based on voluntary response to announcements in the press. In addition, the lack of an adequate business register limits the assessment of how representative the samples are. Also, the lack of detailed tables for supply and use hampers the reconciliation of discrepancies in the data. As a result, changes in inventories are mainly determined as a residual. Even though the quarterly accounts have benefited from some improvements in the timeliness of monthly production indices, their coverage is very limited. In order to improve the estimates, the National Statistics Office (INEI) recently announced its intention to produce a new GDP series using 2001 as the base year, which would become available in the near future. In the meantime, INEI will carry on with the publication of base-year 1994 GDP data.

The weight structure for the CPI was derived from a 1993–94 household expenditure survey. Except for weights, source data are timely and consistent with the technical requirements for producing the index. The coverage of owner-occupied housing, however, was eliminated from the Metropolitan Lima index through the exclusion of imputed rent, a deviation from international practices. Imputed rent is included in the indices of the other 24 cities in the CPI. Thus, the national index is a weighted average of indices that have different coverage. The weights for the WPI are also outdated. The INEI derived the weights from the 1994 input-output table and other reports and publications of relevant ministries. The WPI establishment sample could be improved. Although annual and monthly economic surveys are available, there has not been a comprehensive economic census since 1994. An updated business register does not exist, and INEI has had difficulty in obtaining measure-of-size data for a new establishment sample. With the exception of the outdated weights and small sample, the WPI statistical techniques follow generally accepted international standards.

The authorities monitor labor market developments through four indicators: open unemployment, underemployment, employment, and remunerations. The quality of these indicators has improved over the last two years. However, wage data comes with a relatively long delay; the nationwide unemployment and underemployment situation is surveyed only once a year; and labor productivity data is only published at the time of adjustments to electricity and telecommunications tariffs.

## **II. Fiscal Sector**

For the consolidated central government data, revenues are reported on a cash basis, while expenditures are reported on an accrual basis. The authorities have reported data on the operations of the consolidated central, regional and local governments and debt up to 2001 for publication in the *Government Finance Statistics Yearbook (GFSY)*. The authorities have prepared and sent to the Fund information on the components of consolidated central government expenditures by function. The *International Financial Statistics (IFS)* has published fiscal data through March 2003.

The coverage of national budget accounting is narrower than the fiscal accounting carried out in the program.

## **III. Monetary Sector**

The central bank of Peru (BCRP) is responsible for the compilation and dissemination of monetary statistics. The BCRP prepares and publishes the analytical accounts of the banking system and of the central bank broadly in line with international standards. However, these statistics are disseminated only in a summary form.

## **IV. External Sector**

The BCRP is responsible for the compilation and dissemination of balance of payments and international investment position statistics. The BCRP prepares quarterly data largely in line with the recommendations of the *Balance of Payments Manual, Fifth Edition (BPM5)*. These data are reported to the Fund for publication in the *IFS* and the *Balance of Payments Statistics Yearbook*. Some departures from *BPM5* include the lack of coverage of assets held abroad and land acquisition abroad by residents; lack of separate identification of liabilities to affiliated enterprises; and recording of some services and external debt transactions on a cash basis rather than an accrual basis.

Regarding international reserves, the BCRP has been reporting since August 2001 weekly data in accordance with the *Operational Guidelines for Data Template on International Reserves and Foreign Currency Liquidity*. The BCRP includes the full amount of the liquidity requirements in the reserve template under official reserve assets, but does not register the contingent net drain (as specified in Section III of the Data Template). Peru started to disseminate quarterly data on external debt with a one-quarter lag in end-September 2003. External debt data are not compiled on an accrual basis, as recommended by *BPM5* and the *External Debt Statistics: Guide for Compilers and Users*.



### **Findings of the data ROSC mission**

A ROSC data module mission visited Lima during February 12–26, 2003. Although Peru's macroeconomic statistics are to a large extent adequate for effective surveillance, the mission identified important shortcomings mainly in national accounts and price statistics.

The report found Peru having a legal and institutional framework that is broadly adequate to support the quality of official statistics and protect the confidentiality of individual respondents' data. The terms and conditions under which statistics are collected, processed, and disseminated are available to the public, as are studies and analyses of revisions to macroeconomic statistics. The timeliness and periodicity of most data series meet or exceed SDDS requirements. The methodologies used for compiling macroeconomic statistics broadly follow international standards, with the exception of the wholesale price index.

Statistical techniques and assessment and validation of source and intermediate data are weak for national accounts and, to a lesser extent, for prices and balance of payments statistics. Response rates for surveys are low, particularly for national accounts source data. Government finance statistics compiled by the BCRP are not reconciled with the relevant information from the Ministry of Economy and Finance (MEF). The needs of nongovernmental users of official statistics are not monitored, with the exception of the consumer price index. Statistics are, in general, consistent across sectors, but there are inconsistencies within the national accounts statistics.

The report found several areas where further improvements are needed, including: (i) coordination among the agencies that compile official statistics to avoid duplication of efforts and confusion among users; (ii) simultaneous release of price and national accounts data to all interested users, without privileged access to selected government officials; (iii) establishing an updated business register that provides the basis for sample surveys; (iv) implementation of a new benchmark and base year for GDP; (v) adopting of the methodology used for annual GDP to compile quarterly GDP estimates, at a more aggregated level; (vi) expanding the coverage of the wholesale price index to include mining, oil and gas extraction, electricity and water, and public transportation and communication; (vii) assigning responsibility for compiling and disseminating GFS to a single agency; (viii) reconciling GFS published by the BCRP with the fiscal statistics published by the MEF and the Accountant General's Office; (ix) expanding the coverage of the depository corporations survey; (x) preparing sectoral breakdown of the depository corporations and financial surveys in accordance with the *MFSM* methodology; and (xi) expanding the scope of data sources for compiling financial flows of individual residents.

## DATA COLLECTION AND THE BALANCE SHEET APPROACH IN BRAZIL

- 1. This appendix describes some of the data related issues that may be encountered when implementing the balance sheet approach in Brazil.** A sufficient amount of high quality and timely data is available from both public and private sources. Data on the public sector and banking sector is readily available from the Brazilian Treasury and central bank, while corporate sector data can be obtained from a private sector provider.<sup>44</sup> The only standardized cross-country database utilized in this example was the international investment position (IIP) obtained from the IMF Balance of Payments Statistics. The data presented in the accompanying balance sheet matrix (Table 9) are from the third quarter of 2002 and indicate the extent to which the balance sheet approach could be implemented.
- 2. Even considering the high quality and timeliness of public sector data provision, data limitations are to be expected.** With respect to implementation in Brazil, as is the case in other countries, the most important limitations are: (i) the corporate sector data set only covers the publicly-traded companies on the stock exchange; (ii) information on off-balance sheet risk exposure is scarce; (iii) the data for the financial and public sectors is not fully disaggregated in a matrix-type manner by creditor, currency, and maturity, as would be ideal; and (iv) some data are available only with longer lags.
- 3. Balance sheet data for the public sector cover the general government (federal government, central bank, and state and municipal governments) and public enterprises (federal, state, and municipal).** Data provision by the government fully consolidates the balance sheet of the central bank with the rest of the public sector. Any analysis would likely focus on financial assets and liabilities as opposed to estimating the public sector's contingent liabilities (e.g., pension liabilities), partly because the public sector has in recent years made important efforts to recognize them.
- 4. Financial sector data could be based on data for a sample of the largest banks in Brazil and supplemented by insurance, pension, and investment funds data.**<sup>45</sup> The sample used for Table 9 includes the three largest federal banks, including the development bank BNDES, the large private domestic bank conglomerates, the larger foreign bank subsidiaries, one large corporate-oriented bank, and the two largest remaining state banks. While this sample may not be fully representative, it does include the exposure of the most systemically important banks. For these banks, detailed balance sheets, foreign exchange exposures, interest rate value-at-risk in the trading portfolio and net financial derivative positions are available. However, data on the maturity mismatch of the entire portfolio of banks is more limited. For institutional investors, data is somewhat less complete, but it would be possible to identify respective exposure to the government and corporate sectors. For other credit intermediaries, only aggregate balance sheets are available.

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<sup>44</sup> The Brazilian authorities provide comprehensive and detailed information on the balance sheet of the public sector through various means, including the annual financial debt plan (<http://www.tesouro.fazenda.gov.br>, National Treasury 2003). This presentation differs slightly to ensure homogeneity of treatment across sectors.

<sup>45</sup> The central bank maintains a quarterly database on the top 50 banks, ranked according to net assets less brokerage operations, and regularly publishes a financial stability report.

5. **Data coverage of the corporate sector is limited since no database provides balance sheet information for the whole sector.** The available sample consists of data on more than 260 non-financial companies quoted on the São Paulo stock exchange (BOVESPA) from a private provider, Economatica.<sup>46</sup> The sample includes Brazilian companies that were delisted from the stock exchange and are now listed abroad – a growing trend in recent years. While this data set captures only a subset of the corporate sector in terms of its productive capacity, with about US\$180 billion in annual sales, it provides useful insights to analyze the main financial vulnerabilities of the sector as a whole. In particular, because the set of quoted companies encompasses the majority of companies that have or had access to foreign capital markets, this sample provides a valuable tool to analyze external vulnerability. For example, companies in the sample reported a total of US\$60 billion (December 2001) in foreign currency debt, which was about 70 percent of the overall private non-financial sector external debt.<sup>47</sup>

6. **Gaps in data coverage for foreign exchange assets could be filled from official sources.** While the Economatica database does not cover foreign exchange assets, currency risk could be measured by using official external debt data and assets from the international investment position. The IIP does not identify the corporate sector separately, but it can be assumed that the “other sectors” coincide with the corporate sector. Further, it is likely that all the direct investments abroad belong to the corporate sector—even though some could belong to the financial sector or individual investors.

7. **Data on foreign exchange derivative positions can be obtained through the central securities depository (CETIP) system.** CETIP provides information on the outstanding stock of foreign exchange swaps and non-deliverable forward contracts. Participants in CETIP include major commercial banks, investment banks, broker/dealers, investment banks, stock exchanges, and commodities and futures exchanges. However, because these figures include participants’ operations within their own accounts as well as for the accounts of the non-financial corporate sector, CETIP data more accurately describes corporate sector hedging trends than absolute level.

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<sup>46</sup> Economatica maintains corporate sector databases for most countries in Latin America. Access is only available through subscription.

<sup>47</sup> These two figures are not exactly comparable because companies report overall foreign currency debt, rather than debt owed to nonresidents. However, there is a fair amount of market segmentation, which makes this implicit assumption a reasonable one. Further, the Economatica sample includes some public sector companies – however, Petrobras should be excluded.

In billions of US dollars					
Holder of the Liability	Public Sector	Financial Sector	NonFinancial Sector	Rest of the World	Total
Issuer of the Liability					
<b>Public Sector</b>					
<b>Total Liabilities</b>		<b>160.3</b>	<b>13.3</b>	<b>114.1</b>	<b>287.5</b>
Medium- & Long-term				92.7	195.1
Short-term 1/				21.4	92.5
In foreign currency 2/				105.5	176.8
In domestic currency				8.6	110.6
<b>Financial Sector 3/</b>	<b>40.8</b>	<b>75.3</b>	<b>191.8</b>	<b>45.8</b>	<b>353.6</b>
<b>Deposits and other short-term</b>	<b>11.2</b>	<b>69.9</b>	<b>139.4</b>	<b>35.8</b>	<b>256.4</b>
in foreign currency	0.1	0.0	0.3	35.8	36.2
in domestic currency	11.2	69.9	139.1	0.0	220.2
<b>Medium- &amp; Long-term</b>	<b>29.5</b>	<b>5.4</b>	<b>52.4</b>	<b>10.0</b>	<b>97.3</b>
in foreign currency	0.0	0.0	0.0	10.0	10.0
in domestic currency	29.5	5.4	52.4	0.0	87.3
<b>Equity</b>					<b>212.9</b>
<b>NonFinancial Sector 4/</b>					
<b>Total Liabilities</b>		<b>41.1</b>		<b>68.6</b>	<b>109.7</b>
<b>Medium- &amp; Long-term</b>		<b>24.1</b>		<b>36.0</b>	<b>60.1</b>
in foreign currency				36.0	36.0
in domestic currency		24.1			24.1
<b>Short-term 1/</b>		<b>17.0</b>		<b>32.6</b>	<b>49.6</b>
in foreign currency				32.6	32.6
in domestic currency		17.0			17.0
<b>Equity (capital)</b>					<b>69.0</b>
<b>Rest of the World 5/</b>	<b>38.5</b>	<b>6.5</b>	<b>63.2</b>		<b>108.2</b>
Direct Investment			50.7		50.7
Official Reserves	35.9				35.9
Debt Securities	1.2	0.1	0.5		1.8
Equity Securities		0.6	2.4		3.0
Other Investments	1.4	5.8	9.6		16.8
Sources: Central Bank of Brazil, National Treasury of Brazil, Economatica, IMF, and IMF staff estimates.					
1/ By residual maturity.					
2/ Includes external debt and dollar-linked domestic debt.					
3/ Data for nonbank financial intermediaries are as of December 2001. As data for the financial system are not complete they include liabilities to the rest of the financial system, such as interbank deposits.					
4/ These data refer to publicly-traded nonfinancial companies.					
5/ Data from the International Investment Position, as of December 2001.					